



A message from our Chair

A warm welcome to the November edition of Growing Undercover.

This is my first report for Growing Undercover and it is humbling to be elected as your new Chair. Our team are currently planning an exciting program for 2022 including our biannual conference in Coffs Harbour which is taking shape nicely.

It has been informative talking to our members and other Peak Industry Bodies about the challenges in our industry and how the PCA can serve our members more effectively. It will be critical for the PCA to adapt to the many challenges in our industry, particularly as we emerge from the pandemic.

Welcome Bahram Fayaz to the PCA Board

A warm welcome and congratulations to Bahram Fayaz on his election as the newly elected Director to the PCA Board.

I would again like to acknowledge the enormous contribution Nicky Mann (past Chair) has made to our organisation over a long period. Nicky has and will continue to be an active supporter and contributor to our industry.

Storm Damage Across the Country

It has been a challenging period for many of our growers in South Australia, Victoria, and the mid north coast of NSW as recovery from a series of storm events continues. The PCA has sent out a survey to determine the extent of the damage that can be communicated to various state government departments responsible for disaster recovery. This will be compiled and forwarded to these organisations and thank you to everyone who has filled in the survey to date.

Challenges ongoing across the sector

Visiting several growers and allied trade representatives on the mid North Coast of NSW and the Sydney Basin this month has highlighted many issues growers and the wider industry are facing in the areas of:



Matthew Plunkett • PCA Chair

- Sourcing and retaining labour (some growers paying \$90 per hour to retain staff)
- Suitable accommodation for seasonal workers
- Increasing pressure from regulatory authorities for growers to comply with environmental legislation
- Huge increase in input costs, particularly fertiliser costs (that have tripled in some cases)
- How to deal with waste – particularly plastic and old netting
- Delays in supply of steel, substrate, and other crop inputs because of COVID-19
- Lack of adequate insurance options for damaged structures.

The PCA Board are currently reviewing these challenges to see where we can assist the industry and other partners to address them. More specifically, what targeted advocacy programs we can focus on to the end of the current PCA strategy to June 2023.

Industry expansion continuing

The industry is rapidly expanding with reports of up to 250 new tunnels being installed on the mid North Coast in the last year alone. Significant expansion has also been reported in Virginia South Australia.

The Protected Cropping Mapping project that has commenced will derive important data on the growth of our industry once completed. This will assist the industry to advocate for more resources and allow the PCA to better serve our corporate members with accurate data on the size of our industry.

Growers innovating to save water and fertiliser

I visited several growers on the mid north coast of NSW who are considering moving to systems that give them greater control over their irrigation and nutrient management based on measuring total radiation sum as opposed to time-based scheduling.

A message from our Chair (cont.)

This includes a move to fully closed water recycling systems.

It is encouraging to visit a demonstration farm using a bioreactor to filter nutrient runoff before it leaves the farm which will feature as a farm tour site at the PCA conference. These approaches are an innovative way to address the management of nutrient loads from run to waste systems.

Oz Group Cooperative Tour

I also met with Oz Group Cooperative Chief Executive Officer James Kellaway and his team and toured their packing house in Coffs Harbour (pictured with Angela Malone). Oz Group will host two site visits for our farm tours as part of the PCA conference in March and we

thank them and all our sponsors, individuals, exhibitors, and allied trade who have registered and supported the event to date.

Protected Cropping in the Subtropics event

For all our Queensland members I encourage you all to attend the Regional Industry Engagement event on the 23rd of November at Gatton Research Facility. The PCA look forward to partnering with the Queensland Department of Agriculture and Fisheries and other partners on this and many other exciting events in the future.

As we head into the busy summer period, please stay safe and please reach out to our team if you require assistance.



Matthew Plunkett and Angela Malone (Oz Group) inspecting the grading of blueberries in the Coffs Harbour packing facility.

