Volume 28 Spring 2026

SOILLESS AUSTRALIA

Protected Cropping Australia Industry Trade Magazine

What's new in automated grafting

Tomato nutrition under the microscope

Reduce risk and improve investment outcomes

Can co-location of greenhouses and data centres work in Australia?

www.protectedcropping.net.au

SINCE 1990

Research around the health outcomes of a diet rich in fresh produce will be shared in a new marketing program. Photo Adobe Photo Stock.

There's good news around a new marketing campaign launched by Hort Innovation to encourage healthy eating.

Hort Innovation is the umbrella group charged with spending the research and marketing funds raised through horticultural levies. To keep on top of how those levies are being spent, Hort Innovation has just launched an eye-catching digital magazine called *Marketing Impact*. It covers marketing campaigns for a range of crops.

One of the campaigns that's underway and relevant to crops grown under protected cropping is a push to educate health professionals about the value of fresh produce. The campaign titled 'Healthy Horticulture' will focus on the science behind food recommendations.

The Healthy Horticulture program has been funded by Hort Innovation and sets out to equip healthcare professionals, educators, and public health authorities with credible, evidence-led resources that make it easier to talk about the role of fresh produce in healthy Australian diets.

At a time when Australians are navigating fast-moving nutrition trends, cost-of-living pressures and persistent confusion about what 'healthy' looks like in practice, the new program is designed to cut through with practical, science-backed information about everyday fresh produce.

The program will bring together shared infrastructure, including a central Healthy Horticulture brand and content hub, a consolidated health professional database and core communication channels, while still delivering tailored messages for the participating avocado, fresh potato and vegetable industries.

Backing credible voices

Anthony Kachenko, General Manager Production and Sustainability R&D at Hort Innovation, explained why the project matters for both growers and the wider community: "Health professionals are trusted voices in the food choices Australians make every day, so giving them credible, practical and up-to-date information about fresh produce is a powerful way to support healthier diets and stronger demand for Australian horticulture.

"This program is about taking the science we already have, translating it into tools health professionals can use, and making sure fruit and vegetables are part of the conversations that influence behaviour and public sentiment. For growers, that means investing in long-term demand by helping more Australians understand the value of what they produce."

By combining industry effort through one coordinated program, Healthy Horticulture aims to reduce duplication, maximise reach and support a more united voice for Australian fresh produce.

Keep in touch

To contact the PCA office, call (02) 9037 3166, email admin@protectedcropping.net.au or visit the PCA website at protectedcropping.net.au.

"...THE NEW PROGRAM IS DESIGNED TO CUT THROUGH WITH PRACTICAL, SCIENCE-BACKED INFORMATION ABOUT EVERYDAY FRESH PRODUCE."

Discover PCA's webinar library

One of the benefits offered to PCA members is access to a broad range of webinars on a range of topics around the protected cropping industry.

Here are some of the webinars added to our website this year, which range from an overview of protected cropping in Canada and a visit to Greentech, to issues of labour, insurances and profitability.

- 'Trade dynamics, virus management, and the rise of AI integration in protected crops: a Canadian perspective'.
- 'Discover Greentech Amsterdam 2026'.
- 'Rising costs, underinsurance risks and insurance options for glasshouse operators'.
- 'Squeezed margins, smarter spending how profitable growers invest differently'.
- 'Seeding, scaling and sustaining skills and labour in protected cropping'.

To view webinars, visit protectedcropping.net.au. If you have any access issues, would like to sponsor a webinar, or request a topic, contact admin@protectedcropping.net.au.

Coming up...

New research into nutrition in tomatoes from PC Hub at La Trobe University in Melbourne will be featured in an upcoming Protected Cropping Australia and PC Hub joint podcast, where the researchers will discuss the findings, their practical implications for growers, and the role of advanced plant phenotyping in the future of protected cropping. More details will be available to all PCA members via email in October.

The site's location beside the River Derwent provides ample fresh water for strawberry growing. Photos Edwina Robertson.

Strawberry propagator launches new expansion with grand opening

A Tasmanian strawberry propagator has doubled its annual plug plant capacity to five million plants. In early August politicians, the media, growers and business owners visited the farm to witness the unveiling of Stage 4 of the expanding agricultural business.

Premier of Tasmania, Hon. Jeremy Rockliff, officially opened JCLM Farming's Stage 4 misted tip facility at an event attended by state and federal members of parliament, local government representatives, leading Australian strawberry growers, suppliers, contractors, berry industry representatives and media representatives.

The expanding agricultural business provided a ray of good news for the state which is currently losing large industrial players due to rising power costs.

Construction of the $800,000 expansion, including 12 additional polytunnels erected over one hectare, began last November and finished ahead of schedule in mid-June.

JCLM Farming is a family-owned and operated business at Ouse in Tasmania's Derwent Valley.

