

Innovation and Integrity

Conference 2024 | 15–16 May, Hamilton

Overview of Conference Event 2024



NEW ZEALAND PLANT PRODUCERS INCORPORATED

Innovation Day May 15



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Innovation Day

Innovation Day was a great success and we have received a lot of positive feedback.

The morning included a tour of [Annton Nursery](#) in Cambridge, hosted by Steve Burton, plus demonstrations by:

- Nathan Hewson from [Advanced Horticulture](#) of the latest Ellepot paper-pot machine and a diverse range of pre-made plugs.
- Joel Wearmouth from [PrimeHort](#) of the FiberCell paper pot machine with a potting mix loader.
- Richard Beaumont from [Agover](#) of the fourth generation autonomous Govor electric tractor.
- Nick Hoskins from [Bioscout](#) of the company's spacial mapping of airborne disease.

The afternoon was based in Ruakura and involved a tour of vertical farm [Greengrower](#) and presentations by:

- Samantha Baldwin of Plant & Food Research on the future of indoor growing.
- Karen Orr of ECCA and Ellery Peters of Vegetables NZ on how to improve your energy efficiency.



Industry Awards May 15



Winner: Paige Brewster
Norfolk Rd Nursery,
Wairarapa



Paige has been in the industry for 5 years and is currently completing an apprenticeship in nursery production. Paige has passion for the industry and is building her knowledge of the propagation and botany of native species. She is respected for this with Norfolk Rd's customers and within Wairarapa's conservation community. She is moving into a leadership role in the nursery where she is involved in mentoring and teaching others. Paige will receive a \$5000 scholarship.

"Learning about plants and plant production is a pleasure, rather than a chore. I am inspired to continue my learning, including in areas like plant science"

SUSTAINABLE FUTURES AWARD

Winner: Van Lier Nurseries
Auckland



In addition to shifting toward using sustainable materials in their growing operations and in their packaging, Van Lier have recently installed over 8 million litres of water storage capacity. In 2023 Van Lier Nurseries completed a significant project, transitioning their glasshouse heating systems from gas, to a CO² heat pump system.

"We have found that choosing the more sustainable option isn't always the more difficult or more expensive option. It just requires some research, creativity and adjustments to your business processes"



Opening Address May 16

Marie Taylor:

NZPPI Chair

In her opening statements, NZPPI Chair, Marie Taylor outlined the key issues facing our industry, ranging from the RMA, plant imports and HSNO, to horticulture research, vocation education reform and subsidised nurseries.

Hon Andrew Hoggard

Minister: Biosecurity, Food Safety.

Associate Minister: Agriculture (Animal Welfare, Skills), Environment.

The Minister responded to our stated issues, giving his views that the new Government is committed to regulatory reform, with policies that are focussed on supporting property rights and making it easier to do business.

The Minister called for our industry to advocate with a single voice. He explained that he has had many groups and individuals from our industry approach him, particularly on the topic of plant imports, stating; “Work out what you all want, then come to me with one voice so we can sit down and work it out”.

Similarly with skills and education, the Minister noted that the system is fragmented with individual groups in the primary industries doing their own thing; “There is a lot of good stuff happening, but it’s happening in isolation and not in a cohesive way”.

The Minister appeared surprised at the issue of subsidies in the native nursery industry. He explained that any government involvement in a market should be justified and is only appropriate where there is a clear market failure.

NZPPI agreed to meet with the Minister to follow up on these issues.



