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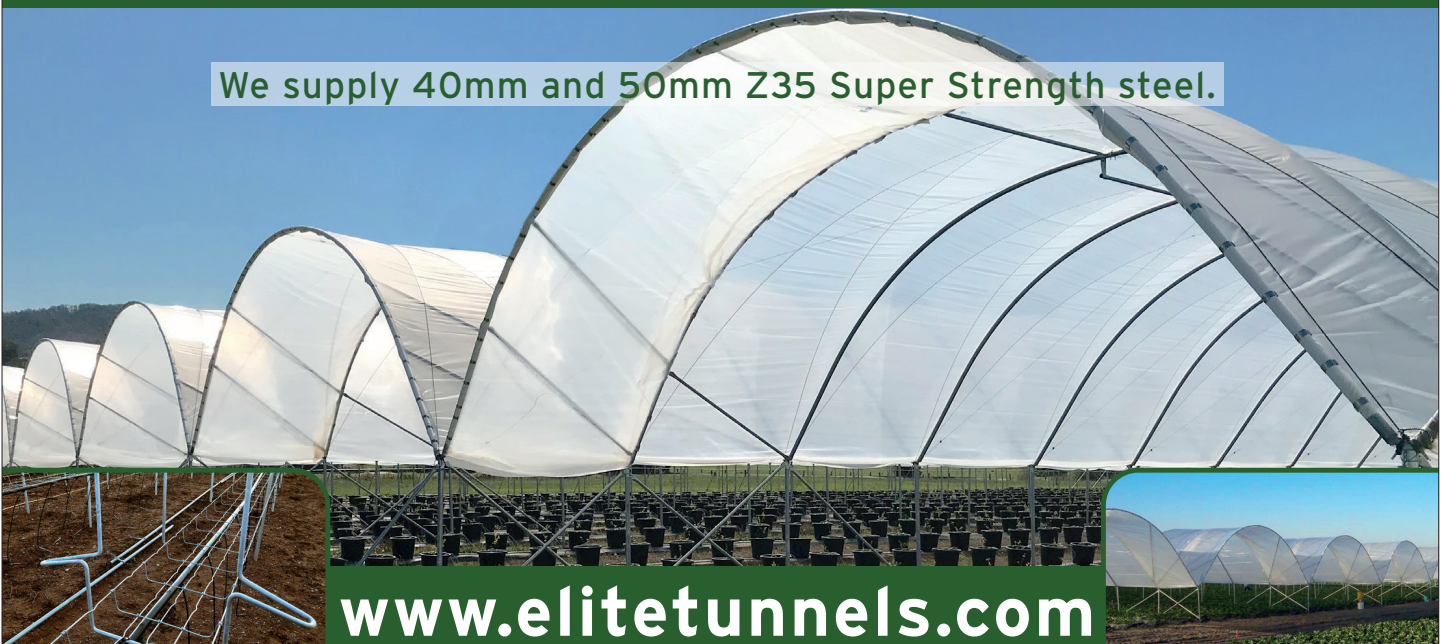
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The past few months has shown how quickly plans can be turned upside down as governments try to control the spread of COVID-19.

welcome

Despite the turmoil and with fingers firmly crossed, the PCA Board has continued to plan and schedule an exciting biennial PCA conference for later this year. However, the decision has now been made to postpone the conference until late March 2022. It is to be held in Coffs Harbour, New South Wales, a beautiful area and a centre for horticulture.

Our extended feature on the conference starts on page 23. Keep up to date via pcaconference.net.au.

Controlling runoff

One of the topics to be canvassed at the conference and on the Farm Tour, is the importance of regulating fertiliser runoff. As part of the NSW DPI Clean Coastal Catchments Project, Dr Sophie Parks is investigating nitrogen requirements for blueberries. In her report, which starts on page 15, she outlines how to get the nitrogen source right and encourages growers to adopt the "4Rs approach" to plant nutrition to improve nitrogen-use efficiency, while fully meeting the plant's nitrogen requirements. Those 4Rs are right source, right rate, right time and right place. Sophie is also speaking on this topic at the PCA conference while

a Farm Tour will visit a farm that's reducing its runoff.