Set on the Derwent River in the Central Highlands, it is ideally situated to grow a secure supply of high-chill strawberry bareroot and plug plants from the world's best breeding programs for distribution to premium producers around

Jack Beattie celebrated the opening of a large extension to his strawberry propagation facility in August in regional Tasmania.

Australia including proprietary and public variety cultivars.

The high-tech strawberry propagation operation is one of two of its kind in Tasmania and among several in Australia with misted tip capability.

JCLM Farming, which built its first polytunnel in 2023, now has 26 tunnels – all providing

A large data centre. Photo Adobe Stock.

Can greenhouses and data centres co-locate?

The co-location of greenhouses and data centres has been flagged as a win win situation but can it happen and what are the pros and cons of such a venture. *Soilless Australia* takes a deep dive into current thinking and looks at what the future may hold.

The boom in AI and the data centres that support them puts Australia and the world at the edge of an energy and technological transformation. The $140 billion wave of investment heading to Australia provides a once-in-a-generation opportunity for greenhouses and protected cropping – but we must get it right.

While they might look like unlikely bedfellows, data centres and greenhouses have a lot in common. Or more accurately they share a lot of synergies.

Data centres are voracious consumers of energy, most of which becomes waste heat requiring substantial investment in cooling systems. That same 'waste' heat can be a valuable resource for greenhouses and a potential opportunity for the protected cropping industry.

While heating costs vary significantly depending on the crop and location, they can account for to 45 per cent of operating costs. Escalating gas prices have made it uneconomic to heat some greenhouses during winter and driven up prices of crops like tomatoes, capsicums, cucumbers and eggplants. So, the prospect of a cheap heat source could reduce costs while increasing a grower's utilisation.

And then there are other synergies like access to renewable energy, batteries and smart use of recycled water.

Government view

The Australian government sees the huge economic potential of the data centre boom and has moved swiftly to secure our share of investment and shape where and how these new data centres will be constructed.

In March this year, the Department of Industry, Science and Resources set out the Government's five expectations of data centres and AI infrastructure developers (see 'Expectations for data centres that deliver for Australians'). These expectations position the co-location of data centres and greenhouses as a winning combination.

"CO-LOCATING A GREENHOUSE WITH A DATA CENTRE DOESN'T JUST PROVIDE RESOURCE SYNERGIES, IT COULD BE A DECIDING FACTOR TO GREENLIGHT A DEVELOPMENT..."

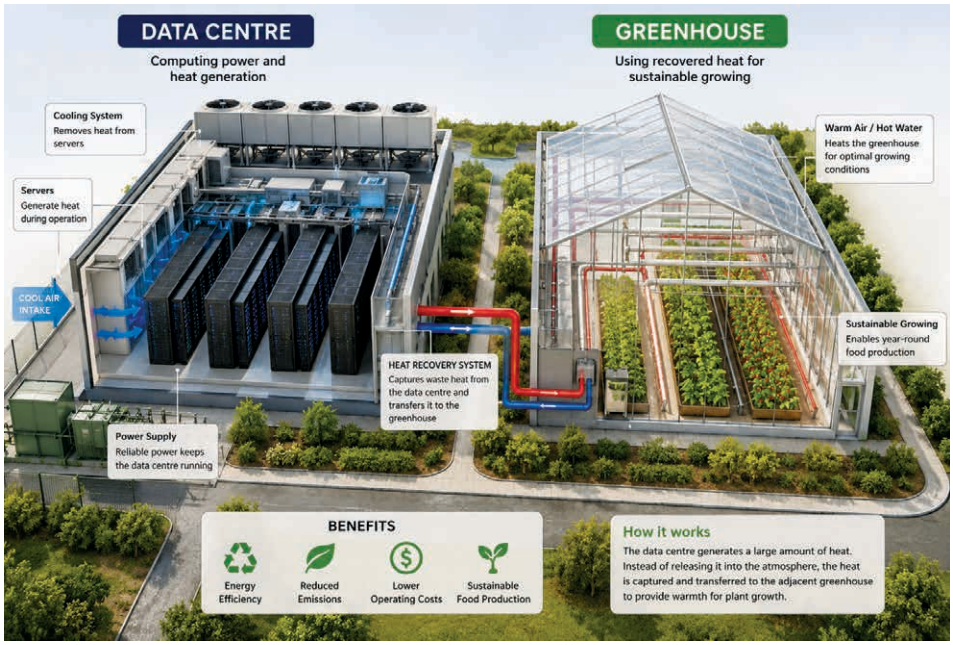
What are data centres and why do we need them?

Data centres are critical digital infrastructure used to store, process and transmit huge volumes of data at ultra-high speeds. They consist of servers, networking and data storage systems powering the world's AI boom.

Australia has a once-in-a-generation opportunity to secure its place as a top data centre destination to attract leading players in the global AI boom to our shores giving a massive boost to the Australian economy.

