

INDOOR GROWING SUMMIT 2025



13–14 May 2025
Auckland, New Zealand

PROGRAMME

13th May 2025– Hobson Room, Rydges Hotel, Auckland

Registration

8am: Registrations open.

Tea and coffee available

Welcome

8.45am: Official welcome and opening

Jenny Green, Plant & Food Research, New Zealand

Theme 1: Environmental Sustainability

9:00am: Paul Fisher, University of Florida, USA

Reduced inputs and waste: Water treatment and fertilizer strategies for recirculating systems

Hydroponic systems with recirculating nutrient solutions have potential to conserve water and nutrients, thereby reducing production costs and environment damage. However, in practice there are several challenges to having a closed system, such as water quality, nutrient imbalance, plant pathogens, algae and biofilm. This presentation will provide tips to successfully capturing and reusing nutrient solutions, to help growers approach zero runoff in a closed irrigation system.

9:40am: Andrew Barber, Agrilink, New Zealand

A review of the Guideline for Greenhouse Nutrient Solution Discharge

10:10am: Morning tea

10:40am: Antony Heywood, Vegetables NZ, New Zealand

Introduction to the session: Energy workshop

10:50am: Robert Lindsey, Island Horticulture, New Zealand

11:20am: Karen Orr, EECA, New Zealand

Update on EECA work of relevance to protected cropping including an update on RETA (Regional Energy Transition Accelerator) for Auckland

11:50am: Lunch and networking

12:50pm: Case studies for NZ

12:50pm Patrick Dempsey, Genesis Energy, New Zealand

Energy market update and a decarbonisation case study

13.10pm Celia Wells, GeoExchange NZ Ltd, New Zealand

Decarbonising cover crops with geoheat project

13.30 Andy Bedford, North Island Manager, Ecogas

Ecogas and how partnerships can provide energy security

Theme 2 - Economic

14:00pm: Charlie Hall, Texas A&M University, USA

Economic benchmarking and costing for controlled environments

The purpose of benchmarking is to enable growers to compare their operational and financial performance on several key performance indicators (KPI's) and identify critical industry trends (direction of movement) relative to those KPI's. Growers use these metrics to help support meaningful business decisions to drive improved profitability and financial stability. This presentation will provide an overview of the most useful metrics to growers to aid in costing, pricing, and operations management.

14.40 Panel discussion: What do we need to do next in NZ

3:15 – 3:30pm: Afternoon Tea

Theme 3 - Expanding the industry

15:30pm: Celina Gómezva, Purdue University, USA

Introduction and how to grow the industry: Vertical indoor propagation of transplants

Young-plant growers are uniquely positioned to benefit from new technologies in controlled-environment agriculture. In the U.S., early technology adopters are starting young plants indoors, which helps reduce losses and improves rooting and growth during propagation. This presentation will explore the potential use of sole-source LED lighting in propagation as a low-risk, cost-effective solution to reduce shrinkage, shorten cropping cycles, and enhance plant uniformity and quality during greenhouse finishing.

16.10pm Byron van Vugt, Investment Manager, Movac

Evolving New Zealand's role in the global food economy.

How New Zealand can capitalise on its deep expertise in food production whilst addressing global concerns around sustainability and increasing desires for localised production.

5:00pm: Wrap up of the day

Evening dinner: Rooftop Terrace, The Rydges

Cash bar available from 6pm Dinner served from – 6.35pm

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Welcome

8.45am: Welcome

Jenny Green, Plant & Food Research, New Zealand

Theme 4 - Expanding the industry continued

9:00am: Global Warming-Global WarNing.

Michael Nichols, Oxbridge, New Zealand

Possible effect on horticulture in NZ. What can we do to reduce (or even exploit) global warming, (eg protected cropping etc).

9.30am Hort. Goes Urban: Expanding fruit crops adapted for protected cropping

Plant and Food Research, New Zealand

9:45am: Morning Tea

10:00am: Supply chain needs and trends

Brigit Corson, Foodstuffs, New Zealand

Theme 5: Smart use of Technology

10:30am: Erik Runkle, Michigan State University, USA

LED lighting for greenhouses and vertical farms to optimize yield, quality, and energy efficiency.

LED lighting is now the go-to technology to supplement sunlight inside greenhouses and to deliver the sole source of light indoors. Unlike conventional lighting fixtures, LED products deliver different quantities and colours of light, which influence plant growth, crop quality, energy consumption, and installation. In this presentation, Erik will discuss considerations when selecting a lighting system, particularly how the light spectrum and intensity regulate plant growth, key performance characteristics of LED fixtures, and installation considerations.

11:10am: Jono Jones, Bluelab, New Zealand

Smart use of technology

11:40am: Premjit Tarafdar, ElecSys LAB, New Zealand

The Smart Canopy Interface: Lighting, Climate & Pest Control in One System

Introducing a modular, field-tested grow light canopy system that dynamically adapts to plant growth, controls microclimate at the canopy, and delivers targeted UV or foliar treatments — all while lowering total energy use. Already in crop-stage validation.

12.10pm: James Harris, Apex Greenhouses

Update on Greenhouse technology

12:30pm – 1:30pm: Lunch

1:30pm: Samantha Baldwin, Plant & Food Research, New Zealand

Panel discussions: Where are the opportunities and what are the barriers.

3:15 – 3:30pm: Afternoon Tea

Theme 6: Advocacy and Education

Building capability, knowledge sharing and collaborations

3:30pm: Liam Griffin, SPL, New Zealand

The Tour of Learning – Germany / Netherlands.

4:00pm: Emma Boase, VICE / Te Ahikawariki, New Zealand

Te Ahikawariki - Vegetable Industry Centre of Excellence building capability for our future workforce.

Te Ahikawariki - Vegetable Industry Centre of Excellence is a recently developed initiative looking to enhance research, extension, and capability outcomes for Aotearoa vegetable growers. As part of this work, those involved have analysed and developed a vegetable sector workforce strategy and plan. We will cover the current state of the vegetable workforce, future forecast of the vegetable workforce, how the potential skill 'gap' will be filled, and what actions and initiatives we are doing that can support this. We will also share opportunities for growers, advisors, researchers, and educators that can support the vegetable sector to have a fit for purpose and adaptive workforce into the future.

4:20pm: Wrap up and acknowledgements