THE GROWER

SEPTEMBER 2025 CELEBRATING 146 YEARS AS CANADA'S PREMIER HORTICULTURAL PUBLICATION THEGROWER.ORG

INNOVATION

Leafy greens: from commodity to "clean" consumer packaged goods

Family-owned Haven Greens launched a fully-automated, greenhouse-grown leafy greens facility in February 2025, the first of its kind in Canada. CEO Jay Willmot oversees five acres of crispy baby lettuce during its 25-day cycle at King City, Ontario. Photos by Paul Novosad.

KAREN DAVIDSON

Far from the greenhouse epicentre of Leamington, Ontario, a new automated five-acre facility is harvesting and packaging baby greens nine hours each day, seven days a week. It's a personal vision come true for Jay Willmot.

Growing up on Kinghaven Farms, King City, Ontario, Willmot was family to Canadian horseracing royalty. From this background, patience and not making foolish, uneducated bets became part of his DNA. After a successful legal career providing counsel to various renewable energy and agribusiness clients, Willmot decided it was time to take the family farm in a new direction.

His aim was nothing short of a state-of-the-art, environmentally sustainable greenhouse. And he hit the mark in February 2025 with the launch of Haven Greens, a facility less than an hour's drive north of Toronto. With ready access to millions of consumers and a full-time staff of just 40 people, the greenhouse is today offering Baby Green Lettuce, Baby Red and Green Leaf and Baby Spring Mix. They are currently marketed through three major retailers -- Metro, Sobeys, and Giant Tiger – along with a host of smaller independent retailers. Unsurprisingly, given the three-day shelf life of competitive product shipped by truck from California, the food service industry has quickly pivoted to Haven Green's boxed three-pound bags, which represent the bulk of the company's current sales.

Global technology

Willmot credits Finland-headquartered Green Automation's mobile gutter system that maximizes space, eliminates manual transplanting, and improves input cost efficiency for Haven Greens' lightning-speed launch success. The innovative growing system guides 17-foot gutters through the entire growing process, from seeding to harvesting and mixing, then back to seeding in continuous 25-day cycles. The greenhouse uses integrated AI-controlled lighting, irrigation, and nutrient management to maintain an optimal, hands-free growing environment.

Patrik Borenius, CEO Americas for Green Automation, predicts major adoption of this system for eastern Canada. He says, "I think with Ontario's greenhouse experience and Québec's inexpensive power, there will be a new epicentre of lettuce growing."

Continued on page 3

Volume 75 Number 09 P.M. 40012319 $3.00 CDN @growernews

AT PRESS TIME...

$3 million pledged for washwater innovation and stewardship in the Holland Marsh

The Ontario government is investing $3 million to launch the new Farm Washwater Innovation and Stewardship Efforts (Farm WISE) Fund for farmers growing vegetables in the Holland Marsh area. As part of the province's plan to protect Ontario, this initiative supports healthy communities and a strong local agri-food economy by helping farmers adopt new and innovative technologies to protect the Lake Simcoe watershed, which is vital to the local agricultural community, residents and tourism industry.

"The Holland Marsh is Canada's most productive vegetable growing region and we're giving farmers the tools they need to keep the region's watershed a cleaner, safer place to grow food, work and raise families," said Todd McCarthy, Minister of the Environment, Conservation and Parks. "This new fund is just one of the ways our government is empowering communities to protect the air, land and water in Ontario for generations to come."

Known as Ontario's "soup and salad bowl", the Holland Marsh area produces more carrots, celery, onions, lettuce and greens than any other single region in Canada. The Farm WISE Fund was developed to help farmers adopt technologies to improve water use on farms and treat water that has been used to wash produce, which will help reduce the amount of phosphorus entering the watershed.

The ministry is currently accepting applications until October 5, 2025. Eligible growers in the Holland Marsh area can receive up to $375,000 per project to fund these improvements.

This investment is part of the ministry's commitment to reduce phosphorus and restore the ecological health of the Lake Simcoe watershed and the Great Lakes through the Lake Simcoe Protection Plan and the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health.

"On behalf of the Holland Marsh Growers Association (HMGA), we would like to thank the Ontario Government for their support and continued investment in agriculture," says Tim Horlings, chair HMGA. "With this investment, farmers will be able to upgrade and improve the tools they have to further their productivity and sustainably feed Ontario. At the end of the day, farmers are the stewards of the land, and the Ontario Government is helping them with another piece of the puzzle to achieve their goals. We would also like to thank MPP Mulroney for always being a champion for the farmers and the Holland Marsh."

Source: Ontario Ministry of the Environment, Conservation and Parks August 5, 2025 news release

Shawn Janse, manager of the Ontario Crops Research Centre – Bradford, explains integrated pest management programs and research trials to Todd McCarthy, Ontario minister of the environment, conservation and parks and Trevor Jones, Ontario minister of agriculture, food and agribusiness. To the far left is Caroline Mulroney, MPP, York-Simcoe and to the far right is Rene Van Acker, president of the University of Guelph. Photo by Matthew Higginson.

With boots on the ground, representatives of the Ontario Fruit and Vegetable Growers' Association (OFVGA) delved into current issues at the Holland Marsh event. L-R: Gordon Stock, senior policy advisor, OFVGA; Hon. Trevor Jones, minister of agriculture, food and agribusiness; Hon. Caroline Mulroney, president of treasury board; Hon. Todd McCarthy, minister of environment, conservation and parks; Jan VanderHout, environment and conservation policy committee chair, OFVGA.

NEWSMAKERS

Dr. Erik Nielsen

On August 18, **Dr. Erik Nielsen** joined Fruit and Vegetable Growers of Canada in the newly created role of director of policy, research and public affairs. He brings more than two decades of leadership experience in public policy, advocacy, and strategic communications across global development, trade, environment, and government relations. He has held senior roles at Export Development Canada, Plan International Canada, Nutrition International, and Global Affairs Canada. In his new role, Nielsen will lead FVGC's policy development and advocacy strategies, oversee research initiatives that support evidence-based decision-making, and guide engagement with government and stakeholders to advance the interests of Canada's fruit and vegetable growers.

Dr. Julie Callahan has been nominated by the U.S. president to serve as chief agriculture negotiator in the Office of the U.S. Trade Representative. She previously served as a deputy assistant U.S. trade representative and senior director in the USTR Agriculture Office, focusing on strategic engagement in UN organizations, EU, UK, Turkey, and Eastern European Sanitary and Phytosanitary Issues and agriculture-related Technical Barriers to Trade.

Sudeshna Nambiar

The BC Blueberry Council has announced that **Sudeshna Nambiar** is the new executive director, effective August 11. Most recently, she's been the chief operating officer at the Coaching Association of Canada. Nambiar brings 24 years of experience in executive leadership roles in the corporate and not-for-profit sectors, including five years as chief operating officer at greenhouse vegetable grower Lakeside Produce in Leamington, Ontario, part of the Cervini Group of Companies. Pure Hothouse Foods Inc. acquired Lakeside, adjacent to its home farm, in 2023.

Kevin Watson, representing Grape Growers of Ontario, has joined as a new director to the Canadian Grapevine Certification Network. The board consists of: **Hans Buchler**, chair (BC Wine Grape Council); **Melanie Core**, vice-chair (CVQ); **Matthias Oppenlaender**, treasurer (Grape Growers of Ontario); **Peter Jackson**, secretary (Grape Growers Association of Nova Scotia); **Mike Watson**, director (BCWGC); **Louie Thomas**, director (CVQ); **Bernie Thorne**, director (GGANS).

