



# PLANTING THE SEED FOR A SUCCESSFUL BUSINESS

James Dickson’s passion for plants started in the backyard garden as a boy. He has spent the past 15 years in nurseries and is showing no signs of slowing down in his current role as Head Grower at Gro-Link Nursery, a family-run business at Werribee South in Victoria. James spoke to Michelle De’Lisle about his role at Gro-Link, the future of the business, the challenges faced and his thoughts on the vegetable industry as a whole.

“Growing is a combination of art and science – the art is when to use the science.”

So says James Dickson, Head Grower at Gro-Link Nursery and a private consultancy business owner.

James should know: After 15 years of working in various nurseries around Australia, he has created and designed a process of growing called a *Holistic Approach to Standardised Management*.

“What that means is that all inputs into this facility are factored in and understood,” James explains.

“It’s the quality of the media in which we grow the seedlings, the quality of the water, the nutrients and how all these inputs interact with each other to then create a standardised growing approach, purely for the farmers.”

James’ passion for growing seedlings and his thirst to improve and simplify the growing process has contributed to business and personal success.

His workplace, Gro-Link Nursery, is owned by the Fragapane family. Located at Werribee South, the second-generation business was established 25 years ago and plays an important role in the vegetable industry. Gro-Link was one of the first production nurseries in Australia, and it supplies more than 100 million seedlings per annum to growers primarily located in Victoria.

James’ role as Head Grower involves all aspects of growing, including the full customisation of a nutrient program.

“There are so many different types of varieties and groupings of varieties that it takes a custom growing approach,” he says.

### A THRIVING BUSINESS

James has worked at Gro-Link Nursery for almost four years, and in that time the business has grown 10-15 per cent each year.

“It’s all credit to the Fragapane family. They’ve created a fantastic nursery that just needed somebody with my passion and understanding of growing to help lift it up to the next level. I work so well with Managing Director David Fragapane – I always say that I don’t work *for* the Fragapanes; I work *with* them and that’s how I still feel after four years,” James says.

“I have a fully autonomous role and we work closely with our stakeholders and every seed company in Australia. There are just so many little things that we do and I suppose that’s my biggest input – my experience with nutrient management and being able to grow a consistent, healthy seedling. As a result of that, our business is growing rapidly.”

### GROWER CHALLENGES

Despite a booming business, James says weather is his toughest test as a grower – particularly the conditions

experienced in Victoria over the past 12 months.

“Whatever is happening within the climate, we’re feeling it at the ground level. It’s much harder than it ever has been to grow a consistent crop, purely because of these massive fluctuations in temperature, which also brings more disease pressure or extended life cycles of insects. I just find the last 12 months have been more challenging than ever,” James says.

In response, Gro-Link Nursery – under the watchful eye of James and the Fragapane family – has started to undergo major changes that will span over the next 1-2 years and make way for ongoing growth of the business.

“We’re going through a large-scale retro fitting of our current facility, which will give us a lot more control of our nutrients, our water quality and our sterilisation practices within the nursery. We’re moving from quite a manually operated system to digital dosing systems – all touch screen control systems,” James says.

“We’re also looking at building a large under cover facility, which will give us a lot more temperature control and also take away that huge element of rain events and hail.”

### IMPORTANT ISSUES

There are many areas of research that are vital to the ongoing sustainability of the vegetable industry, and James outlined what he believes are most important.

“What I find is, there’s a gap between the research that’s happening and the average farmer having an understanding of how it benefits them,” James says.

“Continued research around crop protection is also needed. I’m a big believer in Integrated Pest Management – more work needs to be done around using beneficial insects, the natural health of the soil using bacteria and focusing on back when they were farming 100 years ago. Over the generations, farmers have become so used to having high crop protection

inputs and I feel that’s not necessary in this day and age.

“With the farmers that are going back to focusing on the health of their soil, I’m seeing a greater result in their farm with less inputs – whether it be less synthetic fertilising inputs or less crop protection inputs.

“I’d love to see more research done around more sustainable field-growing practices, in the right balance. No-one wants to lose 20 per cent of their crop, but they’d be happy to lose five per cent of their crop if it meant that they weren’t spraying as much and the health of their soil was coming back to how it was 50 years ago.”

### SUSTAINABILITY GOALS

James’ broad knowledge and his standardised management approach to growing was recently recognised at the 2016 Syngenta Growth Awards, where he was named a regional winner in the sustainability sector.

The forward-thinking grower described the experience as humbling.

“I was just so proud to be considered part of that league of industry people,” James says.