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or email us at: protectedcropping@asnevents.net.au

Food Ladder

By Lucy Payne



Food Ladder has a proven, place-based and multi-disciplinary approach to address food security in communities that creates economic uplift, social cohesion and behavioural change in eating practices. Food Ladder is rolling out its **purpose-built infrastructure** combined with the **education and learning platform** to remote and disadvantage communities across Australia. We provide hydroponic, climate-controlled greenhouses and specialised, ongoing training so they can grow fruit and vegetables, with the opportunity to establish your own **social enterprise**. We leave behind a sustainable and customised food system, which has health, educational and economic benefits. Food Ladder has a **proven solution** that can be implemented immediately which addresses the **food security** crisis, moving forward to resolve large long-standing issues of obesity and a lack of fruit and vegetable intake for Indigenous communities.



We established our not-for-profit in 2010. Local communities now own, manage and run **11 greenhouses** across Australia, India, Bhutan and Uganda. We completed **6** school greenhouse systems in Australia in 2021, with **14** scheduled for 2022. Food Ladder systems are **five times** more productive than traditional farming methods when operating at full capacity.

Thanks to the **free Food Ladder Online Platform**, we can measure the impact of each system through the increase in production of fruit and vegetables, the change in **behaviour** and **eating habits** in communities (indicating long term positive health benefits), **education** and **training** outcomes, **economic** benefit to the community and the reduced impact on the **environment** as a result of growing

food **locally** to each community. We have had **85 schools** join and through these schools **26,000 students** can now benefit from these resources.

Kintore St School video [here](#). Alekarenge School Video [here](#).



We are also running a school competition at the moment with details below!

Win the Food Ladder 'Growing Minds Pack' valued at over \$2,000

Entering is easy, all you have to do is:

- 1. Implement the Food Ladder 'Growing By Numbers Curriculum' in your class over term 1 in 2022**
- 2. Submit a poster or 2 min video showcasing your research project at the end of term 1**

This competition is a fantastic opportunity to experience the **exciting Growing by Numbers Curriculum** developed by Food Ladder. This curriculum has an overall **focus on learning** how to grow **healthy plants** and is designed to support students' develop:

- **Science inquiry skills**
- **Data analysis**

The curriculum is **hands-on** and encourages **learning by doing** through **project-oriented lessons** that are easy for teachers to implement.





Food Ladder (cont.)

Food Ladder is a not-for-profit organisation and our mission is to **empower** students to learn how to grow their own fresh and nutritious food.

The winning teams will be awarded a number of **consultations** or a **visit** (depending on location) with our **expert horticulturalists** to discuss your current school garden or plans for a new one! Valued at over **\$2,000 the 'Growing Minds Pack' includes 12 months-worth of seeds including Indigenous bush food varieties** that will take your school garden to the next level!

Additionally, each entry will go into the draw to win a bespoke **online cooking lesson** with our culinary health manager so that students can transform the produce grown in the school garden into nutritious, easy to make meals.

Who can enter?

Open to all classes in the below age groups:

Years 5 & 6 (Junior division)

Years 7 & 8 (Middle division)

Years 9 & 10 (senior division)



Curriculum:

You are able to watch a short video about Growing by Numbers [here](#). This video provides an introduction to Growing by Numbers and how to use the Teachers Guide. The curriculum can be found on our **free Platform** which houses resources for teachers to **support learning outcomes**. Please login or establish an account [here](#).

A poster for the competition and brochure on the school systems can be found below.

If you could circulate this through your networks to any schools that may be interested in entering that would be greatly appreciated.

MEDIA

This short [animation](#) explains the problem and Food Ladder's solution. Among extensive coverage of our solution is the below article which appeared in The Australian on 30/6/21. Read it in full [here](#).

The Katherine site was profiled on [Channel 7 News](#), [ABC](#), [Katherine Times](#) and [Indigenous.gov.au](#), [Landline](#) among others.

For more information contact Lucy Payne – lucy@foodladder.org or on 0447741486



PCA Industry Survey

Member Storm Damage Report



Tony Bundock • PCA Deputy Chair

The recent storms around the 29th of October caused widespread damage across the states of South Australia, Victoria and New South Wales.

PCA are striving to see if there is any possibility of obtaining Government assistance to support growers who have had major infrastructure and crops destroyed during this period.

However, key to this project is establishing both the scale and potential financial cost to growers to rectify this damage.

