

The greenhouse vegetable sector is represented nationally by its members at the Fruit and Vegetable Growers of Canada (FVGC). FVGC'S Greenhouse Vegetable Working Group (GVWG) members represent growers from British Columbia, Prairies, Ontario, Québec, and Atlantic.

We work closely with a range of stakeholders and government partners to help inform policy and regulatory decisions, support sector profitability and sustainability, maintain and enhance market access and trade, and ensure an innovative, competitive sector with a strong growth agenda.

AUGUST 2, 2024

Contents

Summary of Recommendations	2
Recommendation 1: Carbon Relief & Regulatory Support for Greenhouse Growers	2
Recommendation 2: Invest Carbon Pricing Proceeds in Greenhouse Agriculture	2
Recommendation 3: Develop a national risk mitigation program for Canadian Greenhouse Vegetab Growers	
Recommendation 4: Increase resources dedicated to expand trade opportunities	2
Preamble	3
Introduction	3
Leaders in Agricultural Sustainability	3
Canadian Greenhouse Excellence Network	3
Recommendations	4
Recommendation 1: Carbon Relief & Regulatory Support for Greenhouse Growers	4
Recommendation 2: Invest Carbon Pricing Proceeds in Greenhouse Agriculture	4
Recommendation 3: Develop a national risk mitigation program for Canadian Greenhouse Vegetab Growers	
Recommendation 4: Increase resources dedicated to expand trade opportunities	6

Summary of Recommendations

Recommendation 1: Carbon Relief & Regulatory Support for Greenhouse Growers

Carbon pricing relief inclusive of all fuel types, farming activities, and machinery used in modern Canadian agriculture. [Bill C-234 amendments to the GGPPA; CRA implementation]

Recommendation 2: Invest Carbon Pricing Proceeds in Greenhouse Agriculture

- 2.1 Invest in the critical infrastructure necessary for greenhouse agriculture. [Finance, ECCC, AAFC, ISED, NRCan]
- 2.2 Develop a new national greenhouse agriculture-focused program modelled after the ISED Net Zero Accelerator initiative, which would support transformative research, innovation and technology, emission reduction pathways, and decarbonization projects in the greenhouse sector with on-farm adoption strategies, extension and advisory services available to transition and remain competitive. [Finance, ECCC, AAFC, ISED, NRCan]

Recommendation 3: Develop a national risk mitigation program for Canadian Greenhouse Vegetable Growers

Develop plant pest and disease preparedness programming that complements existing AAFC Business Risk Management (BRM) programs to manage targeted and unforeseen risks, incentivize early pest reporting with predictable compensation, and ensures effective emergency response activities including crop destruct and disposal. [AAFC, CFIA]

Recommendation 4: Increase resources dedicated to expand trade opportunities

Strengthen trade policy and regulatory alignment to maintain market access and support the growth and competitiveness of Canadian greenhouse exports. [AAFC, CFIA]

Preamble

The GVWG appreciates the opportunity to provide recommendations to the House of Commons Standing Committee on Finance to inform the 2025 Federal Budget. The Government of Canada has an opportunity to help further drive our sector's economic potential through key investments and by removing regulatory barriers.

Introduction

Canada is the North American leader of greenhouse fruit and vegetable production.

The Canadian greenhouse fruit and vegetable sector contributes over \$4 billion annually to the Canadian economy. With over \$2.5 billion in farm gate sales, approximately \$1.4 billion in exports in 2022, and an estimated 30,500 total jobs supported throughout the supply-chain, the sector is an agricultural powerhouse and leader of greenhouse produce in North America.

Canada's 892 fruit and vegetable greenhouses grow primarily tomatoes, bell peppers and cucumbers. Major growth opportunities are anticipated from increased investment in year-round lit production and expanded crop/variety offerings, new and expanded opportunities in export markets, automation in the workplace, and developing a skilled and adaptive workforce ready to mitigate risks associated with emerging threats, or market disruption.

Leaders in Agricultural Sustainability

As world-class leaders in sustainable agriculture, greenhouse growers are dedicated to excellence and are known for their early adoption of new technology and sustainable practices.

Canadian greenhouse vegetable growers' success is owed to the investment made into their environment-controlled growing technology, robotics and automation, hydroponic systems/closed-loop recirculation systems, and Integrated Pest Management (IPM) programs with preventative biosecurity measures, biological controls, and beneficial insects. These approaches confer a range of environmental benefits including energy efficiency, health and safety of workers, 'reduce-reuse-recycle' of irrigation water and fertilizers, and significantly reduced use of traditional pesticides.

Canadian Greenhouse Excellence Network

The Fruit and Vegetable Growers of Canada's Greenhouse Vegetable Working Group (GVWG) has embarked on a strategic initiative, the *Canadian Greenhouse Excellence Network (CGEN)*, which aims to mobilize expertise, research, and innovation by connecting stakeholders at the critical intersection of food production, energy, and the environment.