Actions for NZPPI:

- **Continue to put in submissions on plant import issues and regulatory reforms.**
- **Prepare for the announcement about the future of the vocational education system.**

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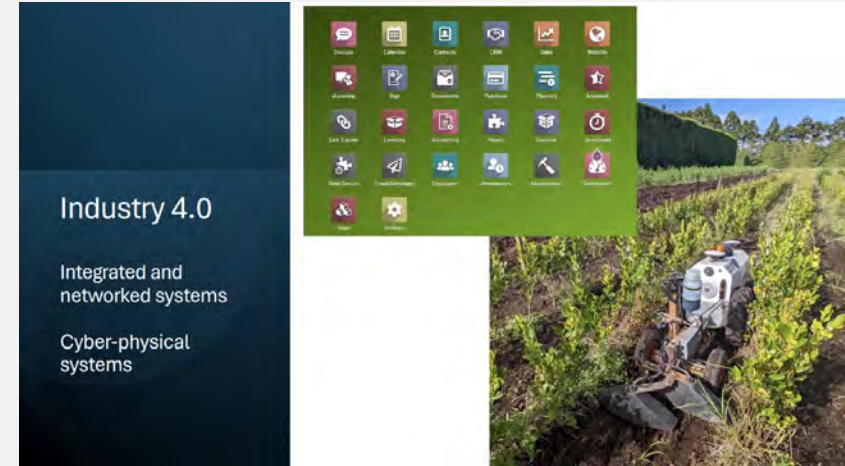


Kara Beaumont, Ardmore Nurseries

How might industry 4.0 be relevant to a 50-year-old nursery?

Summary of Kara's presentation:

- Ardmore is a family owned wholesale nursery business.
- Over the past 50 years Ardmore has moved through phases of industrial development - 1.0 Mechanisation, 2.0 Electrification, 3.0 Automation & Computers, 4.0 Integrated & Networked systems.
- Industry 4.0 is about networked systems, such as Enterprise Resource Planning (ERP) software and a cloud-based data storage system.
- It also includes the Internet of Things (IoT) to connect technology like robots (e.g. Agovor) that are used for tasks like weed spraying, crop monitoring etc.
- Ardmore attended Smart Factory events and completed a Smart Industry Readiness Index (SIRI) assessment. This led to connecting equipment on the production floor to optimise resource use and monitor performance.
- There are challenges to moving into Industry 4.0 in an operation that still has 1970's equipment and infrastructure alongside modern tools, so it has to be done in strategic stages.
- By focusing on data-driven decision-making and carefully staged upgrades, Ardmore Nurseries aims to fully realise the benefits of Industry 4.0 while preserving its 50-year-old legacy.



Actions and advice for producers:

- **Attend Smart Factory events, provided by Callaghan Innovation**
- **Complete a Smart Industry Readiness Index (SIRI) assessment.**
- **Use data to develop a business case for new tech and to drive decision-making**



Simon Yarrow, Callaghan Innovation

Seeding Futures: Agritech's Global Path for NZ

Summary of Simons presentation:

- Globally, agritech is rapidly shaping the future of agriculture, increasing productivity, while solving problems in areas like energy, sustainability, optimising supply chains, and meeting compliance requirements.
- It has a key role to play in providence, traceability, logistics, and plant health. Technology can play a pivotal role in enhancing the efficiency and transparency of supply chains, ensuring the quality and safety of plants and plant products.
- New technologies can also help businesses by automating processes and ensuring adherence to standards.
- Simon noted that it was often difficult for tech start-ups to get established. He called on our industry to support agritech companies in their scale-up phase to navigate through the 'second valley of death' - the critical phase between startup success and sustainable growth.
- Callaghan Innovation has a shared a vision for the future, where technology and innovation drive the growth and sustainability of New Zealand's primary sectors.