With that in mind PCA are inviting affected growers to complete a short survey

Take the Survey

The survey is looking to pinpoint growers geographically and also to highlight the level of damage and gauge estimated repair costs.

Once we have the data we can then collate this and present a more detailed picture to government.

At this stage there is no certainty that funds will be available, but the PCA will be doing everything possible to try and secure support for members who are facing difficulties at this time.



Recent storm damage to structures in Virginia South Australia.



The PCA Board would like to extend our warmest welcome and good wishes to our new members.

Individual Member

Anita Hicks

Andrew Richards, AR Crop Management Trust

We look forward to many successful years together!

Protected Cropping Australia 2022 Conference

PACIFIC BAY RESORT,
COFFS HARBOUR, NSW

28 – 31 MARCH 2022

www.pcaconference.net.au



2021 'Woman of Weed' award



Shared by Emily Rigby • PCA Director

Emily Rigby has been recognised for her active leadership in the cannabis industry and community in the Australian Cannabis Awards, winning 2021 'Woman of Weed' award.

Emily has also recently joined the Board of the Australian Medicinal Cannabis Association (AMCA).

Emily has played an integral role in establishing the blooming Australian medical cannabis industry. Including establishing a licenced medical cannabis cultivation and research facility and releasing Australian grown cannabis medicine into the Australian and export markets.

Emily is a passionate advocate for medical cannabis – promoting education, patient access, research, and regulatory reform.

Emily is dedicated to removing the stigma surrounding the cannabis plant and facilitating the Australian medical cannabis industry.



PCA 2021 Webinar Survey

The PCA invites you to participate in the 2021 Webinar Survey.

The aim of this survey is to seek feedback on how the PCA webinars are meeting your needs as a valued member (for both financial and subscriber members).

This information will guide the ongoing development of webinars to meet your expectations in the future.

Survey participants can remain anonymous and we encourage you to complete this short 4 minute survey by 1st December 2021.

We value your feedback and thank you for your time completing this survey.

[Take the Survey](#)

Did you know PCA offers a range of Membership options?

Financial Individual Members are usually individual grower or smaller allied trade organisations. Corporate Memberships are usually for larger grower or allied trade organisations.

See our corporate members at <https://protectedcropping.net.au/our-partners/>

A Corporate Membership 'bundle' includes five Individual Memberships and up to 10 Subscriber Memberships. Subscribers are non-financial members who are encouraged to upgrade to financial membership status to access PCA's full range of benefits and opportunities.

Details of Membership options are available at: <https://protectedcropping.net.au/become-a-member/> or by contacting:

Michelle Harris - Spencer: +61 (0) 3 8560 4391 or at protectedcropping@asnevents.net.au

Getting started in soilless turmeric farming with coir

By The Galuku Team

How to start growing turmeric hydroponically

Grow turmeric above-ground and future proof your farm

Growing turmeric hydroponically has many benefits, including improved yield, reduced risk of disease and more productive crops that can mature faster. Whether you're moving a current turmeric crop out of the ground, or planning to farm turmeric for the first time, there are several important factors to consider before deciding if hydroponic soilless turmeric farming is right for you. Read on for our expert advice on growing turmeric

Getting started in soilless turmeric farming with coir (cont.)

hydroponically, what to consider to be successful and how to get started!



A hydroponic turmeric & ginger growing located in Queensland, Australia

The benefits of growing turmeric in coir substrate

Coir substrate, also known as 'cocopeat' is a growing media made from coconut fibre, the husk of coconuts. Coir is an ideal growing media for commercial hydroponic turmeric farming.

The benefits of soilless turmeric farming include

- Reduced risk of soil-borne disease
- Improved crop productivity and yield
- Increased quality of crop; including potency, flavour and aroma
- Cleaner crops reducing spoilage risk and post-harvest labour need
- Dramatically reduce chemical use overall
- More ability to harvest on market demand
- The cultivation of clean rhizomes "seed" or "mother" pieces

What to consider before starting to growing turmeric hydroponically

Coir substrate

A successful soilless turmeric crop starts with the right substrate. A well-balanced blend of coir substrate is advisable to allow turmeric rhizome expansion while still maintaining consistent water-



Galuku team member, Andrew, standing among hydroponic ginger and turmeric crops

holding capacity (WHC) and air-filled porosity (AFP) throughout the lifecycle of the crop. In collaboration with leading Australian farmers, Galuku has compiled over seven years of research and development to fine tune a proven blend and tailor a product solution for the successful cultivation of soilless turmeric and ginger crops.