COVER STORY

Leafy greens: from commodity to "clean" consumer packaged goods

You have to keep on top of water chemistry to optimize yields.

~ ERIC HIGHFIELD

Continued from page 1

A case in point is Vegpro International, a producer of field vegetables in Sherrington, Québec who launched its Green Automation facility of 12.8 acres in April 2025. Respected for its field-grown lettuce under the "Attitude" brand, it's now marketing hydroponic teen-leaf lettuce under the "Folia" brand.

The Green Automation system is optimized for lettuce, herbs, and other leafy greens with short growing cycles, explains Borenius and to date, is not relevant for tomatoes and other vine crops. Looking ahead, he anticipates the seed companies will work on the potential for regrowth and have multiple cuts of leafy greens.

Global operational experts

Early on, Willmot worked closely with experts in Controlled Environment Agriculture (CEA) to achieve a cost-efficient start-up of a complex system that integrates water management, nutrition, and environmental controls into a seamless production greenhouse. Given such a small pool of available expertise in this type of CEA, it's no surprise that Willmot would bring Green Automation consultant Eric Highfield on board as Haven Greens' chief agricultural officer.

Highfield, a Master of Science graduate of the University of Arizona's CEA degree, with extensive experience working with Green Automation startups in Europe and the U.S., provided invaluable counsel as Willmot worked at turning his dream into a business.

"If this was easier, more people would do it," Highfield laughs.

To optimize the Green Automation, he points to three technical solutions critical to supporting high quality product.

First, climate control is essential. Unlike other vegetable greenhouses, hot, humid conditions are anathema for a cool-season crop such as lettuce. Mechanical cooling of water is required to maintain the peat-based soil mix at 21.5° to 22° Celsius so lettuce seeds will germinate. Haven Greens' seeds are sourced from companies such as Nunhems, Enza Zaden and Rijk Zwann which specialize in crystal-type leaf lettuce. These crispy greens are characterized by frilly, crunchy leaves with a high leaf count, and require relative humidity at between 70 and 80 per cent throughout their 25-day growth cycle.

Second, the water quality must be pristine. Haven Greens' recirculation systems are constantly monitored to guarantee there are no root pathogens present to infect seedlings, and irrigation water temperature is chilled to 18°C. Dissolved oxygen levels are regularly monitored, with leachate analysis done weekly.

"You have to keep on top of water chemistry to optimize yields," explains Highfield. "We have a kill step with ultraviolet (UV) light that disinfects water by inactivating bacteria and viruses." Adequate access to clean water is assured through several sources: an on-farm well, a stormwater retention pond, and a roof rainwater collection system.

Third, the packaging line must be fast and reliable because 100 four-ounce containers need to be filled every minute. "It's a perpetual movement machine," says Highfield. "One gutter moves every 20 seconds, so even a momentary lapse causes disruption."

At seeding, the RFID tag labeling each gutter creates a record of the time and date of seeding, the variety, the number of seeds per gutter, the seed lot, and the peat lot. "This represents unparalleled access to data," says Highfield. When the final product comes to be packaged, that RFID data is accessed and analyzed.

National aspirations

"By building the first fully automated greenhouse in the country, we're redefining how leafy greens are grown in Ontario and beyond," says Willmot. "Our AI-driven systems enhance productivity, reduce energy use, and lower emissions, setting a new standard for indoor agriculture."

Timing has been on his side. The launch follows high-profile recalls of contaminated U.S. field lettuce and increasing worries about the sustainability of transporting high-water-content lettuce from Arizona and California to central Canada. Plus, the recent 2025 U.S. trade war has inspired Canadian consumers to search for Canadian-grown produce alternatives.

Dominick Dimucci, director of cultivation, stands beside the automated seeding machine. Each seed gutter carries an RFID tag. The data consists of time and date stamp of seeding, the variety, the number of seeds per gutter, the seed lot and the peat lot. Each seed is coated with a mycorrhizial inoculant, binding the seed with its original life partners to enhance rooting.

Automated lines of leafy greens converge to be cut and packaged.

Like all good entrepreneurs, Willmot is always scouting for new insight. He recently attended a food show in California, where he engaged with competitors about the lettuce category moving forward. It has started to segment into three categories, conventional, organic, and now "clean," which is defined as no-chlorine, no-pesticide, no-hands lettuce.

Willmot points to Little Leaf Farms, with operations in Massachusetts and Pennsylvania, as a proof point for the category's growth potential. Since 2015, Little Leaf has captured 54 per cent of the "clean lettuce" target market. Recent statistics show that six per cent of all lettuce grown in the U.S. is now grown indoors.

He references their case study as "a true commodity changing into a Consumer Packaged Good (CPG) product." Retailers like CPGs due to branded packaging, convenient handling, long shelf life, and just-in-time inventory management.

Back on the farm, the bulldozers are rumbling to lay the foundation for Haven Greens 2.0, designed as a mirror image of phase one but with more area in the "production corridor." This will provide space for water management, seeding and gutter cleaning/repotting operations and packaging storage. By 2027, Haven Greens intends to be net-zero in greenhouse gas emissions by activating renewable energy infrastructure being constructed as part of the second phase.

"There is circularity in everything we do here," states Willmot.

Although still in its early stages, this eco-conscious, Ontario business is a Greenbelt story that has politicians and the public at large on the same page.

The Grower is "Digging Deeper" with Jay Willmot, CEO, Haven Greens, King City, ON. His vision for an automated greenhouse for leafy greens came to fruition in February 2025. He explains the importance of hiring globally recognized personnel and installing groundbreaking technology from Finnish company Green Automation. This podcast is sponsored by Cohort Wholesale.

CROSS COUNTRY DIGEST

CANADA

Climate change challenges researchers to keep ahead of late blight

Late blight disease is on the rise in central and western Canada. The fungal disease that causes mold symptoms on potato and tomato crops is potentially devastating when left uncontrolled in fields. However, Agriculture and Agri-Food Canada (AAFC) research scientists in Prince Edward Island and British Columbia are helping to fend off late blight with new disease identification techniques, advanced preparation, and education to home gardeners.

Evidence from late blight outbreaks around the world suggests that shifts in the genetic diversity of the pathogen could be at fault. This is because new or newly introduced genotypes of the pathogen could have increased its ability to cause a higher level of infection and increased resistance to commonly used fungicides, both of which pose challenges for disease management.

"In the last number of years, we have discovered some new strains of the late blight pathogen that affect tomatoes more than potatoes," says Dr. Rick Peters, research scientist, AAFC. "It's evolving so we've had a coordinated approach among researchers, producers, and home gardeners to stay a few steps ahead."

The existence of late blight has always been very dependent on favourable weather conditions. It thrives in cool, moist environments and is far less present when weather is hot and dry. As climates change across Canada, new areas are affected such as British Columbia, Ontario, and Québec, while others, such as Atlantic Canada, are being spared for now, explaining why some potato producers are less affected.

One way to prevent late blight is through disease forecasting and studying weather patterns – both historical and future. This data, like rainfall, temperature, and humidity, can provide producers with advance warning that future conditions might be ripe for late blight.