“What Syngenta was trying to understand is: How do we better educate the average consumer about why we have to do what we do with vegetable crops? Everybody is able to get information at the touch of their phone, and there is a whole new movement of pest-free and chemical-free produce, but in reality crop protection products play a very important role in the sustainability of being able to provide enough food for the population.

“A healthy, forward-moving seedling is the beginning of all successful farms. It’s so important that the nurseries are producing and delivering healthy seedlings because it impacts the farmers so much if they don’t have that consistency. There’s something really pure and simple about what we do here.”





# R&D EXTENSION PROJECT ENTERS NEW PHASE TO MEET VEG INDUSTRY DEMANDS

Following the success of the Soil Wealth and Integrated Crop Protection (ICP) projects, Phase 2 of the project is now underway. Over the next five years, the new project will incorporate four major themes, with a focus on supporting growers and industry to make business decisions on soil management and plant health.

Phase 1 of the Soil Wealth and Integrated Crop Protection (ICP) extension projects (VG13076 and VG13078) were successfully delivered by Applied Horticultural Research and RM Consulting Group over three years from 2014-17, providing effective national coverage. The feedback from the vegetable industry was strong and positive, with 25 per cent of the industry engaged directly, and 80 per cent reporting that better informed decisions were made because of the projects.

The new Soil Wealth ICP Phase 2 project will respond to increasing economic, consumer, environmental and technological demands on vegetable producers. It will deliver integrated, independent, research-based information to growers and advisers to support business decisions on soil management and plant health from 2017-22.

Soil Wealth ICP Phase 2 (VG16078) is a strategic levy investment under the Hort Innovation Vegetable Fund.

## WHAT THIS PROJECT WILL DO

Phase 2 will be guided by four major themes, reflecting on recent developments in technology and industry needs:

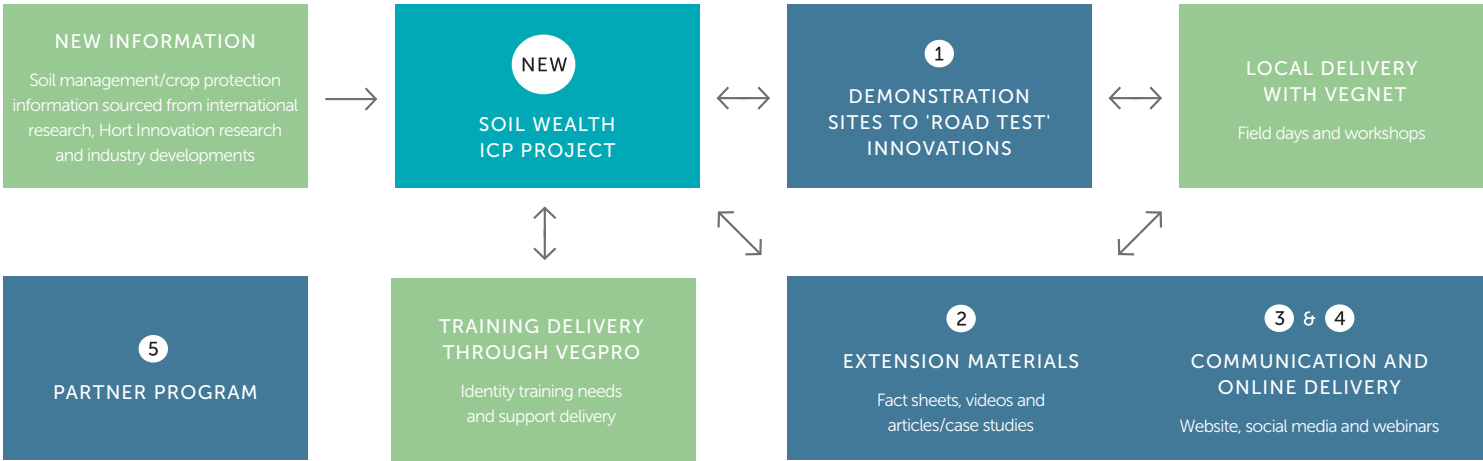
1. Proactively scan and review new developments in technological fields (e.g. use of drones, satellite data, robots, soil and crop health management equipment) and present information to growers in a reviewed (validated), easy-to-use, adoptable and/or adaptable format.

2. A production systems approach reflecting the increase in challenges and sophistication of vegetable farming, the need for high productivity and consistent, quality produce as well as considering the needs of customers (including compliance).
3. Innovations in soil and crop health management which can increase productivity/pack out rates (e.g. reduce waste, have a higher percentage of product meeting specification, improve quality) and/or reduce input/variable costs.
4. Improve sustainability and robustness of vegetable farming systems, especially under adverse conditions including the impacts of increased climate variability and extreme weather events and minimising impacts on the environment.

