

# ONIONS AUSTRALIA 2020

DRIVING GROWTH FOR AUSTRALIAN ONIONS

NEMATODE CONTROL

INSIDE: YOUR WORK HEALTH & SAFETY POSTER



FROM THE CHAIR Page 2



**DR KEN JACKSON OAM** Page 6



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#### WELCOME

# Welcome to Volume 37 of the Onions Australia annual magazine.

In what has been a year of social shutdowns, it's refreshing to retain a bit of normality in publishing our 'industry bible'.

We've had a bit of a 'change up' with this year's magazine, after self publishing ourselves last year.

This year Onions Australia (OA) has received some levy funds from Hort Innovation to return to publishing the magazine. OA has worked in conjunction with Cox Inall Communications to pull together this year's edition.

It has been one of the bright spots of this terribly frustrating year, which saw society – and the economy – grind to a halt.

However the Australian agricultural industry stepped up and in to ensure there was plenty of fruit and vegetables to feed the nation.

We've tried to take that positive approach and thread it through this year's edition. We've looked at success stories and things that have actually gone right, rather than dwelling on the negative.

Given that both of our national conferences were cancelled this year, we haven't had the chance to catch up much in person.

However, we are so humbled by the support of our major sponsors once again, which has ensured the office continues to run.

As always we encourage you to contact the OA office with any feedback, whether it be brickbats or bouquets – our communication lines are always open.

And we hope you enjoy this read – there's a lot of heart and soul gone into it.

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### Onions Australia Executive Committee

Peter Shadbolt (Chair)

Darren Rathjen (Deputy Chair)

Alan Thierry

Jason Daniell

Greg Bragg

Tim Groom

Jarryd Dolling

Lewis Lydon

Dean Metcalf

Mark Dobson

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#### **Chief Executive Officer**

Lechelle Earl



This project has been funded by Hort Innovation using the onion research and development levy and funds from the Australian Government. For more information on the fund and strategic levy investment visit horticulture.com.au



# FROM THE CHAIR

#### 2020... Where to start? So much has happened already and we're still not at the end of the year.

We started off early in the year with bushfires devastating so many communities, and then COVID-19 changed just about everything we took for granted on a daily basis. But one thing is for sure - it's a good time to be a food producer.

Panic buying and people wanting to make sure their pantries were full has certainly kept marketers on their toes after what was arguably one of the best summers for onion demand and returns.

The food service industry has taken a hit now more than anyone and I am hearing reports of plenty of large onions sitting around in sheds looking for a home. Hopefully we can start to see some normality in demand for large onions.

This year, due to COVID-19, Onions Australia has had to cancel both levy payer meetings, firstly in June with our meeting alongside Hort Connections in Brisbane, followed by the AGM conference which was scheduled for October in Tailem Bend, SA.

Although disappointing for growers and sponsors (for whom we are so grateful), this has actually allowed the OA Executive Committee to meet more regularly via Zoom to discuss issues happening at the time, rather than waiting until we all get together.

This year, a lot of the Exec's time has been taken up with biosecurity issues. Thanks must go to Dean Metcalf for the many hours he put in to represent the committee's views.

On an extremely positive note, the relationship between Hort Innovation and Onions Australia is going really well.

After numerous years of uncertainty and several R&D managers we have Mark Spees representing onions and he is really getting things moving.

Lots of new projects have been approved and there are still a lot more hopefully about to be approved, including projects focused on export. Our marketing levy is being used really well too.

I hope everyone has checked out PHENOMENOM online and you may have noticed Hort Innovation's TV ads featuring the Good Mood Food campaign, which was put together to promote fruit and vea throughout lockdown and has featured onions at various times.

Once again I thank the members of the Executive Committee who give up their time to sit in on the Zoom meetings and contribute to the running of OA and of course I also want to thank Lechelle for all the great work she does in the office.

Wishing everyone a great new season of growing, harvesting and marketing.



PETE SHADBOLT Chair OA



# FROM THE OFFICE

Usually at this time of year, when I sit down to write my yearly wrap up, I reach for last year's edition of the Onions Australia magazine to see what I said.

Funnily enough, last year this column started off with the words "it seems like the Australian onion industry has had the best and worst times in 2019".

And while the onion industry has fared reasonably well during these COVID-19 times, the same certainly can't be said for our nation – and particularly our economy.

I must admit, my heart sank for all the businesses that had to close for months, taking many to the brink. Along with that came the unemployment queue for many, and untold hardships.

But with my onion hat on, I feared the worst when it came to food service and the immediate slump in hospitality purchases of onions.

While consumers may have rushed to supermarkets to stock up on pantry staples – including onions – the food service sales of large onions dwindled.

I did, however, hear from many consumers who were delighted to find larger onions turning up in their supermarkets and greengrocers, so all was not lost. During the early days of the pandemic the office was flooded with calls from growers relaying tales of amazement at the large scale demand. Some buyers were simply asking for whatever product they could get their hands on, and truckloads of onions flowed!

It was a head scratching situation – one where people were losing their jobs left, right and centre, and yet our growers were working around the clock to ensure consumers' needs were being met.

I can't tell you how proud I was to watch as Aussie onion farmers rallied to feed the nation in a time of crisis.

That was perhaps the only shining light of this pandemic for me.

The negative impact of COVID-19 included the cancellation of both our Onions Australia conferences this year – in Brisbane, Qld, and Tailem Bend, SA – which was a hard pill to swallow. However, this insidious virus left us with no other responsible choice. It's certainly been hard not catching up in person to learn how the industry is progressing – thank goodness for Zoom, which has filled that void to some degree.

We look forward – fingers crossed – to seeing everyone at Hort Connections in June and Tailem Bend in October.

The Executive Committee members met more regularly during the height of the restrictions, with members finding it beneficial to touch base every 6-8 weeks, rather than just at conferences.



LECHELLE EARL CEO OA

One of our key focus areas this year was biosecurity, with many hours dedicated to the matter. As always the minimisation of any threat to our growers remains foremost in our mind.

And, as always, much time was spent working on chemical related issues. We are fortunate to have such great support from our key strategic partners who are only a phone call away when it comes to solving access matters.

However, as time goes along the withdrawal of certain chemistry is making this challenge even harder. OA is continuing to push and campaign for improved supply, and is always looking to work with suppliers to access new chemistry.

In coming to a close, I would like to genuinely thank all of our key strategic partners whose support has ensured the OA office remains open. I would also like to thank the OA Executive Committee for their hard work and dedication during a tough year.



# UPDATE ON THE ONION FUND FROM HORT INNOVATION

In mid-July, the Onion Strategic Investment Advisory Panel (SIAP) connected via a teleconference to review the current strategic investment plan for the onion industry and be updated on current expenditure and the financial forecast.

Present at the July meeting were SIAP members Yvonne Smith, Richard Jones, Tim Groom, Peter Shadbolt, Steven Rathjen, and Kees Versteeg and Hort Innovation Industry Strategic Partner Mark Spees.

Panellists were also updated on the actions arising from the previous meeting of the SIAP and advice was sought on the draft Onion Investment Plan. Following is a summary of the meeting.

### ONION INDUSTRY RESEARCH AND DEVELOPMENT (R&D) FUND

#### Onion Industry Development:

The SIAP provided support for investment in an Industry Development Officer (IDO) role that provides a conduit for research and marketing between industry, Hort Innovation and providers in the areas of agronomy, export facilitation, business development and leadership.

The SIAP expressed concern around the risk of duplicating existing networks, however were keen to look at the option to collaborate with the VegNet program in the future, on the basis that the right people were appointed to the task, and that Onions Australia had appropriate linkages with the project. In the first instance, an investment in developing regional onion extension plans was supported. A role in engaging with agronomists and seed breeders in extension activity was also identified

eDNA Sampling Regime for Vegetable Industries: The SIAP supported that a more refined proposal for this project was required, including a clear sense of the return on investment and the cost to the onion industry.