World view

This issue also brings a story from a contributor in Israel who has documented how one seed company is breeding capsicums (sweet peppers) to meet the consumer demand for seedless fruit. Read how plant breeder Benny Nir set about to deliver a capsicum without seeds. What started as "a Friday afternoon project" is now a major breeding program. Gerry Kelman's story of Benny and the seedless mini pepper starts on page 18.

As well as travelling to Israel on the track of capsicums, we also take you to Seattle where AI team Koala is planning how to tackle the next stage of the global Autonomous Greenhouse Challenge.



I was intrigued about what Australia's koala had to do with AI.

A quick email to team leader Kenneth Tran revealed it was the cuteness of koalas that clinched the name.

"Koala team is a collaboration between Koidra and GLASE (a greenhouse lighting research consortium led by Cornell University)," Kenneth revealed. "We played with words for the team name that could reflect the partnership and came up with Koila, which turned into Koala because it's cute."

We'll see how the challenge plays out as the teams go through a Hackathon in November and finally produce their crops (lettuce not gum leaves) early next year (see page 8). Also catch up with Godfrey Dol's insights on the Autonomous Greenhouse Challenge at the PCA Conference (see page 23 for those details).

Jennifer Stackhouse, Editor

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Chair's REPORT

BY NICKY MANN

Well, spring has definitely sprung at Family Fresh Farms, on the Central Coast of New South Wales even though, as I write, it is still winter.

Our glasshouses are pumping as we capitalise on the clear blue skies of winter add heat, CO₂ and fertigation. It's pure magic. The plants are very happy and producing like crazy. It's always easier to heat than cool, so we are making the most of it.

The higher tech the facility, the more tools at the grower's disposal to create optimum growing conditions. At the farm we have been blessed with consistent work over what has been a very difficult time for many people due to continuous and lengthy lockdowns across the country. As part of the Greater Sydney Region, we have been in lockdown since June 26, 2021.

Victorians, who have had their fair share of lockdowns, were sorely missed at Hort Connections 2021 in Brisbane in early June. It was largest horticultural exhibition in Australia and the PCA Board (minus Tony Bundock, Marcus van Heijst and Neil Miles) were there in force. It was amazing to meet so many people face to face. There's something special about personal interactions, connections, learnings and the comradeship. It was great to see lots of familiar faces and lots of PCA members and corporate members attending and exhibiting over what was a very busy couple of days.

The PCA Board managed to have a very productive meeting with Belinda Adams and Tyson Cattle from AUSVEG and the National Farmers Federation Hort Council. All in all, Hort Connections was a real buzz.

Farewells

On a sad note, we have farewelled two incredible PCA personalities this winter: Tony Biggs and Dr Stephen Goodwin. Tony was a founder of AGHA while Stephen was a previous Board member of AGHA and a huge contributor to IPM in Australia. For more about these two great people, see pages 40-41. Our thoughts are with their family and close friends.

Finally this is my last Chair's report for *Soilless* as I have officially put my resignation into the Board to step aside on October 31. I have loved every minute of serving on the PCA Board and, from 2017, being

the Chair. It is time that our succession plan kicks into action with a new Chair and a new era. I believe in empowering and developing people, of fresh new ideas and ways of thinking being encouraged and celebrated and so I am practicing what I preach.

PCA is in a brilliant position with an experienced and hard-working Board, an excellent board structure and governance guidelines in place, strong committees pushing marketing and membership, education and training, finance and audit, and conferences. We have a solid strategic plan in place, clear goals for building strong alliances with other peak industry bodies, and we are working on strong relationships with Horticulture Innovation, Future Foods plus other government bodies.

We have just gone to market to find an Executive Officer using Rimfire Recruitment. I am confident that once this new placement is made alongside ASN Events holding our hand on all the administrative tasks, PCA will be in an excellent position to serve our members like never before.