In various regions of Canada, the use of spore aerobiology, or spore traps, where producers can monitor the capture of late blight spores, can help prepare for a potential outbreak. Another AAFC research scientist on Prince Edward Island, Dr. Bourlaye Fofana, recently discovered that spraying selenium, a micronutrient or mineral, onto potato plants can also help prevent late blight disease

To prevent or reduce future outbreaks, you must first know what you're dealing with, which is what led Dr. Rishi Burlakoti at the Agassiz Research and Development Centre, British Columbia to undertake a study on the genetic diversity of *Phytophthora infestans* (*P. infestans*), the causal agent of late blight.

During the three-year study (2019-2021), Dr. Burlakoti and his team, with help from Dr. Peters, collected samples of tomato and potato infected with late blight from commercial fields, small farms, research plots, and community gardens in different regions of British Columbia and eastern Canada. The samples were taken back to Dr. Burlakoti's lab for identification of *P. infestans* strains using simple sequence repeat (SSR, genetic marker) genotyping – a technique that helps identify differences in genetic composition of the pathogen populations. He uncovered the first occurrence of the genotype US17 in Canada and 25 new genotypes, now known as CAC1-CAC25. Previously existing genotypes US8 and US11 were also found, with US11 accounting for about 60 per cent of the total population in British Columbia. US23 was the only genotype found among the strains collected from eastern Canada.

While many of the newly discovered genotypes came from tomato samples found in community gardens, a diverse population of *P. infestans* was found on all sites, emphasizing the need for home and commercial growers alike to keep their guard up.

Dr. Rick Peters has spent more than 25 years researching late blight in potatoes and tomatoes. Photo courtesy of Agriculture and Agri-Food Canada.

More importantly, 95 per cent of *P. infestans* strains showed resistance to metalaxyl-m, a common fungicide ingredient to control late blight of potato and tomato in Canada. This finding suggests that future research is required to identify new groups of fungicides in managing this devastating disease.

"Biovigilance on population dynamics of the late blight pathogen can help in mitigating the future challenges that could be posed by this devastating disease on potato and tomato," concludes Dr. Rishi Burlakoti, research scientist, AAFC.

Source: Agriculture and Agri-Food Canada.

BRITISH COLUMBIA

BC apple growers vote down commission

Eligible BC apple growers have firmly rejected the establishment of a commission to regulate and market their apples. The vote concluded on July 21, 2025.

129 apple growers (34.2% of eligible growers) voted.

59.7% of those who voted (77 growers) did not support the establishment of a commission

40.3% (52 growers) did support the establishment of a commission.

This vote represented the culmination of years of discussion about the pros and cons of such a commission for BC's apple industry.

Elevate Consulting, who administered the vote, will be issuing a summary report.

Source: British Columbia Fruit Growers' Association July 25, 2025 newsletter

NOVA SCOTIA

Atlantic Canada's 2025 Outstanding Young Farmers are fruit and vegetable growers

Katie Campbell and William Spurr of Spurr Brothers Farm located at Wilmot Nova Scotia, were named Atlantic's Outstanding Young Farmers for 2025. The Regional event was held July 20-21, at Luckett Winery in Wolfville Nova Scotia, with sponsors and alumni in attendance. They will go on to represent Atlantic at Canada's Outstanding Young Farmers' competition November 2025 in Toronto.

Spurr Brothers Farm is a prominent, fifth-generation family farm located in the Annapolis Valley, Nova Scotia, specifically in Melvern Square and Wilmot. The farm was established in 1875 growing apples, hay, and grains on 62 acres of land. Over the generations, the farm has expanded significantly and now encompasses roughly 800 acres of orchards and farmland, producing more than 20 varieties of apples, as well as strawberries, onions, potatoes, and forage crops.

Katie Campbell with her cousins, William Spurr and Lisa Jenereax, currently manage various aspects of the business. Katie oversees much of the business administration, including the packing house and market.

William manages potatoes, onions, carrots, cover crops, and has launched a hard cider division using farm-grown ingredients and his sister Lisa is the orchard specialist, responsible for innovations in fruit varieties and orchard management.

Spurr Brothers Farms also runs a modern farm market and taproom, offering products grown on-site as well as goods from other local producers and small businesses. The farm is well-known for its commitment to high-quality, locally grown produce and for being a long-standing advocate for Nova Scotia agriculture.

Honorable Kody Blois, Kings-Hants MP; and Nova Scotia Minister of Agriculture, Greg Morrow attended the event.

Source: Canada's Outstanding Young Farmers July 23, 2025 news release

Kody Blois (L), MP Kings-Hants, congratulates Katie Campbell and William Spurr on winning Atlantic Canada's 2025 Outstanding Young Farmers' competition.

Smart solutions for sticky problems: rethinking aphid control in Ontario greenhouses

AZIMOVE SULTHANA

As a researcher deeply invested in sustainable agriculture, I have spent the last year trying to answer one deceptively simple question: How can we control aphids more effectively without compromising the future of biological control in greenhouses?

If you are a greenhouse vegetable grower in Ontario, you already know the challenge: aphids, especially green peach aphids (*Myzus persicae*), are persistent and rapidly reproducing pests. They damage plants, transmit viruses, and often resist insecticides. But spraying more is not the answer. Instead, integrating chemical control with biological strategies offers the most promise, but only if we understand how these tools interact.

That is where my research comes in. At Agriculture and Agri-Food Canada, Harrow Research and Development Centre, I have been investigating aphid control through a project that blends fieldwork, lab trials, and greenhouse studies. My focus has been on testing four core objectives:

1. To compare multiple insecticides registered in Canada and identify significant differences in how quickly and effectively they kill aphids. This helps to inform strategic product selection and resistance rotation planning.

2. To evaluate compatibility of insecticides with biological control agents, particularly whether systemic insecticides translocate into aphid honeydew. Parasitoid wasps such as *Aphidius colemani* and Aphidius ervi rely on honeydew for nutrition and can suffer reduced survival, impaired behavior, and lowered reproduction even without direct exposure.

3. To assess the predation efficiency, survival, and reproduction of syrphid flies under greenhouse conditions. We are especially focusing on the native North American species *Toxomerus marginatus*, which shows promise as a dual-purpose agent—both as a predator of aphids and a potential pollinator. Their compatibility with existing biological control agents may expand our options within Integrated Pest Management (IPM) programs.

4. To explore genetic variation among aphid populations across Canada and assess whether such differences affect insecticide susceptibility. With plant material often sourced across borders, we need to consider whether biotypes are evolving resistance differently, making "one-size-fits-all" approaches ineffective.

Collectively, these findings point to a more informed and integrated approach to aphid control. Understanding how systemic products behave, which insecticides are biocompatible, and which predators thrive in commercial settings allows us to build more resilient IPM programs. The discovery of genetic differentiation among aphid populations only reinforces the need for localized, evidence-based strategies.

This research highlights many important takeaways for growers:

- Strategic insecticide selection matters. The mode of action can significantly influence aphid knockdown and resistance development.
- Biocontrol agents are essential allies. Indirect exposure through contaminated honeydew is real and can silently undermine biological control efforts.
- Diversifying your pest management toolbox, especially with new syrphid flies such as *Toxomerus marginatus*, can strengthen your control programs, particularly when conventional agents struggle.
- Ongoing monitoring for resistance is critical, especially when introducing plant material from different regions.