# Optimising chemical and cultural management of onion white

rot: The SIAP provided strong support for this investment and Hort Innovation will work with key growers and will utilise previous research recommendations from VN14001 (Development of an onion white rot forecast model for Tasmania) in mind to develop a Request for Proposal.

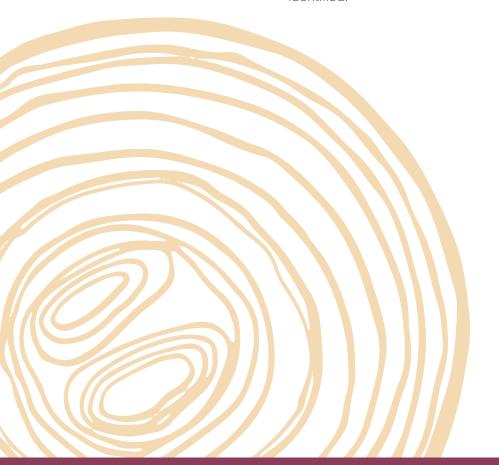
Epidemiology and Management of Fusarium Basal Rot in Onions: The SIAP supported an investment by using a literature review approach in the first instance followed by work to evaluate controls (including biological and cultural controls).

Weed Management: The SIAP supported further development of this investment opportunity and Hort Innovation agreed to work with industry to define the scope to screen new and existing chemicals for weed management over the range of Australian onion growing conditions.

#### Crisis Management Plan:

Consistent with previous advice, the SIAP supports such an investment, with opportunities to find efficiencies to be explored.

Onion Nutrition Education and Food Industry Programs: The SIAP supported this potential investment, noting bold approaches are required to get people to see additional health benefits of eating vegetables, and hopefully immunity benefits may provide that incentive at this time. It will be critical to identify synergies, cost efficiencies in delivering the Onion Nutrition Education and Educating the Food Industry Programs in parallel.



#### Phenomenom Resource Extension:

The initial Phenomenom project looked at increasing kids' education about vegetables. The SIAP supported this further investment and the role of the Hort Innovation Marketing Manager to ensure the investment represents value for money, and that it is scoped to fit within budget. Hort Innovation agreed to provide the Phenomenom team with the idea to have follow up surveys to understand whether motivation to sustain behaviour change is achieved down the track.

#### Consumer Use and Attitudes Study:

The SIAP supported this investment on the basis that efficiencies and cost savings could be identified, particularly given there are opportunities for Zoom delivery during COVID-19 restrictions.

Export Strategy: The SIAP supported this investment, acknowledging the need for a strategy where competitiveness issues are addressed, a competitive advantage is developed, barriers and issues are understood, and that builds on previous work in this space, in a shorter time frame. It will be important to ensure current exporters are not disadvantaged.

#### Taste Australia International Trade

Program: The SIAP supported an investment in Taste Australia Trade Shows as they become available, and Retailer Education development. The SIAP did not support the Consumer Insights piece at this time, suggesting it may be more appropriate down the track.

Market Intelligence: The SIAP supported investment in this project which would take place after the Export Strategy is delivered and once the focus markets are determined.

Benchmarking Program: The SIAP supported the development of a much smaller pilot benchmarking activity, so that a baseline can be developed and trialled with a few growers.

Grower Roadshow: The SIAP were supportive of the investment and asked that where possible to combine the activity with other high value activities to maximise attendance. It would be good to include WA as a potential roadshow activity.

### ONION INDUSTRY MARKETING FUND

#### Good Mood Food Proposal:

The Good Mood Food is Hort Innovation's direct to consumer marketing initiative encouraging Australians to eat more fruit, vegetables and nuts. The SIAP supported an investment in the next phase of The Good Mood Food Campaign with bespoke onion content that will integrate the proposed Onion Brand Strategy for FY21. The SIAP were also interested to explore opportunities for growers and companies to co-invest in this opportunity.

FY21 Onion Brand Strategy: The SIAP supported the strategic marketing priorities and the range of approaches to deliver against those priorities. The following areas were also deemed worthy of further exploration:

**Inspiration:** opportunities to partner with other industries e.g. mushrooms in the near term and MLA further into the future

**Partnerships:** work with retail to develop messaging that addresses the need to sell larger onions e.g. for larger families

**Food service:** explore ready-made meals

**Health benefits:** looking closely at the ability of onions to boost immunity now and into the future

**Target market:** focus on families, but also look to broaden reach when using social channels and through The Good Mood Food campaign.

FY21 Brand Plan Activity Calendar and Budget: The SIAP supported the calendar and budget as presented and also expressed interest in a slight increase in funding if feasible. In the longer term there is some interest in exploring ways in which to increase the marketing levy, and industry discussions to be potentially supported by a data and insights analysis.

#### **NEW PROJECTS ON THE HORIZON**

Two new projects have recently been listed for tender with support from the Onion Fund, including a project to develop new recipes using Australian onions as well as the development of national onion industry extension strategy.



# DR KEN JACKSON OAM

Ken Jackson, a former chair of the Onion R&D Committee and recipient of the Reg Miller Award in 2008 received an OAM in this year's Queen's Birthday Honours List for his contribution to horticultural research.

Ken graduated from the Queensland Agricultural College in 1971 with 1st Class Honours. He was then appointed as an agronomist at the Biloela Research Station with the Queensland Department of Primary Industries (DPI).

After 14 years in Central

Queensland working on safflower, grain lupins and guar, Ken was transferred to Gatton Research Station to work on heavy vegetables which included potatoes, onions, sweet potatoes, pumpkins and garlic. Here his first task was to develop the US potato variety Atlantic for release to industry as a crisping variety. Highlights of his sojourn at Gatton include the completion of his PhD in plant nutrition and conducting the first field testing in Australia of a genetically modified crop (potatoes) in conjunction with CSIRO in Canberra. He carried out extensive testina of potato varieties from the national breeding program in Victoria and onion varieties from national and international companies. His research also examined potential chemical control of white rot in onions and garlic.

He was responsible for the release of the garlic varieties Glenlarge and Southern Glen and organised the release of the onion varieties Wallon Brown and Wallon White that Greg Wallwork had developed within the Gladallan varieties.

During this time, he supervised master and degree students whose research investigated such areas as the cause of brown fleck in potato, the effect of feathery mottle virus on sweet potato yield, growth and development of onions in a subtropical environment and pungency and storage quality of onions grown in the Lockyer Valley.

In 1997 with the formation of the Queensland Horticulture Institute. Ken became the program leader for vegetable research and extension throughout the state. In 1999 he became the Acting Director of the Institute. In 2002 he left the DPI and for the ensuing 18 years undertook part time lecturing and tutoring to certificate, diploma, degree and postgraduate students at the UQ Gatton campus in a diverse range of topics including systems and knowledge management, horticultural and field crop production, including plant nutrition, irrigation and pest and disease management. He enjoyed this period of his career immensely as he was able to share his work experiences with

young enthusiastic students. It was during this period that he was also involved with the national onion industry. Ken is still involved with the UQ Gatton Campus doing the occasional lecture and some assignment marking.

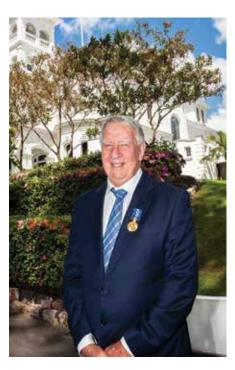


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Western Australia Danie Oosthuizen 0417 930 233

New South Wales Charlie Vella 0419 286 370 National Product Development Manager Dry Seeds Greg Hall 0417 227 873



SEEDS

## THE GOOD MOOD FOOD: CELEBRATING FRESH AUSTRALIAN PRODUCE

The adversity experienced by Australian growers over the past 12 months in the form of drought, bushfires and floods has presented challenges in all areas, ultimately impacting mental wellbeing and mood.