Thank you

I would like to sincerely thank the following people for their help while I have been the Chair: Matt Plunkett (Deputy Chair), Tony Bundock (past Deputy Chair), Marcus van Heijst, Emily Rigby, Andrew Potter, Shane Steffan, Michelle Mak, Neil Miles, Nam Ly (previous Board member), Jonathan Eccles (previous Board member), Saskia Blanch, Jan Davis, Jo Archer, Jennifer Stackhouse, Kerrie Harris-Spencer, Alyson Botha, Michelle Harris-Spencer, Frumet Jedwab, Jordyn Trolove, Nitesh Patel and Tim Hancock. Lastly but no least, a big thank-you to my long-suffering husband, Wade Mann, and the team at Family Fresh Farms as I have juggled work and PCA over the past four years.

To all the PCA members, allied trade, corporate members and subscribers thank you for being part of our wonderful organisation, which is like a big family to me. This was the first organisation Wade and I joined when we arrived in Australia to grow roses under twin-skin, multi-span greenhouses and to start our brand new life in Australia with not much but a lot of optimism and hope. So this organisation is very dear to my heart and I have been absolutely privileged to lead and be a part of this peak industry body through some of the most drastic changes it has been through.

I wish the new Chair, Deputy Chair and PCA Board the very best going forward. I know the organisation is in safe hands.

Nicky Mann, PCA Chair

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Labour woes continue to dog growers

Agricultural and horticultural labour issues are front and centre of recent lobbying by the National Farmers' Federation (NFF) and AUSVEG. The NFF has vowed to fight to protect piecework rates and workers' rights to be paid according to effort claiming that as fruit and vegetable growers require workers for short intensive periods of picking and packing, piecework rate arrangements attract dedicated and ambitious workers and 'incentivise' productivity.

Under the Horticulture Award, piecework rates must be set to allow a worker to earn at least 15 per cent above the award wage claim the NFF.

"Rather than offering a set, hourly rate, piecework rates allow workers to earn at a rate that directly corresponds to how much they pick or pack in a given workday," explained Tony Mahar, CEO of the NFF.

Meeting labour demands

Meanwhile AUSVEG is lobbying to bring more workers into Australia to help meet the labour demand in agriculture and horticulture. The group is calling for an extra 24,000 workers to be brought to Australia from the Pacific Islands.

The call from AUSVEG, the peak industry body for the Australian vegetable and potato industries, comes as the industry continues to face severe labour shortages of up to 24,000 for the coming peak harvest seasons following modelling.

Phase 2 of the 'Seasonal horticulture labour demand and workforce study', commissioned by Hort Innovation, indicates that the peak casual labour supply gap could range from 11,000 to 24,000 workers in early 2022.

According to AUSVEG, state and federal government support in increasing the number of people from the Pacific Islands to come and work on Australian fruit and vegetable farms is hugely important to ensure the industry has the workforce it needs to harvest, pack and distribute fresh produce.

"Industry has already brought in more than 10,000 workers since the Seasonal Worker Programme restarted in July last year, and it is great to see the Prime Minister's recent commitment to bring in another 12,500 workers by March next year," said AUSVEG National Manager – Public Affairs, Tyson Cattle.

Quarantine capacity and costs continues to be a significant challenge for the industry, with some growers forced to pay more than \$3000 per worker to complete their quarantine before they have started work.

"AUSVEG has continued to work with the federal government and support initiatives such as in-country quarantine to help minimise both the health risks and the costs for growers, workers and the Australian public," said Tyson. "It has been disappointing that despite this opportunity, only South Australia has opted-in to have discussions around in-country quarantine options."

"As industry we continue to urge governments to look at ways to increase its quarantine capacity and to look at all options to support the vegetable and potato sectors that still require harvest labour for its upcoming harvest."



Tyson Cattle from AUSVEG is demanding government facilitate the arrival in Australia of Pacific Islands workers.

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Luca Travaglini
Planet Farms, Milan, Italy

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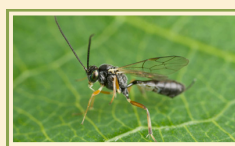
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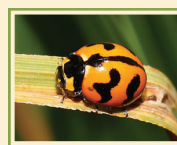
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Today, Breedx seedless sweet mini pepper varieties are sold under the Pepperito brand and focus on two snack segments. These are ‘1Bite’ with a length of up to 6cm and a ‘mini-Kapia’ type of a fruit with a length between 8-15cm. Additional snack segments are at an advanced breeding stage and will become commercial soon.