As this work continues, I am developing grower-friendly decision guides and compatibility tables to help implement these findings more easily in commercial production settings. The goal is to support greenhouse growers in maintaining effective aphid control without sacrificing the beneficial insects that keep crops clean, healthy, and market ready.

Finally, I invite greenhouse growers across Ontario and beyond to participate in this research. If you suspect resistance in your aphid populations or see unusual patterns of control failure, I can help identify resistant biotypes or alternative control strategies. You can reach me at azimove.sulthana@agr.gc.ca to share your observations or join ongoing research trials.

This project is proudly funded by BioBee, BioBest, Clean Works, Crop Defenders and Koppert with valuable support from collaborators at Vineland Research & Innovation Centre and OMAFA.

Let us work together to solve these sticky problems smartly, sustainably, and scientifically.

Her career path

KAREN DAVIDSON

Originally from India, Azimove Sulthana completed her Master's degree there, specializing in agricultural entomology She moved to Canada in early 2024 as a permanent resident. She was accepted as an Agriculture and Agri-Food Canada (AAFC) PhD student under the supervision of Dr. Roselynn Labbé. Alongside that, she was accepted into the University of Windsor PhD program, co-supervised by Dr. Sherah VanLaerhoven.

Her long-term goal is to continue as a researcher in agricultural entomology, eventually working within AAFC or a similar institution contributing to sustainable pest management solutions for Canadian agriculture.

What advice would she give to younger students deciding on a career in horticulture? "Be curious and don't be afraid to ask questions. Horticulture is a broad and evolving field with many career paths, from research and production to policy and outreach. I encourage students to get hands-on experience early through internships, volunteering, or co-op programs. That's one of the best ways to discover your interests and strengths."

She is already networking, talking to other professionals and attending industry events.

"Lastly, remember that sustainable agriculture and horticulture are more important than ever, and the work you do in this field can have a real, positive impact on the future of our food systems and environment."

GREENHOUSE GROWER

SCENE on LINKEDIN

Richard Lee · 1st
Executive Director | Leadership | Professionalism | Governance | Ac...
1w ·

Honoured to be part of the filming of, "Draw Me a Bridge", a new documentary produced by Balestra Productions in collaboration with the Windsor-Detroit Bridge Authority.

Led by acclaimed filmmaker Jean-Daniel Lafond and former Governor General of Canada Michaëlle Jean, the documentary explores the construction of the Gordie Howe International Bridge as a symbol of the deep historical, economic, and cultural connections between Windsor and Detroit.

As part of the project, we toured a local greenhouse — a cornerstone of the region's economy and a vital link in the cross-border agri-food supply chain. It was a privilege to showcase how our greenhouse sector not only feeds communities on both sides of the border but also reflects the innovation and resilience of Southwestern Ontario.

Thank you to Chris DelGreco, Jean-Daniel Lafond, the Right Honourable Michaëlle Jean, and the team at Balestra Productions for highlighting the human stories behind this monumental infrastructure project. Excited to see our region's role brought to life on screen.

Richard Lee · 1st
Executive Director - Leadership | Professionalism | Governance | Ac...
2d ·

I recently had the privilege of joining fellow members of the Ontario Greenhouse Vegetable Growers on a guided tour of the Gordie Howe International Bridge—a project that's more than just infrastructure; it's a symbol of growth, partnership, and opportunity. This six-lane, 2.5 km cable-stayed bridge—complete with a 853 m main span—is slated to become the longest cable-stayed bridge in North America and will transform how goods move between Windsor and Detroit creating smoother logistics and increased opportunities for our greenhouse growers.

A huge thank-you to the Windsor-Detroit Bridge Authority team for hosting us. It's inspiring to see how infrastructure like this bridges communities, industries, and economies—and what it could mean for agricultural trade.
I look forward to seeing this project come to life in fall 2025.
#Infrastructure #Trade #GreenhouseGrowers #BridgingBorders #GordieHowe

The official opening of the Gordie Howe International Bridge is eagerly anticipated in fall 2025. Financed by Canada, the $6.4 billion structure replaces a single, privately owned bridge across the Detroit River, guaranteeing unfettered movement of goods from Ontario to Michigan and vice versa. All tolls will be collected by Canada until the bridge is paid off. Toll prices have yet to be announced.

The ambitious project dates back 25 years, when the cross-border traffic study was initiated in 2000-2001. Environmental studies followed from 2005-2008. A Presidential Permit was issued in 2013, followed by the U.S. Coast Guard Permit in 2014. The bridge naming took place in 2015. The procurement process alone took three years, from 2015 to 2018. Construction started in 2020.

With the 2.5 kilometre bridge now nearly complete, industry is waiting for the Canada Border Services Agency to take control of security facilities.
For a drone view, watch this YouTube video: youtu.be/utz8hQZrhhI

GREENHOUSE GROWER

Insect Science becomes Koppert's preferred supplier for semiochemicals

Koppert has announced a strategic partnership with Insect Science, naming the company as its preferred supplier of semiochemical solutions. This collaboration marks a significant step forward in the development of sustainable pest management tools for farmers worldwide. The agreement was signed on 19 June 2025 in the Netherlands by Martin Koppert, chief business officer at Koppert, and Martin van Niekerk, technical and commercial director at Insect Science, representing a shared commitment to accelerate innovation in sustainable agriculture.

Insect Science is a pioneer in the development of semiochemical solutions: naturally occurring signaling compounds that insects use to communicate. By mimicking these chemical signals, it becomes possible to influence insect behavior in targeted ways, such as attracting pests into traps (monitoring and mass trapping) or disrupting mating life cycles (mating disruption). Insect Science's strength lies in its dedicated R&D team, which combines deep expertise in applied entomology, chemical ecology and chemical synthesis to identify, recreate, and formulate these compounds for use in the field. Each solution is rigorously tested under real-world conditions to ensure reliability and effectiveness. Unlike conventional chemical pesticides, semiochemical solutions work with nature, offering high selectivity, low environmental impact, and compatibility with biological control programs, making them essential tools in Responsible Pest Management.

The agreement follows more than a year of close collaboration between the two companies. What began with a Memorandum of Understanding (MoU) evolved into joint research and business development efforts, and has now resulted in a formal Memorandum of Agreement (MoA). Initial focus of the collaboration will be on Southern Europe and MEA (Middle East and Africa), and from there more global opportunities will be explored. Koppert will source its semiochemical range, including monitoring lures, advanced mating disruption, mass trapping, and attract-and-kill solutions, from Insect Science as preferred partner.

Source: Koppert August 6, 2025 news release

What's lighting up the 2025 Canadian Greenhouse Conference

KAREN DAVIDSON

"Harvesting Resilience" is the apt title for this year's Canadian Greenhouse Conference (CGC), reflecting the sector's determined response to evolving challenges. As growers navigate climate pressures, and supply chain disruptions, the CGC will spotlight the innovative strategies and cutting-edge technologies that are shaping a more resilient future. It's been a fast-paced year of trials, adaptation, and adoption—making this year's conference more relevant than ever.

Registration is now open for the 2025 edition to be held at the Niagara Falls Convention Centre in Niagara Falls, Ontario. The event itself will take place October 8 and 9, 9 am-4 pm. Early bird registration closes October 6. Pre-registration is required for the October 7 pre-event bus tour that will visit Niagara region greenhouses, both floral and vegetable.