COVID-19 has presented additional challenges, impacting grower access to the export market, food service and the way consumers behave when purchasing and consuming fresh produce.

Acknowledging these pressures on the industry, Hort Innovation launched 'The Good Mood Food' campaign, aiming to support growers by promoting the benefits of eating good quality, fresh fruit, vegetables and nuts in that 'when you eat better, you feel better'.

Using television advertising, public relations, social media and a range of partnerships, the campaign has been able to focus on both season and occasion, showcasing the versatility of Australia's horticulture sector.

Expecting to reach up to 98% of Australians, the campaign will not only highlight the importance of provenance and support locally grown produce but also how foods can boost one's mood and therefore overall health and wellbeina.

With the understanding that as a result of COVID-19, consumer behavior has dramatically shifted, now more concerned by price, quality and accessibility, the campaign aims to educate Australians on the good they can do for their health as well as the good they can do for their local producers.



You can find out more about The Good Mood Food campaign by visiting:

- 7 www.thegoodmoodfood.com.au
- www.horticulture.com.au/growers/the-good-mood-food

Or for more information, reach out to the Hort Innovation team at thegoodmoodfood@horticulture.com.au

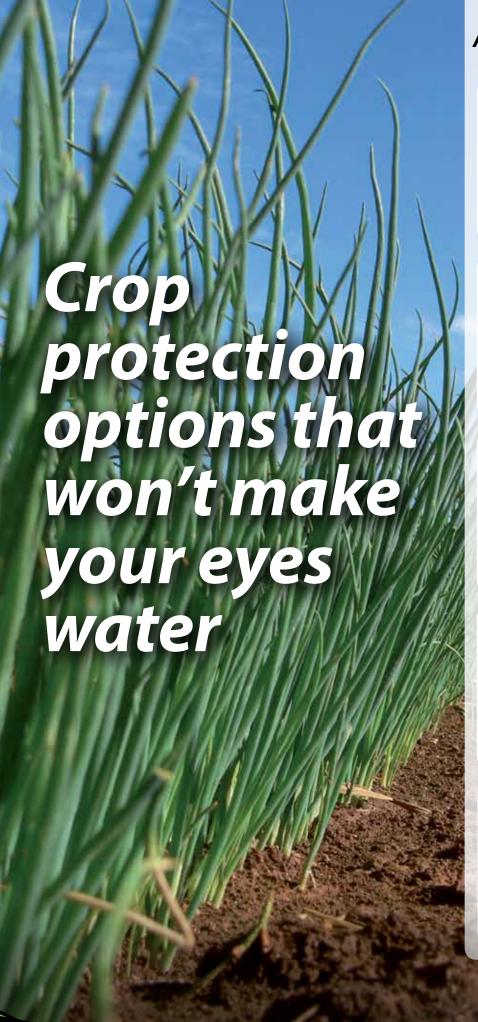
According to Hort Innovation CEO Matt Brand, "the campaign grew out of the need to support growers across Australia and stimulate demand for fruit, vegetables and nuts as we go through and beyond COVID-19."

Whilst campaign activity was set to run between May and September 2020, there is potential for the campaign to be extended, focusing on seasonal outcomes and health-focused demand from consumers, continuing to educate and inspire Australians about the health benefits of the locally grown produce that is available to them.

This would present an opportunity for Onions Australia's marketing program, funded through industry marketing levies, to draw upon the message of The Good Mood Food program and explore ways to promote the specific benefits of onions to the consumer environment.

With plenty of existing R&D investments already made by Hort Innovation in the health and nutrition space, The Good Mood Food platform has plenty of resources to draw upon and share with the wider horticulture sector to continue developing and building upon key educational messages.





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# MINOR USE PERMITS

The Hort Innovation Onion Fund supports the submission of applications for new and renewed minor use permits for the industry, as well as data generation activities to support chemical permits and registrations, and strategic agrichemical reviews.

Together these efforts provide industry access to safe, relevant and effective chemicals for the management of pests, weeds and diseases.

Below is a list of minor use permits for the onion industry, current as of 4 May 2020.

Hort Innovation updates this table on a quarterly basis for this website. In the meantime, minor use permit updates are circulated in our Growing Innovation e-newsletter, which levypaying members receive monthly. Not a member? Sign up for free here. Permits are also searchable at any time on the Australian Pesticides and Veterinary Medicines Authority (APVMA) website at portal.apvma.gov.au/ permits.

#### **CURRENT PERMITS**

Permit IDS	Description	Date Issued	Expiry Date	Permit Holder
PER13119 Version 5	Diazinon / Onions / Onion thrips (TAS only)	06-Mar-12	31-May-23	Hort Innovation
PER14602 Version 4	Boscalid (Filan), Iprodione (Rovral Aquaflo) & Chlorothalonil (Bravo) / Onion seed & Onions / Neck Rot ( <i>Botrytis alli</i> )	24-Jul-14	30-Sep-23 AOIA C/Hort Innovation	
PER13698 Version 3	Phosphorous acid / Lettuce (leaf and hydroponic), Fennel and Bulb (Alliums) Vegetables – bulb onion, garlic, leek, shallot, spring onion and tree onion / Downy Mildew	01-Oct-12	30-Sep-22	Hort Innovation
PER14773 Version 3	Bentazone-sodium (Basagran) / Onions / Broadleaf weeds	16-Apr-14	31-Jan-23	AOIA C/Hort Innovation
PER80282 Version 2	Alpha-Cypermethrin / Onions / Onion thrips	16-Dec-14	30-Nov-20	AOIA C/Hort Innovation
PER84734 Version 2	Haloxyfop (Verdict) / Bulb onions / Storksbill & various weeds	19-Dec-17	31-Dec-24	Hort Innovation
PER84808	Ethofumesate (Tramat) / Bulb onions / Broadleaf and grass weeds as per product label	20-Feb-18	28-Feb-23	AOIA C/Hort Innovation
PER86865	loxynil (South African formulation) / Onions (field grown) / Annual and broadleaf weeds as per Totril Selective Herbicide label	10-Aug-18	31-Aug-21	AOIA C/Hort Innovation
PER80060 Version 3	Dimethenamid-P (Frontier-P Herbicide) / Bulb Onions / Nutgrass / Purple Nutsedge (suppression only) WA only	31-Aug-15	31-Jul-21	WA Aust Vegetable Growers Ass
PER81876 Version 3	Abamectin / Vegetable Leafminer (suppression only) / Various Vegetables including Bulb onions	24-Jun-16	30-Apr-24	Hort Innovation
PER87914	Emergency Permit – Use and supply of an unregistered AgVet chemical Bromoxynil (Nufarm Maya Herbicide) Unregistered / Onions / Broadleaf weeds	22-May-19	31-May-21	AOIA
PER89331	Spinetoram (Success Neo Insecticide) / Bulb Onions / Fall Armyworm (Spodoptera frugiperda)	23-Mar-20	31-Mar-23	Hort Innovation
PER89293	Methomyl / Bulb onions / Fall Armyworm (Spodoptera frugiperda)	10-Apr-20	30-Apr-23	Hort Innovation
PER89185	Flonicamid (Mainman) / Bulb Vegetables (onions, shallots, chives, leeks, fennel (bulb) and spring onions) / Suppression only of: Onion Thrips & Western Flower Thrips	6-Aug-20	31-Aug-23	Hort Innovation



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Active Ingredient



## DRIVING GROWTH FOR **AUSTRALIAN ONIONS**

#### INTRODUCTION

A project seeking to gain a deeper understanding of onion consumers, including their consumption habits, attitudes and needs has been completed, providing key information that will help industry increase demand for Australian onions.