## BUILDING R&D

The project will aim to 'prime' the industry for the uptake of outputs from relevant R&D projects and new technologies developed in Australia and overseas. This will be achieved by building industry capacity and partnerships with researchers and other industry stakeholders to facilitate the adoption of current and future innovations from R&D projects and technology advancements. It will link with Hort Innovation investments including soil and crop management technology projects, as well as extension and training initiatives such as the National Vegetable Extension Network (VegNET), VegPRO training and AUSVEG communications to provide an integrated extension program to the vegetable industry.

## SOIL WEALTH/ICP PHASE 2 PROJECT: HOW IT WILL WORK



The specific topic areas will cover:

1. Soil amendments.
2. Soil biology.
3. Cover crops and biofumigation.
4. Reduced tillage.
5. Equipment and machinery.
6. Emerging technology and precision agriculture.
7. Nutrition management.
8. Irrigation.
9. Insect, nematode and mite management and crop protection.
10. Weed management and crop protection.
11. Disease management and crop protection.
12. Biological solutions.

## HOW THE PROGRAM WILL BE DELIVERED

The project will use a combination of extension methods to deliver R&D information to industry including:

- Demonstration sites and case study sites in partnership with leading growers and agronomists.

- Showcasing new equipment.
- Best practice guides and fact sheets.
- Webinars and podcasts.
- Field days and farm walks.
- Workshops and seminars.
- Master classes.
- Electronic media: website and social media.
- Videos.

## INFO

For more information, please contact project leaders Dr Gordon Rogers on 02 8627 1040 or [gordon@ahr.com.au](mailto:gordon@ahr.com.au) and Dr Anne-Maree Boland on 03 9882 2670 or [anne-mareeb@rmcg.com.au](mailto:anne-mareeb@rmcg.com.au).

This project has been funded by Hort Innovation using the vegetable research and development levy and contributions from the Australian Government.

Project Number: VG16078



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The Yield Founder and Managing Director Ros Harvey.

# NEW MICROCLIMATE PREDICTIONS SYSTEM OFFERS A DIGITAL LEG-UP TO GROWERS

Australia’s vegetable growers face myriad challenges, including those posed by the environment and the diverse microclimates within it. Digital technology is assisting growers in managing these issues, including Sensing+ by The Yield – an integrated system that gives growers a real-time insight into the unique growing conditions on their farm.

No industry on earth is at the mercy of our natural environment more than agriculture. And for growers amid the diverse microclimates of Australia, environmental complexities and challenges are even greater.

While much has been written of the potential for digital technology to transform the sector, for many growers the promise of ag tech is yet to be realised. A large proportion still rely on a mix of instinct, local knowledge, historical records and weather apps to try and stay ahead of the conditions that can make or break a season.

Among the ag tech companies trying to bridge the gap is local outfit The Yield, which recently released an integrated microclimate predictions system known as Sensing+.

“Growers face enormous uncertainty trying to pre-empt weather, and its impact can be disastrous. Many still rely on weather apps that might be showing data from 50 kilometres away,” The Yield Founder and Managing Director Ros Harvey said.

“For intensive irrigated crops, hyper-local weather conditions matter because local topography, windbreaks and farm infrastructure create microclimates that make standard weather data less helpful. With Sensing+, we can predict microclimate conditions wherever we put hardware, which means an unforeseen level of visibility for crop growers.”

## AN IN-DEPTH VIEW

Sensing+ combines on-farm sensing hardware with artificial intelligence (AI) and user-friendly apps to give growers access to real time microclimate insights – from soil moisture and temperature, to wind behaviour, relative humidity, leaf wetness, total solar radiation (PYR) and photosynthetic active radiation (PAR), air temperature and pressure, and rainfall.

Beyond simply recording data, the system applies AI and data science to predict a range of conditions seven days in advance. This includes evapotranspiration, or ETo, which is displayed as a water surplus or deficit visual in the mobile app.

The system has undergone two years of field testing to ensure

it solves real challenges growers face in the field. In addition to displaying past and future conditions, the mobile app reads like a newsfeed of every activity that has been done on a crop, and can act as an auditable trail. It allows growers to record irrigation and spray activity, and set custom alerts for when adverse conditions are on the way.

## GROWER BENEFITS

Rob Tole, a pea, lamb and fodder grower in Tasmania who supplies peas for Bird’s Eye, began trialling Sensing+ in winter this year. As he reaches peak season, Rob said the system has become increasingly useful to monitor data and soil temperate to predict pasture growth, and to ensure his irrigation schedule is correct.