"The trade show floor is sold out," says Carol Pupo, executive coordinator for the last 15 years. More than 200 exhibitors will attend.

The New Variety Showcase and the Poster Session are destinations in themselves. But most attendees will personalize their itineraries from the speakers' schedule. Both local and international experts will be on hand.

Wednesday's agenda includes topics such as Vegetable Production, UV for You and Me, Wired to Grow AI & Big Data, Dynamic Lighting for Dynamic Greenhouses, Smart Sprays and Safe Plays, Waste Management.

Thursday's agenda includes topics such as Harnessing Energy: Capturing and Reusing Excess Heat, IPM and Back to Basics, Vertical Gains for Vertical Farms, Innovation in Action from Concept to Crop, Berry Smart and Research Updates.

A block of rooms has been reserved at the Marriott on the Falls at the preferential rate of $229 per room. This offer closes on September 8, 2025.

For the digital brochure, link here: www.canadiangreenhouseconference.com

APPLES GALORE

USApple 2025 crop estimate up 1.3 per cent from last year at 279 million bushels

Gala remains the most popular variety. Washington State remains the largest grower

After two straight years of above-average production, apple growers expect another high-performing year, according to a new report released by the U.S. Apple Association (USApple) at the organization's 130th annual Outlook Conference on August 15 in Chicago

Authored by USApple vice president of insights and analytics, Chris Gerlach, Industry Outlook 2025* provides the most up-to-date data and analysis on U.S. and global apple production, utilization and trade.

** The Outlook Report features the United States Department of Agriculture (USDA) estimates. Following the presentation of these figures, USApple members met in person to discuss current growing conditions and develop a more up-to-date production forecast – the numbers below reflect that adjustment.*

U.S. production

According to USApple's analysis, total U.S. apple production for the 2025/26 crop year (CY) is forecast at:

- 11.7 billion pounds / 278.5 million bushels
- Up 1.3% from last year
- 3.6% above the five-year production average

These figures are more comprehensive than the USDA data, which only reflect the top seven apple-producing states. USApple analyzes production from states outside of the top seven and adds that into USDA's figure. It also incorporates feedback from growers based on what they're seeing in the field every day.

"The U.S. grows the best apples in the world, and this year we will certainly have plenty for domestic and global consumption," said Gerlach. "That said, growers carefully select what comes off the tree to ensure only the highest quality fruit makes it to the store. And with skyrocketing labour costs, growers are having to be even more disciplined in their harvest decisions."

Varietal mix

At the varietal level, Gala is expected to retain the top spot with nearly 47 million bushels, accounting for 16 per cent of the market. The top five:

- Gala – 47 million bushels (16% of U.S. production)
- Red Delicious – 39 million bushels (13%)
- Honeycrisp – 34 million bushels (12%)
- Granny Smith – 32 million bushels (11%)
- Fuji – 25 million bushels (9%)

Varieties on the rise include Honeycrisp, Granny Smith, Cosmic Crisp® and Pink Lady/Cripps Pink. Gala, Fuji and Rome are trending down.

Trade

While fresh apple exports declined 5 per cent year over year, the U.S. maintained a strong trade balance in 2024/25 (July–June):

- Exports: 44M bushels
- Imports: <5M bushels
- Net exports: ~40M bushels valued at $900 million

"With another large crop on the way, maintaining and expanding exports is essential," said Gerlach. "We're exploring all avenues to strengthen our presence in established markets like Taiwan, Thailand, and India, while pushing to open new high-value markets such as South Korea and Japan."

State production

At the state level:

- Washington remains the nation's top producer with a forecasted record crop of more than 180 million bushels valued at nearly $2.3 billion, up 1% from 2024/25.
- New York holds the No. 2 spot at 30.5 million bushels, a 0.7% decrease from last season.
- Michigan up 10% to about 30 million bushels.
- Pennsylvania up 2% at 10.5 million bushels.
- Virginia down 50% to 2.75 million bushels.
- Oregon up 40% to 3.9 million bushels.

Global context

According to United Nations (UN) data, worldwide apple production is more than five billion bushels. In 2023 (latest data point), China alone was responsible for producing 51 per cent of the world's total supply, with the U.S. producing the second-largest share of the global crop.

- China – 2.6 billion bushels (51% of global supply)
- United States – 5.3% of global supply
- Turkey – 4.7%
- Poland – 4%
- India – 3%

"With China down 100 million bushels and Turkey's crop off by 40 per cent, the U.S. has a real opportunity," said Gerlach. "Given Turkey's role as a major supplier to India, this could open the door for us to regain market share there."

For the complete data and analysis, please read the full Outlook Report.

Source: USApple August 15, 2025 news release

Final USApple Production Forecast:

	USApple
	2025/26 (F)
United States	**278,520,540**
California	3,809,524
Michigan	30,000,000
New York	30,500,000
Oregon	3,928,571
Pennsylvania	10,500,000
Virginia	2,750,000
Washington	180,000,000
Other States	*17,032,445*

Production levels measured in 42-pound bushels

Estimates are up 3 per cent for Canadian apple production in 2025

Table 14: Canadian Apple Production, by Province

	2025/26 (F)	2024/25	5-YR. AVERAGE
LEVELS			
Canada	**21,571,913**	**20,952,694**	**19,856,116**
Ontario	8,959,000	8,480,000	8,149,000
Quebec	6,067,222	6,232,380	5,400,675
British Columbia	3,832,500	3,769,050	3,939,608
Nova Scotia	2,474,191	2,249,264	2,167,294
New Brunswick	239,000	222,000	199,540
PERCENT CHANGE (VS. 2024/25)			
Canada		**3%**	**9%**
Ontario		6%	10%
Quebec		-3%	12%
British Columbia		2%	-3%
Nova Scotia		10%	14%
New Brunswick		8%	20%
MARKET SHARE			
Canada	**100%**	**100%**	**100%**
Ontario	42%	40%	41%
Quebec	28%	30%	27%
British Columbia	18%	18%	20%
Nova Scotia	11%	11%	11%
New Brunswick	1%	1%	1%

Source: Fruit & Vegetable Growers of Canada
Notes: Production levels are reported in 42-pound bushels.
Five-year averages do not include 2025/26 (F) data.

Table 15: Canadian Apple Production, by Variety, by Province

2025/26 (F)	CANADA	BRITISH COLUMBIA	NEW BRUNSWICK	NOVA SCOTIA	ONTARIO	QUEBEC
Total Varieties	**21,580,929**	**3,832,500**	**239,000**	**2,482,296**	**8,960,000**	**6,067,133**
Gala	4,307,108	1,680,000	25,000	124,046	2,279,000	199,062
Others	3,314,054	162,500	19,000	534,589	1,561,000	1,036,965
McIntosh	3,308,808	110,000	52,000	198,668	858,000	2,090,140
Honeycrisp	3,033,303	200,000	90,000	1,066,364	1,479,000	197,939
Ambrosia	3,001,542	1,500,000	13,000	141,029	1,255,000	92,513
Cortland	1,444,315	-	35,000	106,015	236,000	1,067,300
Red Delicious	1,402,170	35,000	-	64,193	502,000	800,977
Empire	1,013,082	-	3,000	10,845	417,000	582,237
Spy	601,950	-	-	228,950	373,000	-
Spartan	154,597	145,000	2,000	7,597	-	-

Source: Fruit & Vegetable Growers of Canada
Note: Production levels are reported in 42-pound bushels.