Commencing early in 2019, the project (VN18001) delivered by independent research company fiftyfive5, had the overall aim of creating a framework which could then be further utilised by the Hort Innovation Onion Fund to explore opportunities for the Australian onion industry to grow consumption.

#### **METHODOLOGY**

The project used a number of research methods to determine consumer sentiment and develop a plan for growth, including store visits to various retailers, an online survey of recent purchasers, and a workshop to review customer segments. The research undertaken also looked at identifying and prioritising growth drivers.

More than 1000 purchasers of onions in the last three months were interviewed to understand who is buying, why they are buying, how much, and when purchases are being made.

#### **RESULTS**

There were a number of key findings from the research, including that onions are performing well, with high market penetration (on par with carrots and tomatoes), and there are positive perceptions and strong volumes per shop. There are also very few 'issues to address', meaning that there is limited scope for category growth.

The research also revealed that some of the key barriers to consumption were saliency as well as a lack of usage in everyday meals

This information correlates with the finding that category momentum is flat, with the same quantity of onions being purchased as two years ago. The results also showed that 65% of purchasers buy every two weeks or less, so they are not a frequently purchased item.

#### **DRIVERS TO INCREASE** CONSUMPTION

Onions are widely loved, and the research showed that purchasers do know how to cook with them and enjoy the taste and flavour they add. Specifically, the research discovered that onions are used mostly in meals at dinner time, in pasta sauces, casseroles, curries and stir-fry.

There is an opportunity to get consumers purchasing more frequently, and one of those drivers is the development of new meals and methods of cooking with onions.

The majority of onion purchases are planned and regular (58% purchased because their stocks were low) and one way to increase consumption is to help consumers get through their stock so they buy more, and that is to expand the number of meals containing onions.

While taste, flavour and versatility are the key drivers for consumption - health benefits are not a big driver at the moment and there is real potential to dial this up.

Educating consumers more about specific onion varieties and how

they can be utilised, for example, as the hero in a dish (raw for red onions, brown for being more versatile) is also a driver for increasing consumption.

#### CONCLUSION

Research undertaken by marketing project (VN18001) has determined that the focus should be on moderate and occasional users to help grow onion consumption, but there is a need to inspire and educate those occasional users.

The project has identified five potential positioning territories that could be leveraged according to different opportunities. Two relate to existing territories that onion marketing campaigns have already begun addressing, including 'keeping it fresh' and 'food ninja' (talk about the specific health benefits, and onions are a secret weapon). Another three territories, 'everyone's favourite', 'effortless flavour' and 'level up' are all designed to help bring onions to the fore, use the right onion for the right meal, and use onions in everyday meals for ease and impact.

The project reveals that the overarching position of any future campaign aimed at increasing onion consumption should be to bring onions to the fore, connect with everyone and excite and inspire consumers to use onions in new ways.

#### A snapshot - onion buying segmentation and attitude

% of buyers	Description and attitude
31%	Cooking simple meals with few ingredients, generally eat the same things
35%	Cooking family favourite meals, they have kids and family in mind and are looking for value for money
10%	Those just looking after themselves or a partner, health is important, they are cooking meals from scratch and also looking for value for money
24%	These are the creative and confident foodies, have family and kids in mind, interested in food origins, have a large repertoire of meals and health is important

<sup>\*</sup>this data helps target opportunities for increasing consumption



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# TALKING ABOUT TASMANIA

lan Locke, Tasmanian Fruit & Vegetable Export Facilitation Group. Ph: 0438 911 319 E: ian.locke@tasfruitveggroup.com.au

# It has been a challenging time for Tasmanian onion growers and exporters in season 2020.

From a weather perspective, the hot dry conditions that were experienced pre-Christmas 2019 were more than over-compensated with the wettest Autumn in 45 years. Even I wasn't in the industry then, and I doubt others who are onion growers were either!

As exporters were packing early season harvests, there began the first evidences of COVID-19, with the resulting increase in cases soon escalating an epidemic (in China) to a pandemic (global). COVID-19 has changed everyone's life and we now talk of the "new" or the "next" normal.

A number of grower/packers in Tasmania were able to meet with Edward van Luchene who visited us in mid-February. And that was just about the last overseas visitor we have had.

In 2020, onion exports from Tasmania have continued despite the challenges of sea freight as the shipping industry adjusted to a significant decrease of global trade and demand for vessels. Demand was steady and contracts delivered.

What was happening in Australia as the lockdown shifted demand from food service to retail was reflected in overseas markets; although Australia was the world leader in panic buying of toilet paper.

Exports of onions to May 2020 reflect a 23% decrease over 2019 with tonnage to all destinations being 27,350. Total value was AUD22.66 million (down 24%) but Free On Board (FOB) price at 83c/kg was only marginally down compared to 2019. Tasmania continues to maintain a 60% share of all exports.

Other trends were that Japan slumped further to 600 million tonnes (-70%) and the Middle East as a market was about 3,730 million tonnes. Someone is doing some good work there. I understand that Japan started importing onions again in July which just shows the vagaries of many markets.

Indonesia as a market did not open up until late March and our friends across the ditch in New Zealand got the early jump on us. Such was the shortage that the market was unregulated until May 31 (no quotas/permits were necessary). Exports to the end of May were 700 million tonnes - a decrease of about 20%.

The project Vegetable Export Facilitator (VG16085), funded by Hort Innovation, was extended to include onions. Once the extension was up and running, it provided the opportunity to work with growers and packers as they sought to gain access to markets.

I deliver the project in Tasmania and my colleagues Peter Hockings and Manus Stockdale deliver in Queensland, and Western Australia and South Australia respectively. In Tasmania – and for the rest of Australia – market issues have been around the following topics:

- The need for phytosanitary certificates for product shipped to Europe.
- Advocating for market entry to Indonesia prior to Indonesian government opening the market completely in March.
- Advocating against the Department of Agriculture, Water and the Environment's (DAWE) move to increase export charges for plant products (onions) by 200%. This proposal was withdrawn by DAWE in June.
- Undertaking a testing regime to remove the requirement for onions to be fumigated prior to export to Indonesia due to Brown Wheat Mite.
- Raising the challenges of providing paper-based certificates to importing country regulators to have them move to accepting electronic copies.
- As COVID-19 impacted on sea freight providing support to exporters as their customers moved from supply chains based on "Just-In-Time" to "Just-In-Case."

In early April, after the real impact of COVID-19 became very apparent, our Group (Tasmanian Fruit & Vegetable Export Facilitation) established THE OTHER SIDE (TOS) Project. THE OTHER SIDE was designed to identify and facilitate options, tools and a knowledge bank of resources that Tasmanian horticulture producers could consider as they were developing strategies to re-enter export markets post-COVID-19.



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### TOTRIL

With a sudden surge in demand for onions to stock Australian pantries during COVID-19 lockdown, onion growers were thankful to have reliable supplies of their key broadleaf herbicide Totril once again back in their sheds.

Having Totril now manufactured in Australia has proved to be a great advantage, with COVID-19 causing huge disruptions in global supplies of goods across all industries – a stark reminder of the need for Australia to have manufacturing ability in key sectors including food production.

Bayer's announcement early in 2018 that it would divest Totril from its global product portfolio was described by Onions Australia CEO Lechelle Earl as 'a looming disaster, the biggest issue to hit the Australian onion industry in recent years, causing great concern amongst growers'.

Totril has been controlling broadleaf weeds in young Australian onion crops for many years.

Northern Victoria grower and Onions Australia chairman Peter Shadbolt, Scotties Point Farms, said the sudden loss of Totril had caught most people by surprise just ahead of the planting season.

"We have always used Totril, buying it at the beginning of the year in readiness for the season, so were caught unprepared."

Twelve months later in the 2019
Onions Australia magazine,
grower representatives continued
to express deep concern about
supplies of Totril or a suitable
replacement. Again, Ms Earl
described the sudden loss of Totril
as 'one of the most difficult and

time-consuming issues we have had to confront for some time'.

