



Canadian  
Horticultural  
Council

Conseil  
canadien de  
l'horticulture

The voice of **Canadian fruit and vegetable growers**

# Canadian AgriScience Cluster for Horticulture 3

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# AgriScience Cluster for Horticulture 3

An investment of nearly \$21 million, with \$13 million from AAFC, Cluster 3 brings together expertise from academia, industry, and government to address key challenges in the horticultural sector.



Berry  
1 project  
\$1.3 million



Vegetable  
2 projects  
\$4.2 million



Greenhouse  
3 projects  
\$1.35 million



Apple  
2 projects  
\$1.3 million



Potato  
8 projects  
\$9.85 million



59 Researchers and 32 Institutions  
collaborating in the field and in the lab



Over 70 Industry Contributors investing nearly \$8 million

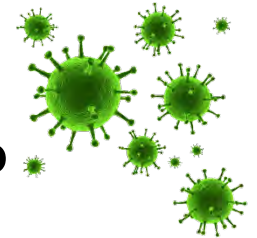
- **Priorities addressed:**
  - Pest management tools
  - Production & post harvest practices
  - Variety evaluation
  - Labour efficiencies

Activity # and Commodity	Activity Title	Lead Researcher and Institution
Activity 2 - Apple	Sustainable Control Practices for Apple Pests in Canada	Suzanne Blatt, AAFC Kentville
Activity 3 - Apple	Advancing Storage and Postharvest Practices to Improve Apple Quality and Reduce Loss	Jennifer DeEll, OMAFRA
Activity 4 - Berry	The Canadian Berry Trial Network	Beatrice Amyotte, AAFC Kentville
Activity 5 – GH	Integrated management of the pepper weevil, an invasive pest of greenhouse pepper crops in Canada	Rose Labbe, AAFC Harrow
Activity 6 – GH	Evaluating biological control strategies for the tomato leafmining moth ( <i>Tuta absoluta</i> ), a potential invasive greenhouse pest in Canada	Rose Labbe, AAFC Harrow
Activity 7 - GH	Reduced production cost and enhanced labour efficiency using the Guelph Intelligent Greenhouse Automation System	Medhat Moussa, University of Guelph
Activity 8 - Vegetable	Optimizing <i>Delia</i> pest monitoring and management in vegetable brassicas	Jade Savage, Bishops University
Activity 9 - Vegetable	Development of All-Male Asparagus Hybrids with Improved Traits	David Wolyn, University of Guelph

<b>Activity 8 - Vegetable</b>	Optimizing Delia pest monitoring and management in vegetable brassicas	Jade Savage, Bishops University
<b>Activity 9 - Vegetable</b>	Development of All-Male Asparagus Hybrids with Improved Traits	David Wolyn, University of Guelph
<b>Activity 10 - Potato</b>	Development of Regional Management Strategies and Decision Making Tools for Control of Colorado Potato Beetle	Chandra Moffatt, AAFC
<b>Activity 11 - Potato</b>	Generate and Evaluate Integrated Pest Management Tools for Wireworm Control in Potatoes in Canada	Christine Noronha, AAFC
<b>Activity 12 - Potato</b>	Increasing profitability of Canadian potato production by controlling common scab	Claudia Goyer, AAFC
<b>Activity 13 - Potato</b>	Late blight: Tracking pathogen strains and their characteristics	Rick Peters, AAFC
<b>Activity 14 - Potato</b>	Enhancement of Canadian Potato Industry through Smart Agriculture	Athyna Cambouris, AAFC
<b>Activity 15 - Potato</b>	Investigating the occurrence and distribution of potato tuber necrosis-inducing viruses in Canada and studies on varietal responses to the viruses for minimizing economic losses cause by the pathogens	Xianzhou Nie, AAFC
<b>Activity 16 - Potato</b>	Variety Evaluation	Erica Fava, AAFC
<b>Activity 18 – Potato</b>	Canadian Potato Early Dying Network (CanPEDNet)	Mario Tenuta, University of Manitoba

# Looking Ahead to 2025

- Online Survey all Cluster 3 Researchers, Participating Institutions and Industry Contributors
- Reviewing innovation priorities for Cluster
- Exploring future research funding opportunities with other Government of Canada departments
- Assessing COVID-19 impacts
  - What challenges were faced?
  - As a result, what should we do differently in the future?






# Planning for Cluster 4

## Planning for Cluster 4 – Proposed Steps & Timelines

*Subject to change; based on Cluster 3 experience and estimates from AAFC for Cluster 4*

Activity	Timelines										
Commodity group Research and Innovation Strategy document review: ongoing discussions	2021										
Commodity group Research and Innovation Strategy: updates to priorities	<table border="0"> <tr> <td>Tree Fruit</td> <td></td> </tr> <tr> <td>Small Fruit</td> <td></td> </tr> <tr> <td>Potato</td> <td>Fall 2021</td> </tr> <tr> <td>Greenhouse Vegetable</td> <td></td> </tr> <tr> <td>Field Vegetable</td> <td></td> </tr> </table>	Tree Fruit		Small Fruit		Potato	Fall 2021	Greenhouse Vegetable		Field Vegetable	
Tree Fruit											
Small Fruit											
Potato	Fall 2021										
Greenhouse Vegetable											
Field Vegetable											
Finalize Priority Lists	Fall 2021										
Call for Expressions of Interest	November 1, 2021										
Deadline for EOIs	January 1, 2022										
Commodity Group review of EOIs (including discussions on possible Industry Contributions) & Decisions on Request for Proposals	January 2022										
Request for Proposals	February 1, 2022										
Deadline for Proposals (first draft, ready for peer review)	April 1, 2022										
Ongoing discussions on Industry Contributions (Letter of Support requests)	Spring 2022										
Peer Review Process	Spring & Summer 2022										
Project leads finalize proposals and project details, based on peer review results	Summer & Fall 2022										
Finalize details on Industry Contributions	Fall 2022										
Final deadline for all project details (budgets, workplans, summaries, etc.)	December 15, 2022										
Cluster 3 application is completed & submitted	January 2, 2023										

# 3 Key Priorities

- Labour Efficiencies
    - Labour gap in horticulture – expected to increase to 46,500 jobs by 2025
    - COVID-19 challenges (travel restrictions, social distancing, PPE costs, etc.)
    - Automation
  - Sustainability
    - Environmentally sustainable practices
    - Climate change
  - Pest Management Tools
    - Biopesticides, beneficial organisms, sustainable control practices
- 



# How can we collaborate?

- Exploring partnerships across the country and across commodities
  - Example: Labour efficiency solutions may have the potential to help many different sectors of horticulture
- Looking for expertise and knowledge in all areas along the supply chain - from growers to input providers to processors to packers to retailers

*The Canadian AgriScience Cluster for Horticulture 3 is generously funded in cooperation with Agriculture and Agri-Food Canada's AgriScience Program (a Canadian Agricultural Partnership initiative), the Canadian Horticultural Council and industry contributors.*



<https://www.hortcouncil.ca/en/projects-and-programs/current-projects/>