“It allows us to irrigate on time, and when scheduling is the biggest determination of crop yield – that’s where we get the biggest bang for our buck,” he said.

Rob explained that the ability to access the system’s data on his phone, with regular updates throughout the day, is also a real advantage.

According to Ms Harvey, the technology isn’t about trying to replace farmers but to combine their knowledge with modern tools such as reliable, enterprise-grade hardware and cloud-based analytics.

“This is where I think a lot of technology companies get it wrong – they think they can turn farms into factories and underestimate the critical role that growers play,” she said.

“You’re never going to replace growers. Our work is about giving them the tools they need to better understand their crops, so they can make decisions for an optimal outcome.

“Working closely with growers to determine how we solve the whole business problem – and not just part of it – has been absolutely key.”

## INFO

For more information, please visit [theyield.com](http://theyield.com).



# TOMATO TRIALS PROVE FRUITFUL FOR GROWERS

A field grown tomato variety has been put to the test in 2017, with a continued commercial demonstration trial program now covering most of Australia’s open field tomato production. *Vegetables Australia* reports on its performance in Queensland.

Warmer weather in areas such as far-north Queensland can have a profound effect on the growth cycle of vegetables and other horticultural produce. As a result, many varieties have been developed and tested to strengthen these plants against the elements.

One of these developments comes in the form of the gourmet tomato variety T411653 from Syngenta, or ‘Rifle’ as it is now referred to, which first entered Australia in 2013 as an early stage variety. It was trialed in Queensland along with 64 other new gourmet hybrid tomato varieties.

Compared to approximately 10 plants per trial, this variety was selected based on its positive performance and was trialed again in 2014 to determine greater variety abiotic stress awareness and positioning in the market.

With consistent trial results in 2014, T411653 was again promoted and further seed was required to continue a broader, larger scale trial program for 2015. Unfortunately, a global seed shortage stalled trial plans and variety momentum until additional seed became available again in 2016.

## RETURN TO MARKET

With a new batch of fresh seed and approval of a name change, Rifle was back in the hands of growers in 2016 to undergo a more strategic trial plan. The focus was on the highest volume production areas of open field tomatoes in the Bundaberg and Bowen growing regions of Queensland, where small- and large-scale commercial demonstration trials were selected to test the

variety from the start to the end of the growing season. One of the growers involved in this trial was Trevor Cross from Cross Family Farms in Bundaberg. Cross Family Farms grows a range of tomatoes including cherry, grape, Roma and gourmet as well as other vegetables such as capsicum, zucchini and pumpkin.

Syngenta representatives have worked closely with Trevor, making regular visits to his farm to gauge how the trials are progressing and observe the performance of Rifle compared to other varieties.

Trevor said the trial aimed to find a tomato which was a good size, and displayed a tolerance to warmer weather – and this variety stacked up well.

“The plant itself has got good vigour in the hotter months, and the seed quality is good. It’s just a good quality field tomato,” Trevor said.

Other growers have described Rifle as a consistent performer across all growing cycles with a ‘globe’ fruit shape averaging between 160-180 gram fruit weight, which fits well with market requirements. It can also produce high yields, good uniformity, fruit firmness, shelf life and high weather tolerance.

## INFO

For more information, please visit [syngenta.com.au](http://syngenta.com.au).

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Blue Planet Consulting Managing Director Henry Gordon-Smith at the 2017 Global Innovations in Horticulture Seminar.

# WHAT DOES VERTICAL FARMING MEAN FOR THE VEG INDUSTRY?

Henry Gordon-Smith is a sustainability strategist focused on urban agriculture, water issues and emerging technologies. As managing director of a boutique global urban agriculture consultancy, Mr Gordon-Smith presented at the Global Innovations in Horticulture Seminar held in conjunction with Hort Connections 2017. He spoke to *Vegetables Australia* about the role that vertical farming can play in the vegetable industry.

There are many challenges that modern vegetable growers face, including the continuation of the urban sprawl and extreme weather elements. These topics and more were addressed by US presenter Henry Gordon-Smith at the 2017 Global Innovations in Horticulture Seminar through the concept of vertical farming.

Six years ago, Mr Gordon-Smith established a blog, [agritecture.com](http://agritecture.com), which focused on urban and vertical farming news, business and design. He is now a board member of the Association for Vertical Farming (AVF) and Managing Director of Blue Planet Consulting, a firm which offers a comprehensive insight into urban agriculture project development, offers farm design services and recruits managers for these projects.