Irrigation infrastructure

Suitable infrastructure for irrigation is required to ensure successful turmeric cultivation. We recommend an A & B stock tank system with pH adjustment, automated dosing and computerised controller support. This will allow precise control of the root-zone environment.

Specialised expertise and support

Having the right products is only part of successfully growing turmeric hydroponically in coir. With any new growing method or crop you need specialised support from experts who know how to help you succeed. Galuku partners with their growers, and is here to support and advise you on project design, layout, infrastructure, nutrition, and irrigation strategy to ensure your turmeric crop is the best it can be. Our patented systems and years of research and development position us as the perfect partner for you and your hydroponic turmeric crop.

Timing consideration

Implementing a commercial hydroponic turmeric growing system can be a long process. Depending on the scale and complexity of your project, availability of supply, and additional factors, it can take many months to organise everything ready for planting out. Scoping out your needs early is key to reaching your goals. [We can help!](#)

If you're serious about growing turmeric hydroponically, soilless turmeric farming in coir substrate is the best choice. Experience improved yields, cleaner disease-free crops, increased productivity and much more! Learn how to start for yourself by [downloading our free guide](#) to growing turmeric and ginger.



Hydroponic Turmeric growing in Coir

Get to know some of our new members!

Kevin Black, K & S Black Isis River Produce

Tell us about your farm and/or your role in the protected cropping industry.

Organic

What do you see as current and future challenges for the protected cropping industry?

Cost

Why is it important to be a member of the PCA, and why did you join?

Knowledge

Where do you see yourself in 10 years?

Hopefully alive

Tell us an experience or funny story about yourself.

Wanted to be a hippy working 3or 4 days a week I'm a fulltime organic grower working six and a half days a week and all i can do is grow my hair long and that's as good as it gets for me , moved to Bundaberg to be a farmer 36 years ago

Darren Clarke, The Yield Technology

Tell us about your farm and/or your role in the protected cropping industry.

Our Sensing+ microclimate solution combines sensors and analytics to provide information and predictions in easy-to-use apps that help large commercial growers, and their contract growers, make fast confident on-farm decisions like when to irrigate,

What do you see as current and future challenges for the protected cropping industry?

- Maximising the ROI on technology investment
- Increasing production while working with diminishing resources
- Increasing unpredictability of weather
- Unavailability of labour due to COVID travel restrictions and border closures

What do you enjoy most about working in the protected cropping industry?

I enjoy the challenge and supporting growers that are innovating

Why is it important to be a member of the PCA, and why did you join?

There is an enormous potential in the industry and would like to support PCA in leading the way. I can support this aspiration by being a member of PCA

Where do you see yourself in 10 years?

Leading a AgriTech company that is focused on high value horticulture

Tell us an experience or funny story about yourself.

I started my career as an Officer in the Royal Australian Navy

Benjamin Males, Medical Cannabis Australia

Tell us about your farm and/or your role in the protected cropping industry.

Co founder/Head of projects at medical Cannabis Australia

What do you see as current and future challenges for the protected cropping industry?

Energy costs

What do you enjoy most about working in the protected cropping industry?

Solving Problems

Why is it important to be a member of the PCA, and why did you join?

Knowledge Share is very important for any Industry to be strong and am very interested in learn from other members

Where do you see yourself in 10 years?

Playing on my own farm spending more time with family

Andrew Richards, AR Crop Management Trust

Tell us about your farm and/or your role in the protected cropping industry.

I currently advise Protected crop growers in Lockyer Valley in South East Queensland

What do you see as current and future challenges for the protected cropping industry?

Recognition in the marketplace

What do you enjoy most about working in the protected cropping industry?

The complete difference to field production

Why is it important to be a member of the PCA, and why did you join?

Grower perception of professional recognition

Where do you see yourself in 10 years?