Actions and advice for producers:

- Resources like the Agitech Activator are available to identify, use and support new agritech companies and research
- Attend Agitech Activator events



Samantha Baldwin, Plant & Food Research (PFR)

Developing Future Growing Systems

Summary of Samantha's presentation:

- New technology and growing systems are emerging, enabling growers to meet the demands of a rapidly increasing global population, projected to exceed 9 billion by 2050. Availability of productive land, climate change, and supply chain disruptions are challenging our existing production systems.
- Incremental changes of current systems are insufficient; instead, major shifts in innovative growing systems are happening, which are accompanied by a new generation of naturally bred plant varieties, suited to new production systems.
- PFR is looking at how the use of sensors and data can enhance our horticulture production systems for covered cropping, field crops and orchards to enable precise control over growing conditions therefore enhancing productivity and sustainability.
- Controlled Environment Agriculture (CEA) uses precision horticulture techniques, sophisticated sensors and real-time data to optimise growing conditions.
- The PFR project "Horticulture Goes Urban" involves the development of indoor growing systems for perennial plants like fruit trees and vine crops. These systems enable high-yield, nutrient-dense crops, normally grown in orchards and vineyards to be grown in cities.
- These technologies are challenging and potentially disruptive. Rather than dismissing this technology, PFR encourages producers to engage and understand the implications and opportunities.



Actions and advice for producers:

- **Join the Indoor Growing Collective to help advance indoor growing technologies.**
- **The initiative includes regular meetings, workshops, and the development of an action plan to address challenges and opportunities in indoor growing.**



Tony Wilson, CEO Agrecovery Foundation

The future of plastics' recycling

Summary of Tony's presentation:

- Agrecovery is recognised by MfE as the Product Stewardship Scheme for the primary sector.
- Agrecovery already collects and recycles agrichemical containers and plastic bags but will extend its programmes from 2026 to cover a range of materials captured in the new waste regulations.
- The regulated materials currently include agrichemical containers and drums, bale wrap and silage sheet, small seed feed and fertiliser bags, large grain and fertiliser bags. The next phase will include irrigation piping, plastic plant pots and trays, tunnel house covers, vineyard netting, hail netting and other coverings, shrink wrap and rubberware.
- Agrecovery is recommending establishing an Advisory Group to connect the industry with regulators and to lead the planning, design and oversight of a stewardship scheme.

Kerbside recycling update from NZPPI

- This year, the Ministry for the Environment (MfE) published a list of materials allowed in kerbside recycling. This list excluded plant pots. Reasons included that pots must be cleaned and that black coloured pots are unable to be detected by sorting equipment.
- In September, MfE will open applications for more materials to be included and our industry is invited to submit an application to include PP5 pots. To support this application, MfE wants to see an industry plan that includes how pots will be cleaned and a shift to coloured PP5 pots.



Actions and advice for producers:

- Collaboration across whole industry will be required to develop and sustain a stewardship scheme.
- Continue to think about ways to reduce and reuse plastics, as recycling is expensive.
- Prepare for a levy on plastic pots and trays to fund their recovery and recycling.



Gerard Vaughan - Thriving in plant production - wellbeing science, tools and tips

Summary of Gerard's presentation:

- Farmstrong is an initiative to help farmers, growers and their families to cope with the ups and downs of the primary sector by sharing things they can do to look after themselves and the people in their business.
- Plant production is a job with a unique set of challenges but it is vital that growers develop the skills and resilience to cope.
- As an industry, we can't afford to let work pressures reach the point where they damage productivity and affect the lives of families.
- Key principles of wellbeing:
 - Shared identity: people learn better from those with a shared social identity.
 - Learnable skills: mental strengths can be increased through various skills.
 - Population impact: Small changes in individual wellbeing can lead to big overall health improvements.
- Best Investment Areas:
 - Small and regular habits: consistent actions to improve wellbeing.
 - Support networks: building and maintaining support systems.
 - Thinking skills: enhancing cognitive abilities and positive thinking.
- Farmstrong supports growers by:
 - Sharing stories of what has worked for other growers and farmers
 - Partnering and collaborating with other organisations
 - Developing tools, resources and educational content
- Farmstrong and NZPPI will look to partner up and see if specific resources are needed for the plant production industry.



Actions and advice for producers:

- Check out the resources at farmstrong.co.nz
- Sign up for the Farmstrong newsletter to keep up to date with events and modules
- Read and share the Farmstrong book in the conference delegate pack.





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