At the Seminar, Mr Gordon-Smith discussed the benefits of vertical farming, including a range of real-world case studies on the implementation of vertical farms. He spoke about finding a solution to global farming challenges, and stressed the need to think about the next generation of farmers, and ways we can keep them excited about the industry.

The project *2017 Global Innovations in Horticulture Seminar* (VG15032) is a strategic levy investment under the Hort Innovation Vegetable Fund.

## GOING VERTICAL

Mr Gordon-Smith spoke to *Vegetables Australia* following his presentation, explaining what vertical farming is and why it is important for the vegetable industry to be aware of the practice.

"Vertical farming is controlled, three-dimensional environment agriculture. It involves stacking levels of hydroponic cultivation, and then powering them with artificial (LED) lights," he said.

"The way that it affects vegetable farms is that vertical farms mostly grow leafy greens, and they can grow them faster; they can grow them using less water; and they can grow them closer to the consumer.

"If you're a vegetable grower, you need to know about vertical farming because it has the potential to disrupt your industry as it can sell pesticide-free, local, fresh product to your customers."

## ASSISTING INDUSTRY

Blue Planet Consulting focuses on the systems in vertical farms, and there are a number of engineers and growers on Mr Gordon-Smith's team that lead the design of these systems.

"The systems in vertical farms are expensive – you've got climate controls, lighting, irrigation systems and the automation involved in it. Thus, there is a lot of room for error with each new vertical farm," he said.

"We're not getting any money for selling you a technology; we just understand how to combine the best technologies out there for your context and your operation. We are technology agnostic."

Blue Planet Consulting also offers a recruiting service, due to a deficit of growers that can manage these farms.

"It's a big problem in the United States, especially with the legalisation of cannabis," Mr Gordon-Smith explained.

"Growers can get paid double or triple the amount when they grow cannabis compared to growing vegetables. So, how do you find growers who are excited about growing food and not drugs? That's a very difficult challenge, and we find the motivated individuals that want to work in this industry."

## ADDRESSING ISSUES

As Australia can experience years of crippling drought and floods, Mr Gordon-Smith said that growers can benefit from adopting vertical farming practices to combat these issues.

"While Australia has a lot of space, there are issues with water. Vertical farming allows you to grow those products that have a high amount of water like leafy greens, using less water," he said.

"Furthermore, Australia has shown a lot of leadership in horticulture technology so there's an opportunity – as this is an emerging technology – for Australia to take a leading role in this and export a lot of that knowledge, and actually make some money out of that trade."

R&D

Consumer Alignment

Drive Train

Market & Value Chain Development

Farm Productivity, Resource Use & Management

INFO

For more information, please visit [agritecture.com](http://agritecture.com).

Presentations at the 2017 Global Innovations in Horticulture Seminar are available to watch at [youtube.com/user/AUSVEG/playlists](https://youtube.com/user/AUSVEG/playlists).

This project has been funded by Hort Innovation, using the vegetable research and development levy and contributions from the Australian Government.

Project Number: VG15032

**Hort Innovation**  
Strategic levy investment

**VEGETABLE FUND**

R&D | BEE POLLINATION |

A close-up photograph of a bee on a flower, illustrating the focus on pollination. The bee is positioned on the left, facing right, with its head near the center of the flower. The flower has yellow stamens and a light pinkish-white petal. The background is blurred, showing more of the flower and some green foliage.

# FOCUS ON POLLINATION: BEE INVOLVED FOR A SUSTAINABLE FUTURE

As part of its commitment to the sustainability of Australian agriculture, which balances social, environmental and economic impacts, Bayer is lending its support and international resources to a partnership project investigating healthy bee populations, as well as supporting the development of biosecurity education and awareness materials for beekeepers.

Pollination services present a significant opportunity to boost horticultural production, but are also threatened by potential foreign pest incursions, which would severely impact yields.

Addressing both sides of the equation, Bayer has become involved in a pollination initiative under Hort Innovation, and separately, supported a Bee Biosecurity education project led by Plant Health Australia.

## BRINGING INDUSTRY TOGETHER

The *Healthy Bee Populations for Sustainable Pollination in Horticulture* (PH15001) is a strategic partnership initiative under the Hort Frontiers Pollination Fund. This fund has been established by Hort Innovation to commission projects that bring together global expertise and maximise the industry opportunities that are presented by better pollination.

Co-ordinated by Western Sydney University, the project involves a number of industry partners including Bayer, growers and researchers from Australia and India. It has five objectives, which include identifying key pollinators; understanding the floral resources that bees and other insect pollinators need; studying the impact of climate on plant/pollinator interactions; characterising key bee and pollinator diseases; and understanding farm management that can sustain populations of these pollinators.

