



# The Greenhouse Technology Network

Vineland Research and Innovation Centre is an independent, not-for-profit organization dedicated to horticulture science and innovation. As a member of the Greenhouse Technology Network (GTN) consortium, we collaborate with small- and medium-sized (SMEs) greenhouses and related technology businesses in Southern Ontario to support regional economic growth.

## What we do

GTN was created thanks to support from the Canadian government and is a consortium of research-focused organizations with a mandate to increase innovation capacity and grow the Ontario greenhouse industry.

GTN solves innovation challenges by:

- Growing connections across the greenhouse industry and facilitating research collaborations
- Linking research centres focused on industry challenges to apply knowledge and solve problems
- Connecting greenhouse and related technology SMEs in Southern Ontario with the best research expertise, state-of-the-art equipment and technology and experienced research project management
- Leveraging funding to encourage business-led innovation

## About our research projects

- Project intake is ongoing
- Projects can take two to 24 months to complete depending on complexity
- Projects accepted for funding must be completed by March 31, 2024
- Funding is leveraged up to a 1:1 match depending on eligible and supported costs
- Businesses contribute a minimum of 20% cash and are eligible for in-kind contributions to a maximum of \$100,000
- Projects are managed by full-time researchers for successful outcomes

## Connect with us

Please contact [info@vinelandresearch.com](mailto:info@vinelandresearch.com) to discuss technology challenges and project ideas,



**vineland**  
RESEARCH & INNOVATION CENTRE



This project is funded in part by the Government of Canada through the Federal Economic Development Agency for Southern Ontario.

**Canada**

**Vineland Research and Innovation Centre offers a range of expertise and capabilities to support technology research for the greenhouse industry.**

## Automation

- Mobile robotics
- Adaptive systems
- Machine learning
- Uncertainty quantification
- Robotic manipulators
- Data analytics
- Smart irrigation
- Guidance, navigation, control
- Computer vision
- IT infrastructure
- Modelling & simulation
- Efficient production

## Biological Crop Protection

- Biological control
- Bio-stimulants
- Greenhouse pest management
- Entomology
- Plant disease management
- Etiology, epidemiology, pathogen detection
- Disease resistance
- Integrated pest management

## Consumer Insights

- Sensory profiling by a trained panel
- Demographic data
- Focus groups and intercept interviews
- Online surveys
- Consumer taste tests
- Instrumental & statistical analysis of product characteristics

## Plant Responses & the Environment

- Nutrition
- Secondary metabolism
- Soil quality
- Plant physiology
- Controlled environment plant production
- LED light applications
- Growing media applications
- Soil remediation

## Plant Variety Development

- Applied genomics
- Induced variation
- Biochemical profiles
- DNA sequencing analysis
- Trials for cultivar evaluations
- Trait development
- Analytical chemistry
- Metabolite profiles & analysis
- Genetic mapping
- Genomic predictions
- Reverse genetics
- Plant biochemistry
- Bioinformatics
- Plant breeding & genetics

Eligible GTN projects are focused on new or improved technologies supporting innovation development or adoption. Projects can be at any stage of development and length may vary based on the type of assistance required. Greenhouse and related technology businesses may participate in more than one research project.