Our stable investment environment, excellent connectivity, and abundant renewable energy give Australia a strong competitive advantage. According to a recent Westpac report, investment in Australian data centres will exceed $140 billion by 2035*.

*Source: https://www.westpaciq.com.au/economics/2026/05/australian-AI-data-bulletin-2026



An AI-created vision of how a data centre and greenhouse could co-locate.

"IN THE NETHERLANDS, AGRIPORT A7 IS A WORKING MODEL FOR HOW CO-LOCATION COULD PLAY OUT IN AUSTRALIA."

$1 million per hectare or more depending on the location.

"A greenhouse operator would be interested in getting a free ride on the waste heat, but that may not be enough to persuade them to place their greenhouse along side someone else's data centre," he said.

Tony argues the cost of building the energy and water infrastructure, on top of the greenhouse construction costs, may be too much for a grower.

"They are probably going to be hesitant to put all their eggs into one basket. It's a great idea but the devil is in the detail."

Tony Bundock in a traditional greenhouse.

With a minimum economic size of around a hectare for a greenhouse there could be the opportunity for several growers to locate their operations on the larger site.

The main challenge isn't the technology; there are already proven engineering solutions. The real challenge is to create the ecosystem where all the players – data centre, energy and greenhouses – can come together and realise the benefits of co-locating.

Dutch model

In The Netherlands, Agriport A7 is a working model for how co-location could play out in Australia. Established in 2006 as a cluster of greenhouses, the site is now a thriving 1000ha high-tech business park home to more than 50 businesses. There are logistics companies, storage, greenhouses and data centres including hyperscale sites for tech giants Microsoft and Google.

It required an entire ecosystem of players to get it up and running but the park now thrives through resource sharing, and a localised green-energy infrastructure. The greenhouses have an exceptional annual yield of 70kg of tomatoes per square metre.

The building boom in data centres over the next decade will demand large scale investment in nation building infrastructure. It could also be a pivotal opportunity for protected cropping to prove its worth in creating jobs, export dollars and to contribute to Australia's food security needs.

Agriport A7 shows the way

One successful model for co-location of data centres and other industries is Agriport A7 in The Netherlands. The 1000ha site started in 2006 as a cluster of greenhouses but has grown to into a high-tech business park. In addition to greenhouses, it is now home to more than 50 businesses including logistics companies, storage, and data centres including hyperscale sites for tech giants.

Agriport A7 is powered by its own geothermal heat pumps supplemented by wind power. It is also connected to the national grid and produces power for more than 200,000 households.

While the facility is highly successful it was pioneering and needed support from a number of players. Government played a vital role in making this project possible. It now operates with four key stakeholder groups:

- Horticultural companies that own and operate large scale independent greenhouses, primarily growing tomatoes and capsicums and covering some 630ha of the site.
- Major multinational corporations including Microsoft and Google own their footprints on the site with multiple data centres.
- A private company, Agriport A7 BV, which develops and manages the infrastructure.
- A geothermal energy operator acting as the local private utility to service the park's cooperative power, heating, and water grids.

Automated grafting now more accessible for growers

An outline of equipment to harness the power of automation for grafting productive plants including tomatoes.

"One of the biggest challenges in greenhouse horticulture is supplying high-quality grafted plants," says Theo Arvanitakis, Sales Manager Oceania at TTA-ISO.

"Grafting is essential for greenhouse vegetables and field crops such as watermelons, tomatoes, cucumber, and stone fruits. It strengthens plants, increases disease resistance, and improves yield. Traditionally, however, grafting is labour intensive and requires skilled hands.

"In an industry where skilled labour is scarce and expensive, this can create a bottleneck. TTA-ISO has automated the grafting process, offering entry-level and advanced automated grafting solutions. By reducing the dependence on skilled manual labour, automation helps growers achieve more consistent, high-quality grafts, leading to healthier plants, higher yields, and a more predictable production process."

Consistent quality and labour savings

For greenhouse growers, automation represents a huge step forward and allows them to meet the demand for grafted plants without hiring additional staff.

"Automation ensures uniform results, which improves crop quality and makes greenhouse operations predictable and manageable," says Theo, emphasising the importance of consistency,

Automated grafting is becoming increasingly accessible for growers who want to take their first step toward a more efficient and consistent grafting process. TTA-ISO offers entry-level grafting solutions designed for nurseries with lower production capacities or growers who want to automate without immediately investing in a fully automated line.

The Graft Single is a compact, semi-automatic grafting machine for young vegetable plants. With a capacity of up to 1000 grafts per hour, it is an accessible solution for nurseries looking to improve consistency, reduce manual labor, and make the transition to automated grafting step by step.

TTA-ISO also recently introduced the Graft CC, an entry-level grafting machine for

Theo Arvanitakis (left) with colleague Ben Pieterse at Hort Connections in Adelaide where they were running a stand for TTA-ISO.