"Bayer's role is to bring experience from our global experts and overseas programs including the 'Feed-a-Bee' program, which has been very successful in the US and New Zealand," Bayer Head of Public and Government Affairs – Australia New Zealand Richard Dickmann explained.

"The Australian program includes a similar focus on the nutrition of the bees and other pollinators."

Project participants are also aiming to develop integrated ways of using crop protection options that don't harm bees.

"Crops need both pollination and protection: we have to find smart ways to integrate these systems together," Mr Dickmann said.

"We are helping to locate a number of trial locations in South Australia and Victoria, and providing funding for the program."

## BEE BIOSECURITY

In addition to the Hort Frontiers project, Bayer has contributed funding to the BeeAware video project, led by Plant Health Australia involving several government and industry players (see info box).

This project developed a series of videos which focus on the significant threat of the arrival of varroa mite in Australia. If varroa mite arrives in the country, it will seriously impact both farmed and feral bees, which currently provide free pollination services.

The series of 12 bee biosecurity videos have been released by Plant Health Australia on the website [beeaware.org.au](http://beeaware.org.au).

"The purpose of these videos is to ensure that beekeepers are fully informed about the range of issues they are confronted with, as well as the best way of controlling varroa mite if it arrives. At the same time, maintaining healthy hives is critical to supporting pollination and economic returns for growers," Mr Dickmann said.

## GROWER BENEFITS

Mr Dickmann explained that the bee pollination initiatives and the knowledge gained through these programs are very important to the entire horticulture industry.

"For vegetable growers, a better understanding of introduced and native pollinators could significantly boost the yield of crops such as melons, cucurbits and tomatoes," he said.

"Vegetable growers also work alongside bee keepers and it's important for us to develop integrated and secure systems that protect bees. Another useful tool in this respect is the 'BeeConnected' App, developed by CropLife Australia, which allows growers and beekeepers to communicate their activities anonymously to each other.

"Working together will minimise incidents so both industries can thrive. Longer term, the licence for vegetable growers to operate, often in intensive and urbanised areas, will be protected."

R&D

Hort Frontiers – Pollination Fund

INFO

For more information, please visit [crop.bayer.com.au](http://crop.bayer.com.au) or [westernsydney.edu.au](http://westernsydney.edu.au). Funding and in-kind support for the BeeAware video was provided by the Department of Agriculture and Water Resources, Hort Innovation (Hort Frontiers Pollination Fund), When Bee Foundation, Capilano, Syngenta, the Australian Honey Bee Industry Council, Plant and Food Research New Zealand and Plant Health Australia.

*Healthy Bee Populations for Sustainable Pollination in Horticulture* is funded by the Hort Frontiers Pollination Fund, part of the Hort Frontiers strategic partnership initiative developed by Hort Innovation, with co-investment from Western Sydney University, Syngenta Asia-Pacific, Bayer CropScience, Greening Australia, CropLife and contributions from the Australian Government.

Project Number: PH15001

**hort frontiers**  
strategic partnership initiative

**POLLINATION FUND**

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Photography by Cory Rossiter.



# TIM CARNELL: HARD WORK PAYS DIVIDENDS FOR THIRD GENERATION GROWER

Tucked away in the hills not far from Glen Aplin is Kirra Pines Farming, a rapidly expanding vegetable growing operation that is spread across three locations on the Granite Belt. Michelle De’Lisle spoke to the driving force behind the business, Managing Director Tim Carnell, about the challenges he faces, the importance of on-farm biosecurity and his plans for the future.

Queensland vegetable grower Tim Carnell can consider himself fortunate in comparison to many of his colleagues around the state in recent weeks.

Tim is Managing Director of Kirra Pines Farming, a 235-acre growing operation based at Glen Aplin, located seven kilometres south of Stanthorpe on the Granite Belt. The region was spared the worst of Cyclone Debbie, which hit Queensland in late March and caused widespread destruction to a majority of the state’s key production areas.

Escaping Cyclone Debbie’s wrath brought a sigh of relief to Tim and the Kirra Pines Farming team, with the operation covering seven farms in three growing areas within a 35 kilometre radius.

As a third-generation grower, Tim (who runs the growing operation with his wife Felicity and parents Trevor and Alison) employs 130-150 staff in the peak season alongside 15-20 full-time staff.

Kirra Pines Farming grows tomatoes, capsicums and zucchinis, with leek production in the winter months.

## RAPID GROWTH

As Managing Director of the business, no two days are the same for Tim. He says he is involved in “anything and

everything”, although his role has shifted slightly over time.