There are three varieties that can be reproduced by seeds, two for red mini Kapia, one for red 1Bite. The other varieties presently grown by vegetative propagation, are on the way to seeds. While red is the dominant colour, there are also yellow and orange varieties in the portfolio. As Lior Carmeli, Breedx CEO says: “Our aim is to have the complete colour range for commercial production in each segment over the next two to three years from seeds.”

Today, Breedx seedless peppers are commercially grown in Spain for European markets, in Mexico and Canada for North American markets and in both South Africa and Israel for local markets, with ongoing trials in other markets (although they are not yet in Australia).



About the author

Gerry Kelman was born in Scotland and graduated in agriculture from University of Glasgow. On graduation he went to live and work in Israel, which he has called home for 60 years. Today he is a regular contributor to international publications on fruit and vegetables and is Past-President of the Israel Association of Agricultural Journalists.

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Overview of installation progress and energy integration.



Aerial view of the Nelson site. The glasshouses cover 10ha that were heated by eight separate coal plants.

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Future directions

The overall modernisation is at the point required for future connection to zero carbon energy sources. Currently JS Ewers in conjunction with Enriva is designing and procuring a renewable biomass plant. This will eliminate all remaining fossil fuel based energy sources from the system and allow JS Ewers to boast a heating system that is completely carbon neutral.

However, this story doesn't end here. JS Ewers continues to develop and innovate as the use of technology is in the company's DNA. More and more growers in New Zealand and Australia are looking toward sustainable solutions for energy. Historically options such as gas are becoming less competitive because of increasing cost. In New Zealand specifically businesses are subject to a carbon tax, which raises the cost of non-renewable energy, such as coal, thereby driving renewable energy outcomes.

While historically both Australia and New Zealand have large dependencies on fossil fuels, many growers would like to make the step into a more sustainable direction. Of

course while sustainability is critical for the long term, business profitability is mandatory in the short term. When the parameters are such that sustainability and profitability align, then projects like these can become a reality.

For more information

This is an example of an energy conversion project run by Enriva that can help growers optimise energy solutions, from consultancy through to project realisation both in Australia as in New Zealand. For more technical information about energy projects such as this, contact Sohumi Gandhi who is the Director of Enriva, which is based in Sydney at sohumi@enriva.com.au or visit www.enriva.com.au

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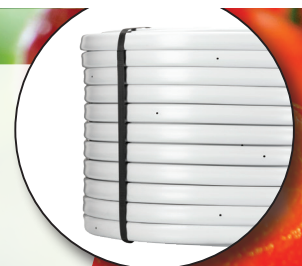
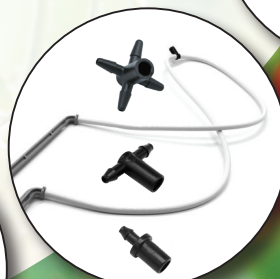
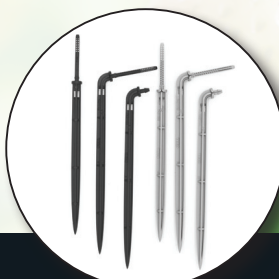
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MADEC is also an approved employer under The Seasonal Worker Programme (SWP) that provides employers in agriculture and horticulture access to reliable, returning workers from Pacific Island countries and Timor-Leste. As an approved employer of the SWP, MADEC can source, employ and manage people to work on your farm under the program. We comply with all the requirements of being an approved employer including providing all pastoral care.

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Farm tours

A conference highlight for many delegates is the farm tour. There will be two tours operating on Thursday, March 31, 2022. They will book out quickly so book a tour when you register.

The Berry Industry Farm Tour

This is a full day farm tour, departing at 8am from the Pacific Bay Resort and returning at 4pm, which will see delegates visiting berry operators within the Coffs Harbour region and also meeting with industry experts. Catering and transport is included in the ticket cost. As this is a full day farm tour, the organisers recommend flying out of Coffs Harbour on Friday, April 1. Cost is \$130 per person and includes transport, catering and PPE.