CGEN will showcase the greenhouse vegetable sector's dedication to global leadership in sustainable agriculture and agri-food. It will play a crucial role in helping the sector contribute to the Government of Canada's 2030 GHG emissions reduction targets and progress towards net-zero by 2050.

Recommendations

Recommendation 1: Carbon Relief & Regulatory Support for Greenhouse Growers Carbon pricing relief inclusive of all fuel types, farming activities, and machinery used in modern Canadian agriculture. [Bill C-234 amendments to the GGPPA; CRA implementation]

- Government policies need to recognize that supplemental carbon dioxide, provided by combustion of carbon-based fuels, is an essential production input provided for indoor crops along with heat and energy.
- Despite carbon pricing exemptions and rebates, we must re-emphasize that greenhouse vegetable growers continue to pay unavoidable, significant, and rising carbon costs that stifle innovation, displace investment and jobs, and hamper global competitiveness.
- A targeted and time-limited carbon pricing exemption for specified on-farm fuel uses is the right approach to ensure Canadians can be assured the agricultural supply-chain is resilient, sustainable, and competitive.
- To encourage year-round domestic food production capacity, energy policies should support the investments in combined heat and power (CHP; a.k.a. co-generation system), whereby greenhouse growers generate electricity for their crop. Where energy regulators' policies allow, these engines are well-placed to supply the grid to help meet peak energy demand.
- Greenhouse gas (GHG) emission reduction targets must come packaged with responsive regulatory mechanisms designed to
 - offset and stabilize the rising costs of carbon pricing on greenhouse growers (20% carbon cost on natural gas/propane);
 - support sector growth spurred by research and innovation to transition to a low-carbon footprint;
 - o limit both carbon leakage¹ and investment leakage² into neighboring jurisdictions which have limited exposure to carbon pricing.
- The federal price signal cannot achieve its desired effect where the sector has no feasible path forward.

Recommendation 2: Invest Carbon Pricing Proceeds in Greenhouse Agriculture

2.1 Invest in the critical infrastructure necessary for greenhouse agriculture. [Finance, ECCC, AAFC, ISED, NRCan]

- Coordinated federal, provincial, regional and municipal infrastructure investments are essential because they underpin private industry and on-farm investments, address critical infrastructure bottlenecks, and allow for the expansion of greenhouse acreage and supply-chain capacity.
- Transitions to energy alternatives and timelines face significant barriers including a lack of available technology, limitations of the current public infrastructure (e.g., water, wastewater systems, natural gas and electrical grid capacity), and/or affordability (e.g., working capital, reinvestment, rate of return on investment for capital expenditures).

¹ Carbon leakage occurs through the importation of products from jurisdictions where carbon pricing is not in place, or is a significantly smaller factor in their cost structure.

² Investment leakage occurs when Canadian-owned greenhouse expansion is made in the US or Mexico to take advantage of economic incentives and policy conditions that are more favourable.

- The greenhouse sector attracts a diverse talent pool including high-skilled jobs. Certain
 workforce shortages can be alleviated through expanded access to digital connectivity, advanced
 automation, and robotics. Reliable access to agricultural workers is part of Canada's critical
 infrastructure, and essential to support food security, supply chain stability, and sustainable
 agriculture solutions.
- The successful adoption of digital agriculture relies on government commitments to a data-governance strategy that supports innovation, addresses cybersecurity vulnerabilities, and helps create secure platform(s) for data exchange where agricultural data is valued, and farmers' rights are protected.
- 2.2 Develop a new national greenhouse agriculture-focused program modelled after the ISED Net Zero Accelerator initiative, which would support transformative research, innovation and technology, emission reduction pathways, and decarbonization projects in the greenhouse sector with on-farm adoption strategies, extension and advisory services available to transition and remain competitive. [Finance, ECCC, AAFC, ISED, NRCan]
 - The escalating costs directly imposed on greenhouse vegetable growers for carbon³ have been estimated at \$29 million in 2024 and are expected to rise to \$82-100 million by 2030. Coupled with a 44% increase in operating costs within the past five years⁴ this is out-pacing the greenhouse sector of its ability to reinvest.
 - Address the needs and opportunities of greenhouse agriculture in the government's environmental policy, focusing on to clean economy tax credits, clean hydrogen, clean technology adoption, clean fuel standards and clean electricity relative to Large-emitters.
 - Design incentives and advisory services for the installation of supplemental lighting, renewable energy systems, heat recovery, innovative glazing materials, and circular waste-to-revenue streams such as biodigesters that promote access to renewable natural gas (RNG).
 - Build decision-making support tools to help policy makers and greenhouse operators identify
 optimum energy alternative(s) including renewables (wind, solar), clean hydrogen blends using
 existing natural gas infrastructure, and further the exploration of energy options such as
 geothermal, industrial-sized electric heat pumps, and Small Modular Reactors (SMRs), as
 identified in partnership with academia, regional energy providers, and provincial government
 efforts.
 - Clean energy solutions must be piloted, validated, and demonstrated in greenhouse production systems to be a valuable investment to operators and their communities.
 - Current programs managed by Innovation, Science and Economic Development Canada (ISED),
 Natural Resources Canada (NRCan), Environment and Climate Change Canada (ECCC), and
 Agriculture and Agri-Food Canada (AAFC) are commonly over-subscribed, and/or unable to meet
 the scale of financial need required to be effective e.g., Agricultural Clean Technology Program –
 Adoption Stream. AAFC Program priorities provided support for BMPs applicable to other
 sectors, e.g., On-Farm Climate Action Fund focuses on nitrogen management, cover cropping,
 and rotational grazing.