Totril became increasingly hard to source through the 2018 and 2019 growing seasons, and the industry scrambled for short-term emergency solutions until an effective alternative herbicide was found. Lechelle Earle described growers 'competing for remaining supplies of Totril, then being forced to look to more expensive and less-effective alternatives'.

Behind the scenes, Australian specialty nutrient and agricultural chemical supplier Barmac successfully negotiated with Bayer to buy the Totril brand and formulation. Having access to the modern Accensis manufacturing facilities at Lara in Victoria enabled Barmac to return Totril to the Australian market by October 2019.

Late in 2019, Peter Shadbolt expressed huge relief at the relatively quick reinstatement of supplies of Totril to Australian growers, 'saving onion growers from a lot of pain and worry'.

Ms Earl said Australian onion growers' ability to respond to the COVID-19 supply challenge early this year had been made easier by having access to Totril, with the industry previously facing up to 30 per cent crop losses without it.

"So reinstatement of its supply by Barmac was a huge relief and boost for Onions Australia and our growers. Barmac really kicked a winning goal with Totril."

She said the ease of dealing with Barmac, an Australian company able to have products manufactured here, had enabled the rapid return of this important product to the local onion industry.

This year, with onion-crop planting underway from April 2020, growers are once again confident of safely protecting their young onion crops from competing weeds.

Barmac business manager Chris Ramsey said sales of Totril since its reinstatement in October 2019 had been very strong in all oniongrowing areas, indicating its importance to Australian growers.

"The brand has real equity in the market."

Mr Ramsey said the temporary loss of Totril is a symptom of a larger problem for horticulture.

"While collectively an important major industry in Australia, horticulture is comprised of many different crops grown on small areas, each with very different requirements.

"Supply of unique, specialty products for specific crops is a long-term, expensive exercise for companies to develop, register and supply. Totril is a crucial product for onion growers, but too small a market for larger companies. Its potential loss to the onion industry highlighted the vulnerability of horticulture generally.

"Barmac sees itself playing an important strategic role in Australia, with more than 70 years supplying specialty fertiliser and crop-protection products for smaller, niche areas of agriculture, horticulture, turf and pest control. We are continually on the lookout in Australia and overseas for key products to service these specialty markets. Picking up the trusted Totril brand is a good example of what the company aims to do.

Totril 10L now being manufactured in Australia





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### THE END OF AN ERA IS NIGH

Dr Ken Jackson

#### Early onion production was once a feature of the onion industry in Queensland.

Varieties such as Early Lockyer White and Brown, Golden Brown and Gladalan White and Brown were the mainstream varieties grown in the Lockyer Valley from the middle to the late 20th century. During this period onions were widely grown on the numerous small farms in the Lockyer and Fassifern Valleys in South East Queensland, Onions from these districts were the first to appear on the East Coast markets. The early Lockyer varieties were planted in February and harvested in August. The Golden Brown variety and Gladalan varieties were planted a little later and harvested from September to October.

Seed of these open pollinated varieties was produced by a

number of dedicated seed growers in the district all of whom took particular pride in their selections. These seed growers would scout commercial crops of their particular selection to reselect bulbs for the next generation of their seed. Particular care would be taken to avoid any possible white rot contamination of the selected bulbs. The selected bulb would be stored, tops in tact to the following May when the bulbs would be planted to produce the next seed crop. If planted before this time the bulbs segregate into a number of small bulbs - a method sometimes used to produce really early bulbs for eating purposes.

Strains of these early season varieties were known by the surnames of the seed growers. Names such as Brooking, Neuendorf, Else, Schulz, Reisenleiter, Litzow, Allen, Reck, Weir, and Bichel were well known for their seed

production. Brothers Jack and Tom Else are possibly the last remaining growers of these early varieties and Tom has informed me that he has likely to have planted his last bulbs for seed this year. During my time at Gatton Research Station in the 1980s and 90s we maintained lines of all these varieties to use as controls in our extensive variety testing program. The above seed growers would enter their selections in these trials along with commercial seed companies who had imported early season varieties.

With the advent of hybrids and the increasing incidence of white rot in the Lockyer Valley following severe flooding in the district during the 1974 floods, demand for these early season varieties no longer exists. The new hybrids are planted much later in the season in the May-June time slot. This enables bulbing to be delayed beyond July when cold



and wet conditions are ideal for the development of white rot. Bulbing in the early season open pollinated varieties would often occur during this period when white rot was most virulent. The shorter shelf life of the early open pollinated varieties compared to that of the later harvested hybrids was also a factor in the demise of these varieties as super markets preferred varieties with the longer shelf life.

Today the small farms in the Lockyer are disappearing as they become part of larger farming companies. Some of the few remaining onion growers still maintain seed of strains they have developed for their own use, but this is rare. Sadly varieties such as Golden Brown which is recognised as one of the best eating salad onions is likely to disappear along with the skills of the dedicated onion seed growers of the past.

Top right: Tom Else in what is likely to be the last ELW onion seed crop in the Lockyer Valley.

Right: A seed crop of Early Lockyer varieties on Reg Neuendorf's property at Plainlands in the Lockyer Valley.

Bottom right: Dr Ken Jackson and PhD student Jocelyn Eskdale inspecting the benefit of mycorrhizal fungi on onion production in the Lockyer Valley in the late 1980s.

Below: Maturing Early Lockyer White Bulbs.















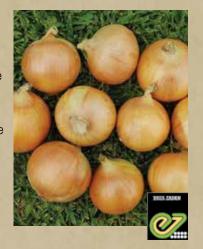
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#### **GOBLIN** Hybrid Brown Onion

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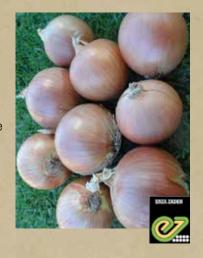
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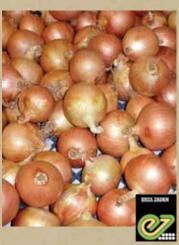


#### **PYTHON** Hybrid Brown Onion

Uniform globe, medium to large size

Thin necks

Very good storage for an onion in this timeslot.



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#### **OLIVINE** Hybrid Brown Onion

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Good vigour with high yield potential Excellent storage

potential.



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#### **PLUTONUS** Hybrid Brown Onion

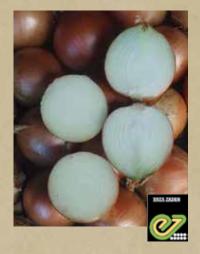
Excellent dark brown colour

Produces very firm, uniform high globe bulbs

Extremely good storage potential

Foliage is large and vigorous and strong against Mildew

Should be trialled in the late part of the PLK timeslot.



#### **SAMANTHA** Hybrid Brown Onion

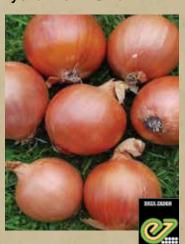
Uniform medium to large (70-100mm+)

Attractive dark golden brown skins

Excellent bulb firmness

Medium to long term storage

Sow mid September – early October for February – March harvest.



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# SEARCH FOR A NEW OPTION FOR NEMATODE CONTROL

#### WHAT DAMAGE DO THEY CAUSE?

Nematodes feed on onion roots. with resulting damage visible as fewer or short root branches, discolouration and galling in the case of root knot nematode. Above ground symptoms observed in crops include patchy establishment, premature wilting and reduced vigour, translating into yield reductions. The root damage can also result in increased susceptibility to root diseases such as Fusarium sp.