Oz Group Cooperative, Coffs Harbour
Tour of packing sheds.

Parvinder Lalli's farm, Corindi

View blackberries growing in a new Cravo retractable roof system with an update from Bede Miller, Cravo.

Costa Group farm, Corindi

Long-cane raspberries and blackberries. Maurizio Rocchetti will give a pollination update.

Aman Lehl's farm, Corindi Beach

Blueberry crops and transitioning to a closed water recycling system. Melinda Simpson, NSW DPI Clean Coastal Catchments, will give an update on the project.

The Greenhouse Vegetable/ Mixed Farm Tour

This is a half-day farm tour, departing at 7.30am from Pacific Bay Resort and returning at 2.30pm, delegates will visit greenhouse vegetable operators within the Coffs Harbour region. This tour will offer airport drop off on Thursday afternoon for those wishing to

depart early. The tour will conclude at Pacific Bay Resort. Cost is \$130 per person and includes transport, catering and PPE.

Raspberry Creek Farm, Bonville

Rhod and Annie Cook operate a hydroponic vegetable and herb farm.

Oz Group Cooperative, Coffs Harbour

Tour of the packing sheds.

Palwinder Singh's farm, Bucca

Greenhouse vegetables and raspberry production. The business is implementing a bioreactor system to reduce nutrient runoff. Shaun Morris, North Coast Local Land Services, will provide an update.



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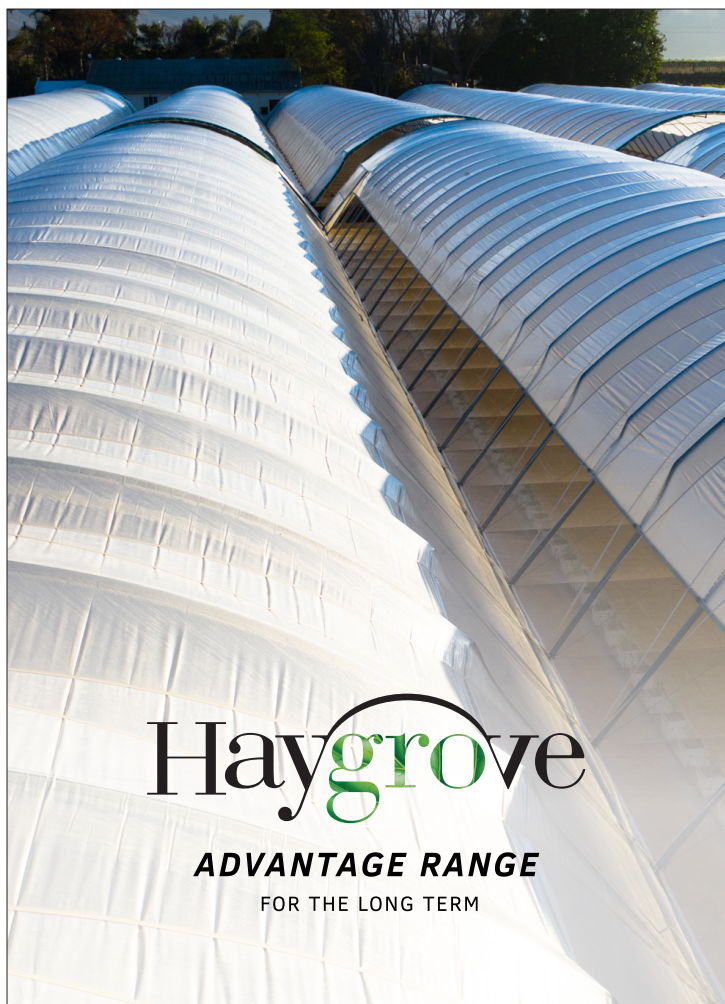
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Coffs Harbour is the location for the next PCA conference. Photo Adobe Stock Photos

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Are you a grower or levy payer? PCA has the ability to financially subsidise up to half the cost of a full registration for growers or levy payers attending the 2022 national conference at Coffs Harbour (March 28-31, 2022).

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For details of farm tours, which should be booked at registration, see page 26.