According to the Fruit and Vegetable Growers of Canada, Canadian production will increase to 22 million bushels – a three per cent gain from 2024/25 levels (see Table 14). This represents an eight per cent increase from the five-year production average.

Ontario, the nation's largest apple-growing province, is expected to produce slightly more than last season with nine million bushels. Québec's production is estimated to decrease by three per cent to six million bushels. Nova Scotia is projected to increase by 10 per cent to 2.5 million bushels. British Columbia is expected to be up two per cent from last season to almost four million bushels.

On a varietal basis, Gala is the number one apple grown in Canada with an expected 2025/26 production volume of more than four million bushels, around 20 per cent of total production. Rounding out the top five are McIntosh, Honeycrisp, Ambrosia, and Others. (See Table 15).

Source: Fruit & Vegetable Growers of Canada.

CHAIR'S & SENIOR POLICY AND GOVERNMENT RELATIONS ADVISOR PERSPECTIVE

OFVGA advocacy behind the scenes and on the front lines

SHAWN BRENN

GORDON STOCK

As we leave summer behind us, September means full-blown harvest mode for most fruit and vegetable growers. The last few months have been busy on our farms, and in our orchards, vineyards and greenhouses – and although we've been busy farming, the Ontario Fruit and Vegetable Growers' Association (OFVGA) has also been active on the advocacy front.

Some issues in our sector are big and attention-getting — such as protecting the Seasonal Agricultural Worker Program or pushing back on costly trade barriers — because they have such far-reaching and dramatic impacts on our businesses. Others aren't as directly significant, but they still affect our ability to farm successfully. That's why our advocacy is multi-faceted and as board and staff, we're involved in continuous and often behind-the-scenes work to keep decision-makers aware of our sector's needs.

We came through both a provincial and a federal election this year and we've been busy connecting with new ministers to ensure they and their teams know our sector and what our needs are. That includes attending special events such as funding announcements where we have unique opportunities to speak face to face with ministers and MPPs outside of an office or meeting room. These are in addition to our regular advocacy events, such as our Queen's Park Day every fall, where we engage broadly with MPPs and their staff from all major parties.

A major opportunity for government relations comes every summer in the form of preparation for the meetings of federal-provincial-territorial (FPT) ministers of agriculture. This year, the event was set for Winnipeg in July but moved online at the last minute due to forest fires in Manitoba. An in-person gathering has been rescheduled for September.

To help Ontario's minister of agriculture, food and agri-business, Trevor Jones, prepare for the meetings, we provided a detailed written submission of our sector's needs on safety nets and crop protection, attended an industry round table to provide input, and met with the Minister to discuss our priorities.

We highlighted our business risk management (BRM)-related asks, which include enhancements to the Agri-Stability program, and a more permanent increase to the interest-free portion of the Advance Payments Program loans for growers.

We also continue to push to restore the capacity and output of the federal Minor Use Program (MUP). This is a crucial initiative of the Pest Management Centre (PMC) designed to address the unique pest management needs of farmers who grow minor crops, such as most fruits and vegetables. Annually, growers of minor use crops can prioritize pest and disease problems they would like MUP to research, but federal funding hasn't kept up with need, resulting in fewer projects funded each year.

The OFVGA team also works on a wide range of other issues. Here are a few highlights.

Environment and Conservation: Environmental Compliance Approvals have been an ongoing issue with the Ministry of Environment, Conservation and Parks for several years and progress towards resolution has been frustratingly slow. In August, however, while attending a funding announcement in the Holland Marsh, we were able to spend some time discussing the issue with Minister of Agriculture, Food and Agribusiness Trevor Jones, Minister of Environment, Conservation and Parks Todd McCarthy and local MPP and Treasury Board President Caroline Mulroney.

We've also responded to the provincial government's consultation on challenges in the modernized Blue Box program and the federal government's consultation on implementing a federal plastics registry to make sure our concerns about increased costs for growers without meaningful environmental benefit are brought to light.

SPUD Unit: A study to help develop a plan for the future of the SPUD (Superior Plant Upgrading and Distribution) Unit in New Liskeard is expected to get underway in late summer/early fall. OFVGA has been actively engaged in renewal efforts for this facility with OMAFA and University of Guelph for more than two years.

The SPUD Unit supports farmers and the wider agriculture and food industry by offering testing for plant diseases and providing a stock of healthy plants to commercial growers of crops such as potatoes, raspberries, strawberries, garlic and asparagus across the province.

Foodland Ontario: OFVGA continues to encourage OMAFA to focus on renewal of the Foodland Ontario program so that it can meet the needs of growers while engaging Ontarians in ways that will help raise awareness of the size, scope and strength of Ontario agriculture and what it means to the provincial economy.

We work with a wide range of partners provincially and nationally to help our advocacy in support of grower needs. After all, there is strength in collaboration, but even with partners, there's no denying that progress can sometimes be much slower than we would like. OFVGA remains committed, however, to continuing to move issues forward and taking every opportunity for discussion, meeting and networking – it all contributes to the long-term success and sustainability of our sector.

Shawn Brenn is a potato grower and chair, Ontario Fruit & Vegetable Growers' Association (OFVGA). Gordon Stock is senior policy and government relations advisor, OFVGA.

WEATHER VANE

Harvest is well underway in Ontario's Holland Marsh. Here, onions are topped and allowed to dry naturally in the field. This curing process helps toughen the outer layers, sealing in freshness and extending shelf life. Photo courtesy of Gwillimdale Farms.

STAFF
Publisher: Ontario Fruit and Vegetable Growers' Association
Editor: Karen Davidson, 416-557-6413, editor@thegrower.org
Advertising: Carlie Melara 519-763-8728, advertising@thegrower.org

The Grower reserves the right to refuse any advertising. Any errors that are the direct result of **The Grower** will be compensated at our discretion with a correction notice in the next issue. No compensation will be given after the first running of the ad. Client signature is required before insertion.

The Ontario Fruit and Vegetable Growers' Association is the sole owner of **The Grower**. All editorials and opinions expressed in **The Grower** are those of the newspaper's editorial staff and/or contributor, and do not necessarily reflect the view of the association.

OFFICE
355 Elmira Road North, Unit 105
Guelph, Ontario N1K 1S5 CANADA
Tel. 519-763-8728 • Fax 519-763-6604

The Grower is printed 12 times a year and sent to all members of the Ontario Fruit and Vegetable Growers' Association who have paid $30.00 (plus G.S.T.) per year for the paper through their commodity group or container fees. Others may subscribe as follows by writing to the office:

$30.00 (+ HST) /year in Canada
$40.00/year International

Subscribers must submit a claim for missing issues within four months. If the issue is claimed within four months, but not available, **The Grower** will extend the subscription by one month. No refunds on subscriptions.

P.M. 40012319

THE GROWER

URBAN COWBOY

How quality fuels one of the top agri-food marketers

OWEN ROBERTS

Whenever Canada's agri-food sector squares up to optimize its competitive advantage for exports, quality almost always comes first. Quality, rather than quantity or price, helps us compete alongside some of the world's most successfully branded agri-food sectors.