Trade distribution is primarily responsible for the spread of nematodes, on agricultural equipment and harvested produce. When nematodes are first introduced to a new paddock, crop damage is initially small, with infection occurring in isolated patches, however these patches become larger each year a host crop is grown on the infested site. Host plants vary between nematode species and include onions, carrots, potatoes, tomatoes, eggplants, lucerne, cabbages, wheat, maize and solanaceous weeds. Left uncontrolled, crop damage and yield losses become progressively worse.

#### THE IDEAL ENVIRONMENT FOR **NEMATODES**

Nematodes favour sandy soils, rarely causing damage in soils with more than 15% clay, with the exception of clay soils that aggregate readily, allowing the nematodes to move through the soil structure. The activity of different nematode species is somewhat temperature dependent, resulting in different species dominating the nematode population in different climatic regions.

Most nematode species tend to reproduce slowly over winter and are less likely to cause significant damage in winter crops. Whilst in dry soil they become metabolically inactive and do not move. Irrigated summer crops provide the ideal environment for most nematode species.

#### SCREENING OPTIONS FOR CONTROL

Since the removal of APVMA approval for the use of Nemacur 400 EC in onions, apart from soil fumigation, the industry has been left without a targeted product for control of nematodes. A twoyear project aimed at finding an alternative commenced in the 2018-2019 season with two screening trials conducted in South Australia.

When screening nematicides for nematode control in onions, there are a number of aspects to consider. Apart from the obvious questions; does it work? Is it safe to be used in onions? There was another major aspect to be considered. Many nematicide products require mechanical incorporation to work the product into the root zone following

application. However, this is not ideal in the sandy onion growing regions of South Australia and Western Australia, where the use of cover crops planted prior to sowing the onion crop is common. Given these summer irrigated crops are the ideal environment for nematode activity, out of these screening trials a promising product that could be incorporated using irrigation was chosen.

Syngenta's Tervigo 020 SC (240 a/L abamectin) is a specialised nematicide, and because it can be incorporated via irrigation it can be applied immediately prior to sowing, even in the presence of a cover crop, or during early crop establishment. These application timings allow for maximum protection of the crop for the longest possible period.

#### 2019-2020 SEASON RESULTS

Two trials were conducted during the 2019-2020 season to determine application rates and schedules for submission of a minor use permit application. Tervigo was applied at three rates as broadcast sprays on one, two or three application schedules. Single application treatments were post sowing and pre-emergence (PSPE), double applications at PSPE and two leaf stage, and triple applications at PSPE, two and four leaf crop stage. Tervigo treatments were compared with an untreated control and a single application of Vydate C





Root damage caused by root lesion nematodes



Pivot irrigation incorporating treatment applications in a South Australian onion crop grown with a barley cover crop.

(240 g/L oxamyl) or Nemacur (400 g/L fenamiphos) applied PSPE. All applications were incorporated by irrigation.

In Western Australia, root knot nematodes were present at the trial site prior to sowing. All nematicide treatments significantly reduced both the incidence and severity of root galling when compared to the untreated control. Increasing the total amount of Tervigo applied enhanced performance, as did splitting the applications between two or more application timings (Figure 1). All Tervigo treatments applying a total amount of 240 g ai/ha or above were equivalent to each other and to Vydate. The untreated control yielded 109.3 tonnes/ha with 99.3% marketable. All nematicide treatments significantly increased total and marketable yield, compared to the untreated control by up to 5% (Table 1).

In the South Australian trial, root lesion nematodes were present at moderate levels prior to sowing. Root damage varied across the trial site, reflecting the patchy nature of nematodes within a crop and as a result there were no significant differences in onion yield between Tervigo treatments and the untreated control, suggesting nematode levels at the site were below threshold level. However. results were still promising with midseason crop vigour significantly improved for double and triple applications of Tervigo compared to the untreated control. And all double and triple application Tervigo treatments had equivalent crop vigour to Nemacur.



Trial site at PSPE application in South Australia.

The final aspect in applying for a minor use permit is assessing chemical residues in the harvested crop. During the 2019-2020 season six residue trials were conducted; two in South Australia, two in Tasmania, one in Western Australia and one in Queensland. These trials included the proposed application rate as well as a 2x rate and they were applied on the triple application schedule. No Tervigo residues were detected in any of the bulbs that were sampled at commercial harvest. The final outcome of the minor used permit application is expected by late spring.

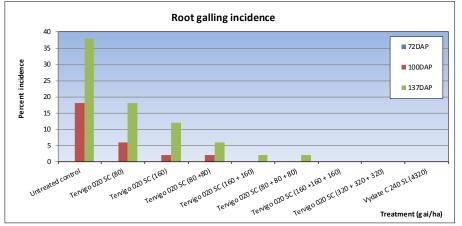


Onion plants sampled for fresh weight and root assessment at early bulbing. Root damage incidence for this untreated control plot was 20%, with no root damage observed for the Tervigo and Nemacur treatment plots.

Table 1: Onion yield at harvest for the Western Australian trial. Double and triple applications of Tervigo increased yield by up to 5%.

No.	Treatment	Rate (g ai/ha)	Timing	Yield (t/ha)	
1	Untreated control	-	_	109.3	d
2	Tervigo	80	PSPE	112.4	С
3	Tervigo	160	PESE	112.5	bc
4	Tervigo	80	PSPE, 2-leaf	113.7	ab
5	Tervigo	160	PSPE, 2-leaf	114.0	а
6	Tervigo	80	PSPE, 2 & 4 leaf	114.4	а
7	Tervigo	160	PSPE, 2 & 4 leaf	114.0	а
8	Tervigo	320	PSPE, 2 & 4 leaf	114.1	а
9	Nemacur	3,000	PSPE	114.4	а
			<b>P</b> -value	0.0001	
			LSD ( $P \le 0.05$ )	1.1508	

Figure 1: Root galling incidence in brown onions at the Western Australian site where root knot nematodes were present.



# LATEST SARP REPORT AVAILABLE TO GROWERS

To strengthen the biosecurity of Australia's onion industry, an integrated effort from growers and industry stakeholders is required to identify where pest, disease and weed management processes can be improved.

The levy funded 'Strategic Agrichemical Review Process (SARP) - Updates' (MT19008) project provides a series of updates, mapping out priorities and gaps to be filled within the horticulture industry.

The August 2020 SARP, which is the most recent report, presents a comprehensive snapshot of the potential threat diseases, insects and weeds pose to productivity and sustainability of the onion industry.

As an industry with minimal access to legal crop pesticides, this SARP report will help direct decisionmaking around effective chemical controls, which helps legitimise efforts in chemical registration or applications for minor use permits with the Australian Pesticides and Veterinary Medicines Authority (APVMA).

The review process involves desktop studies and liaison with industry stakeholders to evaluate levels of risk, registered pesticides available and their influence on Integrated Pest Management (IPM), resistance, efficacy, trade, human safety and environmental impact.

#### **DISEASES. PEST AND WEEDS OF ONIONS**

Crop protection is top-of-mind for onion growers, and avoiding resistance development when managing diseases, pests and weeds is paramount.

Integrated management strategies around diseases, pests and weeds should be adopted, incorporating diverse chemical and non-chemical strategies to maximise efficacy and vary management actions.

Key takeaways from the most recent August 2020 SARP are as follows:

#### Diseases

- · Downy Mildew is rated the highest priority disease. It is favoured by cool, humid conditions and the spores can survive in plant debris and soil.
- · Managing irrigation to reduce the duration of leaf wetness and use of crop rotations are important management practices.
- Other high priority diseases are Pink Root, Botrytis Neck and Bulb Rot, White Rot and Basal Rot.
- · All of these are soil-borne and can directly impact the bulb, either in the field or post-harvest.

#### **Pests**

- · Onions Thrips and Cutworms are high priority pests in onions.
- Onion Thrips are the most widespread of these pests, regularly requiring control in all regions of Australia.
- · When Thrips feed they damage leaves, which can cause stress and reduced plant growth. Infestation will cause the largest impacts on yield, with poor health of the plant tops leading to a reduced bulb growth period.
- · Onion Thrips may also breed in bulbs that have been harvested, causing problems with marketability.