Book your conference stay

Discounted accommodation is available for delegates attending the PCA 2022 Conference. Our PCA conference organisers have secured the best available rates for a range of hotels in Coffs Harbour. The below-discounted rates are only available when booked through the PCA conference website (details below).

Options include Pacific Bay Resort, Opal Cove Resort and Observatory Apartments.

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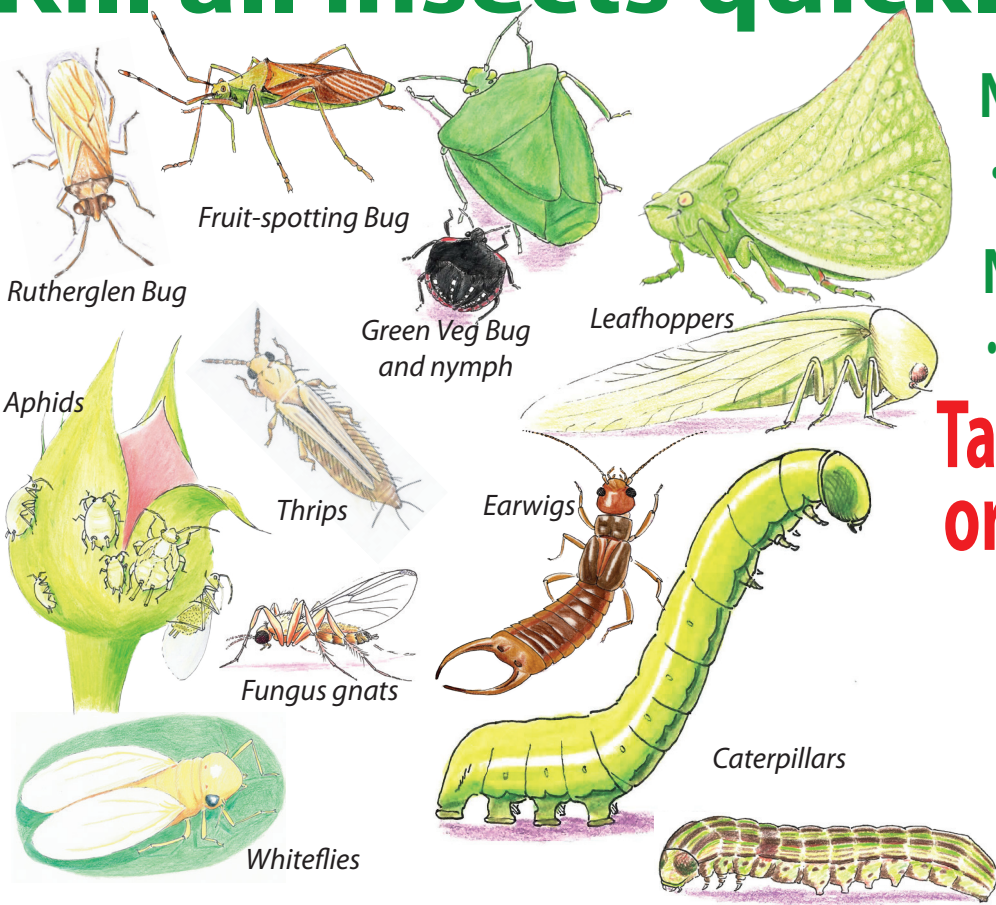
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Vale

Dr Stephen Goodwin

James Altmann remembers a friend and colleague, Dr Stephen Goodwin and pays tribute to his pivotal role in developing IPM in Australia. Stephen died on July 9.

Stephen had a long career as an entomologist with NSW Agriculture. We became more acquainted when his focus on research commenced targeting IPM (Integrated Pest Management) and biological control in close collaboration with his life and research partner Marilyn Steiner.

When projects were hard to come by, Stephen was instrumental in ensuring that continued research funds were focused towards pertinent industry pest control issues.

In conjunction with these projects he had a strong desire to ensure the results were incorporated into commercial growing practices particularly in the greenhouse industry. In Australia during the 1990s when biological control was in infant stages, Stephen saw a need to emulate recent IPM successes being recognised in Europe. He engaged the support of key international research and extension specialists to promote change in the greenhouse industries from complete chemical use for pest control to IPM programs incorporating beneficial insects and mites as the cornerstone.

