RETA

# DRAFT PROGRAMME

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

## Registration

8am: Registrations open

## Welcome

8.45am: Official welcome and opening

## Session 1: Sustainability

#### 9:00am

### Environmental Sustainability

#### Reduced inputs and waste:

#### Water treatment and fertilizer strategies for recirculating systems

Paul Fisher, Professor and Floriculture Extension Specialist at the Environmental Horticulture Dept., University of Florida, Gainesville Florida USA

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 A review of the Guideline for Greenhouse Nutrient Solution Discharge

Andrew Barber, Agrilink, Auckland

#### 10:10am Morning tea

#### 10:40am Energy workshop

#### Introduction to the session: Antony Heywood, Vegetables NZ

**10:50 Tour of learning: "Covered cropping- insights from Europe 2025"**

Robert Lindsey, Managing Director, Island Horticulture (30 minutes)

**11:20 Update on EECA work of relevance to protected cropping including an update on RETA (Regional Energy Transition Accelerator) for Auckland**

Karen Orr, Sector decarbonisation advisor, EECA (30 minutes)

#### 11:50am Lunch and networking (1 hour)

#### 12:50pm Case studies for NZ (15mins plus 5-10min Q&A)

* **Energy market update and a decarbonisation case study**

Patrick Dempsey, Genesis Energy

* **Decarbonising cover crops with geoheat project**

Celia Wells, GeoExchange NZ Ltd

* **Ecogas and how partnerships can provide energy security**

Any Bedford, North Island Manager, Ecogas

#### 2:00pm

### Economic

#### Economic benchmarking and costing for controlled environments

Charlie Hall, Professor in the Department of Horticultural Sciences at the Texas A&M University and holder of the Ellison Endowed Chair in International Floriculture

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.

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

#### 3:15 – 3:30pm Afternoon Tea

## Session 2 - Expanding the industry

#### 3:30pm Introduction and how to grow the industry

#### Vertical indoor propagation of transplants

Celina Gómezva, Associate Professor in the Department of Horticulture and Landscape Architecture at Purdue University, West Lafayette, IN USA

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.

#### Evolving New Zealand’s role in the global food economy.

Byron van Vugt, Investment Manager, Movac

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

## 5:00 Wrap up of the day

## Evening dinner: Rooftop Terrace, The Rydges

# 14th May - Hobson Room, Rydges Hotel, Auckland

#### 8:45am Welcome

## Session 2 - Expanding the industry continued

#### Global Warming--Global WarNing.

Mike Nichols, NZ

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

#### Hort. Goes Urban: Expanding fruit crops adapted for protected cropping through breeding

Plant and Food Research, NZ

#### 9:45am Morning Tea

#### 10:00am

#### Supply chain needs and trends

Brigit Corson, Head of Produce and Butchery, Foodstuffs

## Session 3: Smart use of Technology

#### 10:30am

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

Erik Runkle, Professor and Extension Specialist in the Department of Horticulture at Michigan State University.

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 colors 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.

#### 10:40am Smart use of technology

Jono Jones, Bluelab, NZ

#### 11:10am The Smart Canopy Interface: Lighting, Climate & Pest Control in One System

Premjit Tarafdar, Director, **ElecSys LAB, NZ**

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.

#### 11:40am Update on Greenhouse technology

James Harris, Apex greenhouses

#### 12:30pm – 1:30pm Lunch

#### 1:30pm Robotics

#### AI in farm systems

IPM technologies

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

## Session 4: Advocacy and Education

Building capability and collaborations

#### 3:30pm The Tour of Learning – Germany / Netherlands.

Liam Griffin, SPL

#### 4:00pm Te Ahikawariki - Vegetable Industry Centre of Excellence building capability for our future workforce.

Emma Boase, VICE / Te Ahikawariki - People Capability Lead

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.

## 4:30pm Wrap up and thanks