And when it comes to quality, among the best of them is Ireland.

At just over 84,000 square kilometres, the Green Isle is only about one-tenth bigger than New Brunswick. Size-wise, that hardly makes a dent in global statistics.

But when it comes to food exports, Ireland is a worldwide superstar. Irish food – particularly beef, butter, cheese, alcohol and snacks (especially potato chips) is magnificently marketed. It's everywhere, and renowned for quality by brand names such as Kerrygold, Guiness, Bailey's and Taytos.

"We punch above our weight," says David Markey, former publisher of Dublin-based IFP Media, one of the country's leading agriculture and trade media houses. "That's always been the mantra of Ireland."

The country's agri-food marketing success stems from the entire supply chain buying into that feisty mantra. Origin Green, Ireland's national food and drink sustainability program, unites government, the private sector (more than 300 leading food and drink companies), 77,000 producers (including 70 per cent of the country's horticulture growers), and scores of food service and retail. The program – which claims to be unique in the world -- enables the agri-food industry to set and achieve measurable sustainability targets. On-farm assurance assessments are administered by Bord Bia, the Irish food board.

So even when specific sectors hit a snag, like they did in 2013 when unscrupulous suppliers there switched beef for horsemeat, Ireland's reputation ultimately emerged intact.

The system is working very well. Last year, despite worldwide economic turmoil, the value of Irish food, drink and horticulture (particularly mushrooms) exports grew by five per cent to a record 17 billion Euros. Minister for agriculture, food and the marine, Charlie McConalogue, was understandably chuffed.

"Our food companies, our farmers, fishers, and food and drink producers have, at each stage of the production cycle, contributed to the agri-food sector's performance in 2024," he said. "I know they will continue to do so in the future, underpinned by the strategic insight, marketing and promotion support provided by Bord Bia."

Dublin-based Bord Bia is key to the country's marketing success. Fueled by an annual budget of nearly 60 million Euros, Bord Bia is mandated to support the national and international ambitions of Irish food, drink and horticulture. Bord Bia was established in 1994 by the Irish parliament, bringing together the Irish Meat and Livestock Board and food promotion activities of the Irish Trade Board. In 2004, responsibility for developing the Irish horticulture industry was added to its mandate, followed by seafood in 2009.

University of Illinois students analyzing Irish ag media at Agrilan.

As part of its domestic program, Bord Bia sponsors a huge five-day consumer-facing gardening festival in Dublin called Bord Bia Bloom, which drew 100,000 visitors this past June. Along with 13 of my agricultural communications students from the University of Illinois, enrolled in a 10-day study abroad program to Ireland to learn about the country's agri-food marketing prowess, we were among this year's crowd, guests of the organizers.

Earlier in the week we'd visited Irish farms that were part of Bord Bia's assurance program. Participants we met were not necessarily pro-government. But they were united in understanding the need for quality and for explaining the agri-food to visitors like us. So were our hosts, the University College Dublin's agriculture college, Agriland (one of Ireland's leading agricultural media) and multinational animal health company Alltech, which has Irish roots and markets as well as any company on the planet.

Yet in Ireland, like every other country, communicating about agri-food is a job that's never finished. Despite Ireland's relatively small size, our hosts told a familiar tale about food production being a mystery to more and more people. But everyone understands quality, and if that's your sector's foundation, you already have their attention.

Owen Roberts is a Guelph-based agricultural journalist and a past-president of the International Federation of Agricultural Journalists.

BITS AND BITES

$82 million targeted to irrigation and wastewater services in Niagara and Leamington

The Ontario government is investing $135 million in water systems and irrigation infrastructure in Niagara Region and the Municipality of Leamington to help build more homes, protect farmland and keep workers on the job. The announcement was made August 11 by Kinga Surma, minister of infrastructure.

Niagara Region will receive approximately $94 million, which includes approximately $53 million for six water systems projects to help unlock up to 14,000 new homes through the Municipal Housing Infrastructure Program's (MHIP) Housing-Enabling Water Systems Fund (HEWSF) stream, and another $41 million for irrigation pipelines to help deliver water to hundreds of farms and agricultural businesses.

Leamington will receive $41 million to help protect thousands of acres of greenhouse operations with improved wastewater treatment services, supporting domestic food production.

The two agriculture projects in Niagara Region and Leamington will help improve crop yield, quality, and drought resilience by ensuring a consistent water supply that will particularly benefit high-value fruit and vegetable crops such as peaches for Niagara, as well as enhance water quality in Leamington through the collection of nutrient-heavy wastewater from the greenhouse operations.

"This investment is a clear example of our government's plan to protect Ontario's economy by supporting the people and sectors that drive it," said Trevor Jones, Minister of Agriculture, Food and Agribusiness. "By funding critical infrastructure like the Niagara irrigation and Leamington wastewater projects, we're strengthening local economies, safeguarding food security, and making sure Ontario farmers have the tools they need to grow, compete, and succeed, now and for the future."

Leamington is home to one the largest greenhouse hubs in North America and Niagara Region is where the majority of Ontario's tender fruit and grape crops are grown.

Source: Ontario Ministry of Infrastructure August 11, 2025 news release

BITS & BITES

SCENE on LINKEDIN

MENTAL HEALTH RESOURCES

AgTalk renewed

The Do More Agriculture Foundation has renewed AgTalk, Canada's premier online peer-to-peer support community for the agricultural sector.

AgTalk is a specialty agricultural community within the powerful online site Togetherall. On Togetherall, individuals 16+ can anonymously and safely connect, share, and receive support from a community of peers who also understand the pressures of farming, and the pressures of staying mentally well. Backed by 24/7 clinical moderation, hundreds of people have found strength within AgTalk since its inception in 2023.

One said, "I like that this is a place where I can express myself without judgement."

Recognizing the challenges across agriculture when it comes to mental health, BASF Agricultural Solutions Canada Inc, RBC Foundation, and The McCain Foundation are once again partnering with Do More Ag for AgTalk.

"The renewal of AgTalk marks a powerful step forward in creating accessible mental health supports in agriculture," said Sartaj Sarkaria, chair of The Do More Agriculture Foundation.

"We know that mental health can be hard to talk about, especially in rural and agricultural communities. That's why we're committed to supporting AgTalk—because connection saves lives. By continuing to invest in safe, anonymous, peer-driven spaces like this, we're sending a clear message: no one in agriculture has to struggle alone."

"At RBC, we recognize that the well-being of our agricultural producers is just as important as the work they do to feed our country," said Lorna McKercher, national director agriculture, RBC. "Mental health challenges can be isolating, especially in rural and remote areas where farmers and producers may not have access to in-person services."

With more than 10,000 interactions since its launch, AgTalk is a key resource. More than 60 per cent of AgTalk users are not receiving any formal mental health support, and one third of users access no mental health support at all outside AgTalk. Many people who turn to AgTalk are at risk: fully one in three AgTalk users had considered suicide and more than 10 per cent had made an attempt to end their life. The top five issues for AgTalk users are stress, depression, anxiety, loneliness, and relationships. AgTalk users come from right across Canada, right across ages, gender, and ethnic backgrounds. There is no doubt: AgTalk is meeting critical mental health needs and is making a difference.

For more details, please visit www.domore.ag.