#### Weeds

- · Weeds rated high priority are Wireweed, Fumitories, Fat-Hen, Wild Radish, Annual Ryegrass and Self-Sown Potato.
- · Multiple herbicide applications are necessary throughout the crop to keep it weed-free and to prevent weed competition from impacting production.

#### AN EFFECTIVE WEED CONTROL PROGRAM FOR ONIONS SHOULD **INCLUDE:**

- Starting with a weed-free field at sowing time
- · Targeting specific problem weeds with the most effective herbicides
- · Using a combination of preemergence and knockdown herbicides
- · Rotatina different herbicide groups to avoid the development of resistance
- Using non-herbicide weed control such as cultivation before planting, to reduce the reliance on herbicides
- · Keeping fallows weed-free to prevent build-up of weed seed banks

#### MINOR USE PERMITS

Applications for minor use permits can offer producers some flexibility with chemical use, within the usage limitations.

The Hort Innovation Onion Fund supports applications for new and renewed minor use permits and the SARP report provides guidelines around access to minor use permits.

Find a list of current minor use permits and find more information at: https://www.horticulture.com.au/growers/help-your-business-grow/ research-reports-publications-fact-sheets-and-more/minor-usepermits-for-the-onion-industry

For more about the SARP and to access the full report, visit: https:// www.horticulture.com.au/growers/help-your-business-grow/ research-reports-publications-fact-sheets-and-more/mt19008

The 'Strategic Agrichemical Review Process (SARP) - Updates' (MT19008) project is a multi-industry strategic levy investment in the Hort Innovation Almond, Avocado, Banana, Blueberry, Lychee, Macadamia, Olive, Onion, Papaya, Passionfruit, Raspberry and Blackberry, Strawberry and Summerfruit Funds.

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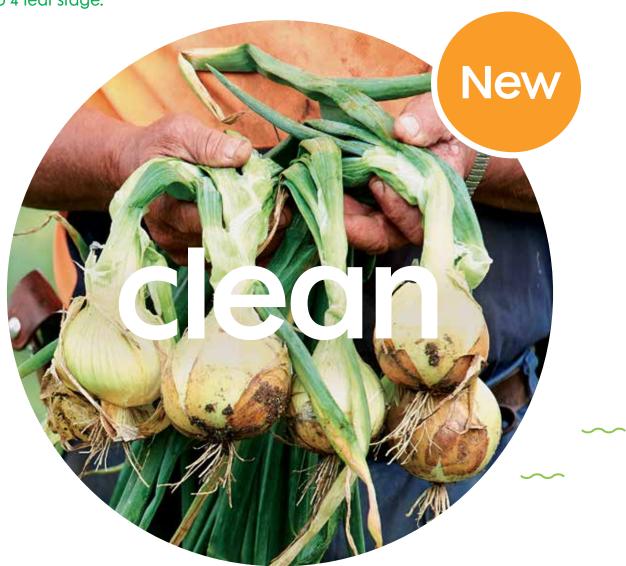
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# A STUDY OF THE AUSTRALIAN FOODSERVICE MARKET: HOW AUSTRALIANS HAVE THEIR ONIONS

#### INTRODUCTION

A market research study has provided key insights around the consumption of onions within the foodservice industry.

Commencing in 2019, the project The Australian Foodservice Market for Avocados, Mushrooms & Onions (MT18002) conducted by Food Industry Foresight, aimed to determine total market size for onions within commercial and institutional foodservice channels.

The study analysed volume, value and product type to help provide detailed insights, key trends and opportunities into the foodservice market for onions.

#### THE AUSTRALIAN FOODSERVICE MARKET

The Australian foodservice market is the fastest changing food market, fluctuating in market size.

Australians are inclined to eat out, with more than eight billion meals served in the Australian foodservice market every year. At the end of 2018, 77% of all Australians aged 14 years and older ate out at least once per month.

Onions are seen as a very versatile ingredient, used across all three main meals in most foodservice channels. They are used widely across many cuisines, giving them an advantage in the Australian foodservice market due to the diversity of cuisines on offer in Australia.

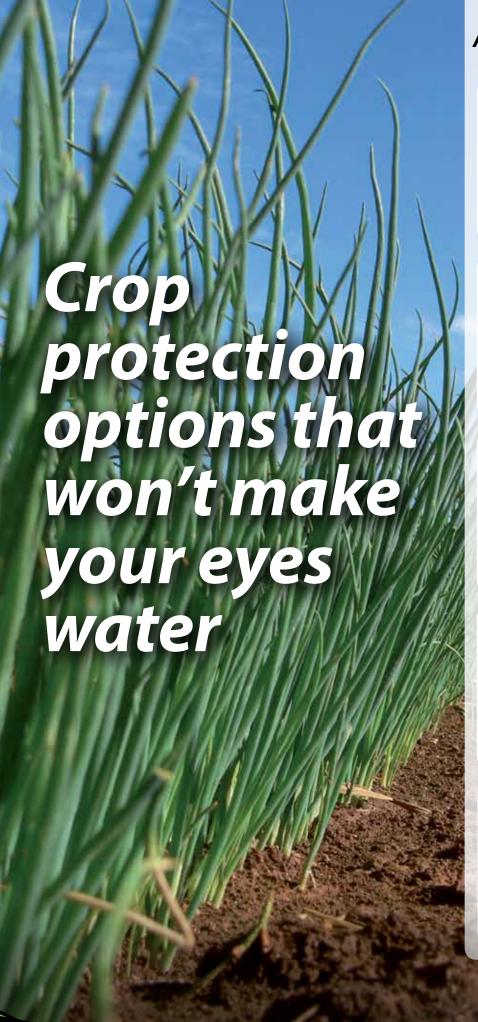
#### CONCLUSION

Overall, onions are prominent in the Australian foodservice market, proving their versatility across foodservice channels, included in menus across all three main meal segments - breakfast, lunch and dinner.

While heavily included in lunch and dinner menus, onions are increasing in popularity as the breakfast market quickly grows, and are included in a range of foodservice industry breakfast menus both commercially and institutionally.

They're considered an important staple ingredient and are a competitive product due to Australia's diverse range of cuisines on offer





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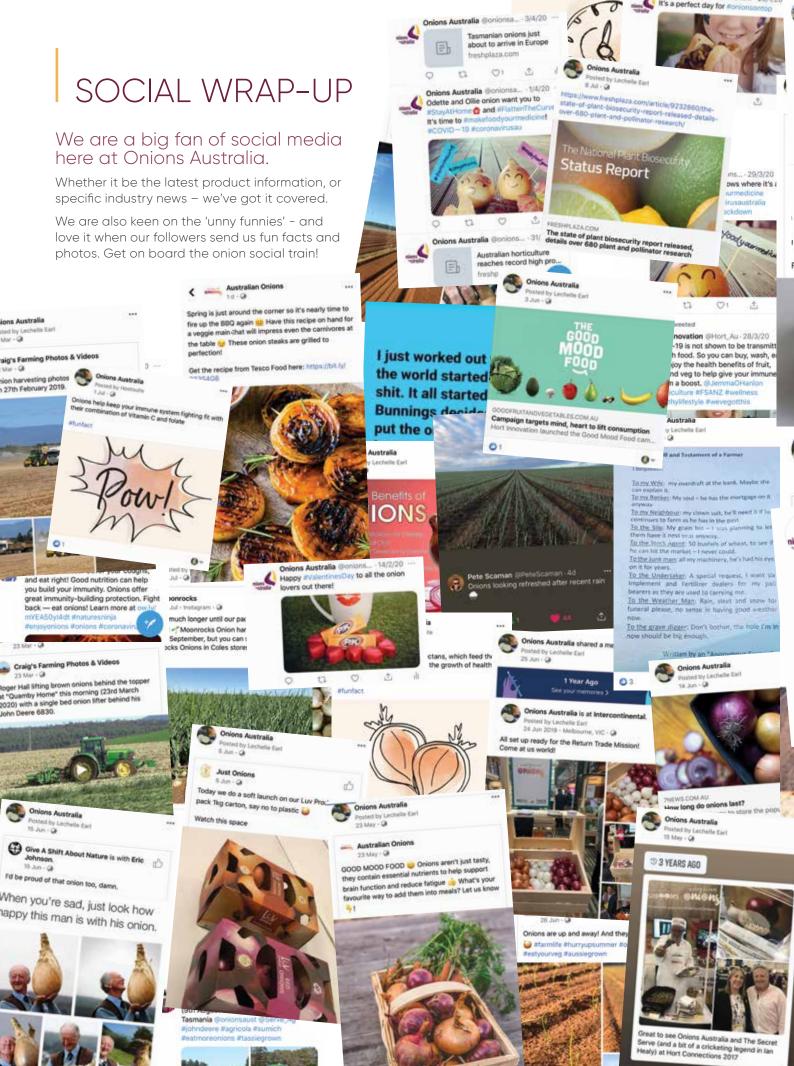
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# STATE ROUND UP 2019/20 SEASON