“We’re a growing business. What we’ve done over the last five to six years has been quite steep, so my role now is basically coordinating with staff from our business management, administration, operations and maintenance through to our packing sheds and harvest crews,” he explains.

“We’re looking at future developments and opportunities where we can be best positioned going forward.”

Tim says that having three growing areas already provides benefits to the farm.

“We’ve got water security, hail risk management and individual micro climates. Each growing area is unique, and we’re able to schedule our production throughout our growing season starting at the warmer blocks, moving to the cooler farm mid-season, then to warmer sites for the run into late autumn.”

## OVERCOMING CHALLENGES

Weather aside, vegetable growers face many other obstacles, both on-farm and in the daily running of their businesses. Negotiating with markets, keeping up with supply and demand plus the cost of labour and compliance are all challenges facing Tim and his business, as well as future energy costs.

Fortunately, there are already plans in place to help combat these challenges.

“We’re looking at everything from energy efficiency with our pumps and all of our electrical equipment in packing sheds to conserve where we can. We’re also looking at technology we can implement to make us more efficient as a business,” Tim says.

“On the labour side, we focus on the cost of every job and every task and consider where we can make piece rate available for certain jobs. This allows staff to make more money per hour, and it enables us to have a more stable unit price.

“Anything we can be doing to reduce labour and cost through the implementation of technology is critical to our future.”

## TAKING BIOSECURITY SERIOUSLY

Kirra Pines Farming has its own in-house biosecurity policy, as there is a lot of movement between farms. This includes protocols on general hygiene, farm hygiene and the cleanliness of machinery and infrastructure.

Staff are conscious to keep the movement of equipment between farms to a minimum and wash machinery if transported, while all contractors receive a biosecurity induction.

“Certainly, biosecurity is something that we’ve got to be aware of. We all feel a little bit immune on our farms and think that it won’t happen to us. However, we’ve seen in recent times certain disease outbreaks around Australia and the world in horticultural crops, so we need to be on the front foot with those,” Tim explains.

“You’ve got people entering the farms who need to be aware of keeping to the designated areas.”

## ACHIEVING GOALS

Water security is a major focus for Tim, and has played a significant role in the growth of Kirra Pines Farming. As the farms rely entirely on surface water and are situated on the Granite Belt, water is a precious resource.

“As we grow our business, we still want to grow the same quality, if not better quality than a smaller grower. Achieving this as a larger operation and not losing sight of the quality we need in the marketplace is certainly challenging. Having strong relationships in the industry helps as well, whether it be from a sales or marketing perspective or from key suppliers through to our staff,” Tim says.

“Another factor for our growth and success thus far is having a focus not so much on production or volume. We are looking at profitability and approaching our business as an agribusiness, not just turning numbers out for the sake of it. We’re looking at the return per hectare; profit per mega litre of water; and making rational decisions based on good quality information at hand.”

## LOOKING AHEAD

Despite the business advancements made over the past six years, Tim is still keeping an eye out for future opportunities.

“There’s definitely more growth for our business in the future. We’ve got some good marketing relationships with supermarket chains, wholesale markets and processors so there’s plenty of potential in all of those areas,” he says.

There is an ongoing succession plan in place at Kirra Pines Farming. Tim says this is another huge challenge facing those in the vegetable industry.

“I think one of the biggest challenges for family farms is succession planning, and how we succeed to the next generation. The cost price squeeze, profitability and the overall business dynamic is very different to 30 years ago,” he says.

“I’m proud of being able to achieve the growth which we have had in a relatively short amount of time. With that comes a lot of hard work, and Felicity and myself are fortunate that my parents have supported the changes and growth our business needed.

“We’ve got three young daughters, so potentially in another 10 years we could have the next generation coming into our business. I suppose that is in the back of your mind – setting some kind of platform that they could potentially join if they choose.”





# POTENTIAL FOR VEGETABLE PRODUCTION IN THE GOULBURN MURRAY IRRIGATION DISTRICT

Located 180 kilometres north-east of Melbourne, the Shepparton region has long been a leading producer of fruit and dairy. However, with the upgrade of road networks and transportation, a good supply of water and a variety of horticultural services already established, the area is prime to become Australia’s next vegetable bowl. Committee for Greater Shepparton CEO Sam Birrell explains.

Climate, soil suitability and the logistics of transporting perishable produce to large population centres in good condition are factors that must be taken into consideration when establishing a vegetable growing region. Access to good quality and affordable water is also key.

Several of these factors are changing in their nature and, as road networks improve and large tracts of land are opening for different kinds of agriculture, there is an opportunity for vegetable production to move to the north of Victoria.