My association and friendship with Stephen and Marilyn commenced during this period as he regularly encouraged (often firmly) our business (Biological Services) to continue their research and commercialise several

insect and mite products not previously utilised in Australia.

To assist us he helped promote these systems to the industry. Stephen helped to organise overseas research trips where we travelled together and he introduced us to colleagues in the biological control industry who are still important collaborators with us today.

The current growth in sustainable pest control practices in Australian horticulture has a direct link to the work of these two dedicated people.

Stephen had strong convictions, was forthright, had energy to achieve and used these attributes to make change. I have a lot of respect for his tenacity. He had courage to tackle difficult or sensitive topics, but would also listen to opinions of others and recognise their knowledge and abilities. It took a while to know Stephen properly. Over many years we formed a relationship that developed past work to include common interests in the natural environment, gardening, food, wine and a good laugh. In his retirement I know that he used these qualities to benefit local environmental issues and enjoyed his involvement with gardening clubs. I will miss him, but not forget his influence and friendship.

SA



Stephen Goodwin

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Last word

with Anouk Sijmonsma

Anouk Sijmonsma, who is PMA's regional Vice President for Asia, Africa, Europe, Australia/New Zealand, shares insights about the produce market in Southeast Asia, which is an emerging powerhouse.



Anouk Sijmonsma

Southeast Asia has a combined population of more than 615 million consumers. The block is rapidly developing into one of the world's more powerful consumer markets. GDP is forecasted to increase 60 per cent from 2013-2023.

Opportunities for fresh produce are ample and growing. The region is highly diverse and understanding of local practices, cultures and consumer demands are key to success.

As a starter, PMA can share three learnings, which will increase chances to succeed in Southeast Asian fresh produce trade: online is here to stay, supply chain is critical and understanding the market is a must-do.

The Produce Marketing Association (PMA) is a trade organisation representing companies from every segment of the global fresh produce and floral supply chain. From our members we learned that there has been a shift to online produce sales across the region. Under COVID, government directives have forced people to work from home and avoid non-essential trips to shopping malls.

Currently, wet markets have started to re-open, but expectations are that online shopping is likely to persist. Barriers that once existed for customers, such as a lack of trust or quality and availability, have been addressed by retailers, with as a result increased keenness to buy fresh produce online. Yet, for many consumers in the region, daily trips to stores and wet markets will remain the basis for produce consumption.

Recently, and a trend that is expected to persist, large investments have been made in infrastructure and cold chain projects in countries such as Indonesia. However, transport and supply chain issues remain major challenges for doing business. An often defective or incomplete cold chain structure in combination with high temperatures and humidity for a unique set of challenges for fresh that exporters might not have experienced in other markets they are working with.

Availability has become a concern, as well as a rise in freight prices, pushing up prices of imported goods. As a response, food security questions have emerged, and self-sustainable farming trends seem to become more proliferate. Whether this can

be achieved is questionable. We do see that domestic fruits are becoming more prominent and important to the market.

Food safety is a key concern in most markets especially when dealing with markets like China. The Chinese market, a large importer of Southeast Asian fruits, has become more focused on own domestic production, with produce origin being an important factor.

Finally, understanding the differences between markets and having good working relationships in country are basics to success in the region. Being mindful to the difference circumstances and cultures, and to what customers are looking for are key requirements.

To conclude, Southeast Asia is a large and diverse region with different market conditions for fresh produce in each of the countries. For those who are looking for additional in depth market information and insights, PMA has conducted of a series of fresh produce and retail markets reports for Vietnam, Thailand, Singapore, Indonesia and Malaysia that are available on PMA.com. 

“FOOD SAFETY IS A KEY CONCERN IN MOST MARKETS ESPECIALLY WHEN DEALING WITH MARKETS LIKE CHINA.”

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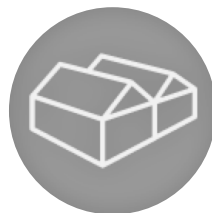
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