#### **NEW SOUTH WALES**

Frank De Marco

Our last harvest season began in November 2019, ending in March 2020. This was a successful season which saw us harvest 8,200 tonnes of brown, red and white onions with 85% of the crop ranging from medium to large in size.

The quality and skin was consistent across all varieties last harvest, and we expect to experience similar results this coming season - gearing up for another bumper crop.

This year's growing season in New South Wales has progressed well so far, with sowing taking place in May.

The beginning of the season proved slightly challenging due to dry conditions, receiving little to no rain. The rain we had in spring was very timely, helping to boost production. And the outlook for the second half of the season is positive, looking to be significantly wetter across NSW.

A large area of onions has now been planted, with a forward estimate of around 8,000 to 10,000 tonnes to be lifted this coming season.

#### WESTERN AUSTRALIA

Pennie Patane

Planting for the next season in Western Australia is now well underway.

The pressures of COVID-19 have had a significant impact on the region. Limited access to export markets, has resulted in a significant amount of stock still on hand.

#### **SOUTH AUSTRALIA**

Darren Rathjen

Hectares planted in SA again have been in line with previous seasons, with the current 20/21 season tracking the same.

Crop establishment was good with mild weather and not as many strong winds as some springs in the past.

Early Plantings came in with excellent tonnage and quality. But a pattern of extreme heat events through to late November, December and early January affected some of the mid season varietys tonnage.

Late storage crops yield strong tonnages but there were some reports of Fusarium Basal Rot showing up due to the extreme heat.

The market started off very solid with demand going crazy when the COVID-19 panic buying started. At the moment the market has come back to an average return with little demand for large brown onions due to the COVID-19 restrictions.

The current seasons plantings are starting to go in with a return to a wetter season than the past two seasons.

#### **NORTHERN VICTORIA**

Pete Shadbolt

2019/20 was probabaly one of our best seasons for a long time with good quality onions and above average prices for our very short season of about 10 weeks.

This year sees very similar areas planted as last year and we wait in anticipation as to what the market holds.

#### SOUTHERN VICTORIA

Frank Powell

Southern Victoria has been busy sowing. At this stage, we have approximately 1,500 tonnes of onions remaining and a packing schedule on the horizon which is expected to run supply right through until Christmas.

Due to a wet harvest, shooting and storage have been affected but we're hoping the large crop plants will help compensate this.



# STATE ROUND UP 2019/20 SEASON

#### **TASMANIA**

Tim Groom

After an extraordinarily strong export season in 2019, Tasmanian growers and packers have been brought back to earth with a thud in 2020. The weather in late October and November 2019 was cold and very windy. Whilst there was some bolting in a few crops the main effect was a delay in maturity by up to two weeks. March and April were well above average in rainfall leading to a harvest that did not finish until well into May. Early on quality was good but the late harvested crop was stained.

Export was slower to start up than in 2019 due to the higher stocks of northern hemisphere onions, particularly in Europe. The COVID-19 pandemic then hit the world causing a spike in local demand but some disruptions to shipping and postal services for exporters. Since the initial shock of the pandemic, export demand has been subdued, especially in Asian countries where the tourism economy has been hard hit.

Like the rest of the country, we head towards 2021 with a higher than normal degree of uncertainty on what the medium-term effects of the pandemic will be on the affordability of our onions in domestic and export markets, impacts to freight services, and seasonal labour availability.

#### **QUEENSLAND**

Michael Sippel

The 2020 season is well underway with all crops now in the ground and some of the earliest whites and browns now being harvested. Seedings began back in late February and have just completed in the Darling Downs region in early Julv.

The winter period has been very kind thus far. We did receive some rainfall in February/March, putting much needed soil moisture in the profile. It wasn't enough to break this ongoing drought but at least it gave some optimism that we could have a better growing season than 2019.

Whilst 2019 was a very dry growing season, quality in October through to January was very good. Yields were obviously down due to factors such as pink root and low water availability, but demand of the final product was strong.

Growers had very little issues getting their onions hand harvested and did not have to store very long before they were able to bag the onions and sell to the market.

2020 has seen a return of most of the growers with plantings similar to that of 2019. Whilst the area planted of browns, reds and white onions is similar, growers have had to go further afield to chase pockets of land with water. We have seen an increase in area planted late February/early March. These onions will be harvested from late August. As we have been receiving regular light rainfall events, it is expected yields will be high in these crops.

For the most part, the 2020 season has been kind with all crops looking very healthy. Plant establishment is high with all growers commenting that their crops are looking very good. The major issue we have faced this season has been the unavailability of Tribunal herbicide. We are thankful we have had access to loxynil this season. Some of the harder to control weeds we have relied on the addition of Tribunal in the past.

We are vet to see how COVID-19 and restricted travel movements of itinerant workers will affect our onion harvest at the back end of the season. Growers are currently trying to shore up this resource as we speak.



### BUSINESS DIRECTORY

The below listed members are paying members and have opted on their membership form to be listed in our OA magazine. If any of the above member details have changed and/or are incorrect, please advise OA. If you are a paying member and would like to be included in above, please advise OA.

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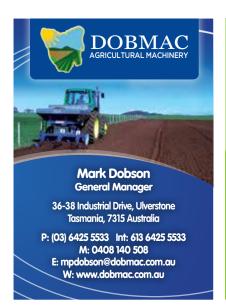
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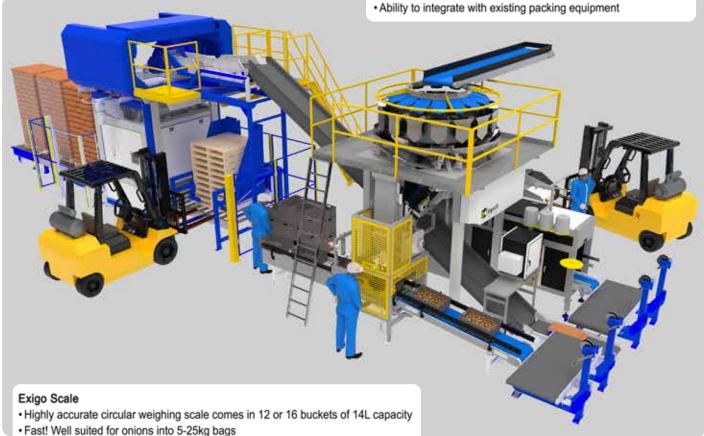
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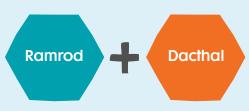




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