Very close to retirement

Sam Spirli, E.E. Muir & Sons Pty Ltd

Tell us about your farm and/or your role in the protected cropping industry.

Run a small strawberry farm and also work for EE Muir & Sons

What do you see as current and future challenges for the protected cropping industry?

Cost of infrastructure going up

What do you enjoy most about working in the protected cropping industry?

The diversity of crops that can be grown

Why is it important to be a member of the PCA, and why did you join?

Stay in the loop and have connections with like minded individuals

Where do you see yourself in 10 years?

Hopefully still learning and moving forward

Craig Salmon, Advanced Nutrients

Tell us about your farm and/or your role in the protected cropping industry.

Supply water treatment and nutritional products

What do you see as current and future challenges for the protected cropping industry?

Sustainability

What do you enjoy most about working in the protected cropping industry?

Good people open to innovation

Why is it important to be a member of the PCA, and why did you join?

To learn more about the industry and to assist growers better

Where do you see yourself in 10 years?

Being a major supplier to PCA growers and helping them to be more sustainable

Tell us an experience or funny story about yourself.

Been in the agriculture /cropping business for 25yrs and still have a passion for it.

Tell us about your farm and/or your role in the protected cropping industry.

We are a certified organic Glasshouse operation

What do you see as current and future challenges for the protected cropping industry?

Sustainability in nutrition and media

What do you enjoy most about working in the protected cropping industry?

The diversity of operations and the high tech nature

Why is it important to be a member of the PCA, and why did you join?

it is important to be connected to other growers and industry problems

Where do you see yourself in 10 years?

Leading new technologies and sustainable development in the industry

Tell us an experience or funny story about yourself.

A modular growing tour in France showed me the differences in growing conditions even in protected cropping. Visiting a new operation in the UAE really showed me the amount of money pouring in the sector



The Queensland Government and Hort Innovation are pleased to invite you to the launch of the Gatton Smart Farm initiative. This national flagship program is bringing together Hort Innovation, the Department of Agriculture and Fisheries, industry and commercial partners to drive AgTech adoption across Australian horticulture by transforming the Gatton Research Facility into a world class 'Smart Farm'.

Location: Gatton Research Facility, Warrego Highway, Gatton, Queensland

Date: Wednesday 24 November

Time: 11am to 12.30pm

The Hon Mark Furner Queensland Minister for Agricultural Industry Development and Fisheries and Minister for Rural Communities will launch the project and capital development program together with representatives from Hort Innovation, AUSVEG, and local industry.

Lunch which will be served on-site following the formal proceedings.

RSVP to GattonSmartFarm@daf.qld.gov.au by Friday 19 November to confirm your attendance. Please provide details of any special dietary requirements.

[Add to calendar: Gatton Smart Farm launch](#)

New Webinar Available Now!

Missed out on our recent webinar?

The full recording of all our webinars are available online for financial members.
In our most recent webinar, Priti Krishna from Western Sydney University presented:
["Application of Biostimulants in Hydroponics"](#)

[Browse Past Webinars](#)



Matthew Plunkett with Julie Dart inspecting the bioreactor which will feature as part of the PCA Farm tour program in March 2022.

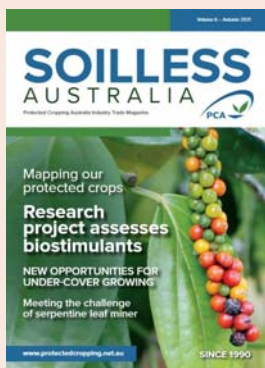


Julie Dart (North Coast Local Land Services), Karmjit Singh (Bucca), Matthew Plunkett & Paul Singh (Bucca) discussing Integrated Pest Management tactics in Raspberries.

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People love hearing about what their peers are up to - and we're always on the lookout for news about what's going on in the protected cropping industry. Our monthly e-newsletter, Growing Undercover, is a great place to catch up on these stories.

If you've got something you'd like to share, or there's an issue you'd like addressed, we're all ears.

Please give us a call on +61 (0) 3 8560 4391 or via email: protectedcropping@asnevents.net.au

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Knowledge grows



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