## GOULBURN MURRAY IRRIGATION DISTRICT

The Goulburn Murray Irrigation District (GMID) has long been the heart of Australia’s fruit and dairy production. It is home to one of the world’s largest gravity-fed irrigation schemes, with its network of channels delivering water to farms over a 9,950-square kilometre area. At the heart of the GMID is the city of Greater Shepparton, which has a population of 66,000 and is home to many food manufacturing facilities, including SPC Ardmona and Campbell’s Soup.

Fruit production around the Shepparton region has transitioned over recent years. Orchards traditionally grew fruit for processing and fruit for the fresh market, in roughly equal proportions. As consumer trends have changed, the focus is far more on fresh varieties. Many processing orchards have been pulled out and replanted with high density, modern-style orchards which have a far higher yield per hectare than the older-style orchards. What this means is that while the production of fruit in the Shepparton region is increasing, the land use by orchards is generally not.

## PRODUCTION SHIFT

The main vegetable production in the GMID has traditionally been tomatoes (fresh and processing). This has reduced in recent years with a higher proportion of fresh tomatoes coming from protected

cropping. Increasingly, zucchinis, capsicums and more recently broccoli have been grown successfully on land near Shepparton that was previously processing pear orchards. These crops are proving to be well-suited to the sandy loam soils of the region.

It is becoming more difficult to grow vegetables in the peri-urban fringes of major capital cities. Housing developments are getting closer and closer to the farms, and the issues around co-existence of agriculture and people, such as spray drift, are becoming more apparent. With improved road networks, the trend must surely be to move large-scale vegetable production out of these peri-urban areas, to established irrigated agricultural areas.

## OPPORTUNITY FOR GROWTH

The Committee for Greater Shepparton sees great opportunities for the GMID to become one of Australia’s premier vegetable growing areas. There is abundant land, and water is in good supply and accessible via the upgraded GMID Connections project. With the new Nagambie bypass, the Melbourne Market in Epping is only a 1.5-hour drive from Shepparton. The town and its surrounds are already set up for horticulture, with services such as chemical and fertiliser retailers, irrigation suppliers, machinery outlets and agronomists already in the region.

The leadership of the GMID is very proactive in attracting vegetable production to the region, and government agencies have an obliging attitude to potential investors.

INFO

For more information, please visit [c4gs.com.au](http://c4gs.com.au).



AUSVEG reached a cumulative national audience of 1,961,850 in December, with 496 media reports mentioning AUSVEG across print and broadcast outlets.

On 9 December 2016, AUSVEG announced the appointment of James Whiteside as its new CEO. Mr Whiteside appeared extensively in the media discussing his background in agribusiness and his plans for the future of the organisation. AUSVEG Chairman Geoff Moar also appeared on broadcast media welcoming the appointment.

## INDUSTRY ADVOCACY

AUSVEG appeared extensively in the media during the ongoing “backpacker tax” debate. Following the announcement of the Federal Government’s compromise deal with the Australian Greens, AUSVEG National Manager – Public Affairs Jordan Brooke-Barnett appeared widely on radio welcoming the 15 per cent tax rate. He noted the industry was glad a decision had been reached, while also condemning the drawn-out political negotiations leading to the compromise. He said that AUSVEG will be watching the situation closely to monitor if growers experience labour shortages.

In other agri-political news, AUSVEG National Manager – Communications Shaun Lindhe appeared on radio calling for reform to the labour hire sector to stamp out the mistreatment and exploitation of workers in the vegetable industry. Mr Lindhe also discussed AUSVEG’s proposal for labour hire firm registration.

## VEG CONSUMPTION

With Australian children’s consumption of vegetables sitting below the daily recommended servings from the Australian Dietary Guidelines, Horticulture Innovation Australia commissioned CSIRO to create a vegetable education resource for use in schools that aims to increase children’s willingness to eat vegetables. Mr Lindhe said the kit contains a range of different activities and educational techniques to connect with children at each stage of their learning.

The latest findings from Project Harvest consumer research were also publicised, with AUSVEG spokesperson Jarrod Strauch discussing the ongoing eagerness for Australians to move beyond traditional cooking styles. Mr Strauch said Chinese, Thai and Indian cuisines are among the most popular options for consumers looking to expand their cooking repertoire in the coming year.

R&D  Drive Train

INFO

Communication of R&D projects in the Australian vegetable industry has been funded by Horticulture Innovation Australia Limited using the National Vegetable Levy and funds from the Australian Government.

Project Number: VG15027





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EDITED by James Cathcart 2016 August 2016

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