³ FVGC GVWG estimates and analysis based on natural gas combustion for crop inputs: heat and carbon dioxide.

⁴ Statistics Canada. Table 32-10-0025-01 Specialized greenhouse producers' operating expenses

Recommendation 3: Develop a national risk mitigation program for Canadian Greenhouse Vegetable Growers

Develop plant pest and disease preparedness programming that complements existing AAFC Business Risk Management (BRM) programs to manage targeted and unforeseen risks, incentivize early pest reporting with predictable compensation, and ensures effective emergency response activities including crop destruct and disposal. [AAFC, CFIA]

- Support the expansion of Agrilnsurance to include greenhouse crops. With the exception of whole-farm insurance and highly expensive private sector insurance options (mainly for business interruption coverage, structure, boilers), greenhouse vegetable growers have no opportunity to insure for pest outbreaks and crop loss events.
- Safeguard Canada's plant resources and food security with support for development and implementation of plant health strategies including on-farm preventative biosecurity measures, Integrated Pest Management tools, insect screens or other pest control barriers.
- Extend financial coverage from crop destructs either as required by CFIA for quarantine pests, or in emergency response by the sector for regulated, non-quarantine pests, to incentivize early pest reporting with predictable compensation, to limit the risks from emerging global pests, economically devastating pests, and to mitigate against non-tariff trade barriers.
- Support the expansion and diversification of commercial-scale greenhouse crops within an agile, well-resourced, and supportive regulatory environment in critical areas including:
 - o plant breeding innovation for disease-resistant varieties (CFIA),
 - development of crop protection tools (PMC, PMRA registrations and re-evaluations of conventional, biopesticides, disinfectants, certified organic options),
 - o grade standards, packaging and labelling of fresh fruit and vegetables (ECCC, CFIA).
- Assist operators with financial incentives to manage the cumulative regulatory demands placed on greenhouse growers within the highly competitive retail marketplace, and a growing list of third-party audited certification programs including IPM, food safety, labour, and other industryled initiatives.
- Amend the AAFC AgriRecovery program eligibility requirements to ensure it is responsive, predictable, and accessible across sectors as to its criteria that triggers an AgriRecovery assessment.

Recommendation 4: Increase resources dedicated to expand trade opportunities

Strengthen trade policy and regulatory alignment to maintain market access and support the growth and competitiveness of Canadian greenhouse exports. [AAFC, CFIA]

- Demand for Canadian greenhouse products is steadily growing. The U.S. demand for fresh fruits and vegetables exceeds its production capacity and has demonstrated opportunities to expand into underserved U.S. markets.
- Regulatory alignment with our key trading partners that facilitates efficient and safe movement
 of plants and plant products between Canada and the US, supports the growth of Canadian
 exports.
- Support Canadian competitiveness though incentives aimed at meeting federal targets and climate change strategies that are commensurate with the level of ambition and comparable with the U.S. programming.

- Develop new international markets and the elimination of non-tariff barriers to trade in international trade agreements.
- Organics Implement Recommendation 12 of the AGRI Committee Report: Improving the Resilience of Canada's Horticulture Sector⁵
- Review and modernization of the concept of a "Canada-U.S. Perimeter Strategy" to ensure a commitment to mutually defend our principal trading partner(s) against the unintentional introduction of emerging plant pests and invasive species, and the associated risks including non-tariff trade disruptions, in addition to protecting the domestic production base.
- Seek CFIA support for Pest Risk Assessments that recognize the sector's concerns re: overwintering and establishment of non-native/tropical/invasive pests; and other pathways including propagative material and plants for planting.

For more information, contact:

Julie Paillat
National Coordinator, Greenhouse Vegetable Sector
Fruit and Vegetable Growers of Canada
jpaillat@fvgc.ca

⁵ https://www.ourcommons.ca/Content/Committee/441/AGRI/Reports/RP13189862/agrirp20/agrirp20-e.pdf