COMING EVENTS 2025

Sept 3	High Tunnel Berry Grower Day, EZ Grow Farms, Langton, ON
Sept 4	Berry Growers of Ontario Twilight Meeting, Howe Family Farms, Aylmer, ON
Sept 7-9	Federal-provincial-territorial agriculture ministers' meeting, Winnipeg, MB
Sept 9-11	Canada's Outdoor Farm Show, Woodstock, ON
Sept 16-20	International Plowing Match & Rural Expo, West Niagara Fairgrounds, Grassie, ON
Sept 17	Grape Growers of Ontario 40th Celebrity Luncheon, Club Roma, St. Catharines, ON
Sept 24	Ontario Produce Marketing Association Golf Tournament, Lionhead Golf and Country Club, Brampton, ON
Sept 30-Oct 2	Fruit Attraction, Madrid, Spain
Oct 8-9	Canadian Greenhouse Conference, Niagara Falls, ON
Oct 16-18	Global Produce & Floral Show, Anaheim, CA
Oct 21-23	FIRA 4th edition of ag robotics and autonomous solutions, Woodland/Sacramento, CA
Oct 24	Ontario Pest Management Conference, Royal Botanical Gardens, Burlington, ON
Oct 28-29	Canadian Centre for Food Integrity Public Trust Symposium, Westin Toronto Airport Hotel, Toronto, ON
Nov 7-16	Royal Agricultural Winter Fair, Toronto, ON
Nov 9-15	Agritechnica, Hanover, Germany
Nov 18-20	Potato Growers of Alberta Annual General Meeting, Red Deer, AB
Nov 23-25	Advancing Women Conference East, Sheraton Fallsview, Niagara Falls, ON
Nov 27	Farm & Food Care Ontario Harvest Gala, Delta Hotel, Guelph, ON
Nov 27-29	Ontario Beekeepers' Association Annual General Meeting, Delta Hotel, Guelph, ON
Nov 27-30	Outstanding Young Farmers National Event, Toronto, ON
Dec 3	CanAgPlus Annual General Meeting, Westin Hotel, Calgary, AB
Dec 3	Ontario Potato Board Annual General Meeting, Delta Guelph Hotel & Conference Centre, Guelph, ON
Dec 9-11	Great Lakes Fruit, Vegetable and Farm Market Expo, Grand Rapids, MI
2026	
Jan 6-8	Potato Expo, Dallas, Texas
Jan 28-30	Manitoba Potato Production Days, Brandon, MB
Feb 4-6	Fruit Logistica, Berlin, Germany
Feb 8-11	International Fruit Tree Association Annual General Meeting, Fresco, CA
Feb 10	Future of Food Conference, Rogers Centre, Ottawa, ON

RETAIL NAVIGATOR

How to participate in local grower programs

PETER CHAPMAN

As harvest season peaks across Canada, most retailers are eager to profile their partnerships with local growers by profiling them in point of sale (POS) material. During the growing season, flyers also include photos and thumbprint information about the growers.

Retailers create these local grower programs to assure consumers how their food is produced and to get credit for their farmer relationships.

If your business is a supplier to any retailer with a local grower program, you need to be prepared to participate. Your customer is depending on you to be a part of their consumer marketing.

We also have to be honest: some retailers try to generate money with these programs too. They charge fees to participate. Usually, these fees are proportionate to the size of the supplier. In other words, the large national suppliers pay more than regional suppliers. It can be frustrating to 'pay to play', but there is a cost to the POS and advertising space they devote to local grower programs. The fees paid in produce are a fraction of the fees paid by the consumer-packaged goods companies for the same exposure in the flyer.

Your customers, the retailers, expect you to participate in these programs and reinforce their support of local growers. You should expect them to ask and be ready with an answer. You can always negotiate if you believe there is an opportunity.

Communicate with the right people

The request to participate in the program will come from the category manager or merchandising group. These people own the relationship with suppliers. One challenge is that they usually know very little about the details required from suppliers. You should negotiate the fees and any in-store space or ads you want to include with them. Once the deal is done, you need to communicate with other people in their organization.

People who work in marketing and advertising are responsible for creating POS and flyers. They understand the details, timelines and file formats required. Ask your category person for the contact in this part of their business. You have a much better chance of everything appearing as it should, when you communicate with the right people.

Make it easy for them

When I was working in retail one of the biggest challenges was to get a decent photo from suppliers. Certainly, technology has changed and the quality you can achieve with a smart phone is probably acceptable. Determine the correct file size and what they are expecting. Do they want you to focus on the people or perhaps more on the field or orchard trees or greenhouse?

Consider the image you want in the store or the flyer for your business. Working in agriculture is not a suit-and-tie job, but you also want to present a clean, professional image. Consumers want to have confidence in the people producing their food. I can remember receiving one photo from a grower wearing coveralls and it looked like he had just crawled out from under a tractor. They might have, but we needed a better photo.

Create a numbering system for your photos. You can use the name of your business and a year and a letter. For example, the first photo you share in 2025 is ABCFarm2025A. Include a good description with each photo. You want the names of any individuals to be clear. Focus on two brief points per photo that reinforce the positioning of your business. Include information such as how many generations of farmers, sustainability initiatives or new variety trials. They might not use it all but give them some content to work with.

Transferring files can be a challenge, especially if they are large. Use a common resource

such as Google Drive to keep it simple. Get familiar with the technology prior to the deadline to submit the photos. The people working at the retailer have deadlines to meet to get POS printed or flyers completed. It is very frustrating for them to wait for a photo that should have been sent and confirmed prior to the deadline.

Be prepared with some content about your business

There is more interest in Canadian suppliers than ever. Take the time to write some copy for your customers that can be used in flyers or other applications such as social media. Keep the writing brief and consumer focused. Don't assume that consumers understand practices such as integrated pest management or other industry terms.

Explain some of your growing strategies and the benefits to the end user. You might have changed all the lights in your greenhouse to provide 12- month supply of Canadian product. This is copy being written for consumers, not retailers. When you create copy, it is advisable to write a short version and a longer version. The retailers' marketing folks can always cut and paste your own words – a better situation than if they're writing their own. They do not understand your business.

Remember, this an opportunity to promote your business. You never know who might see it. If you share some work on sustainability initiatives, you might pique the interest of a young student interested in a career in agriculture. Thousands of people read the flyers and shop in the stores every week.

Offer to proofread the page

There is always a final sign-off process before printing. If you can get a quick look, ensure the copy is correct. This is not the time to revise copy you sent or update the photo. All of that should have been accurate and up-to-date in the initial stages. Double-check that they do not have another farm name or brand with your picture. Believe me, it happens every year.

Participate in the conversation online and in store

Many retailers are using social media to reinforce their position with consumers. Become part of the conversation if they are including your business. When you comment and share their posts, retailers appreciate the exposure and it all helps to build trust with consumers and your customers.

The store is where the consumer makes the decision to buy. Retailers want stores to be entertaining and engaging. Demos with local growers are often part of these programs. They are a challenge because you are busy, and they always want you there when you are busiest. If possible, find some people who can represent your business. They should have some basic knowledge and be personable. You could investigate to see if there is financial support to promote agriculture and perhaps a program with local agriculture students. You can also work with other farms in close proximity so you sample some of their products and the next week they include yours to spread the hours around. You might not sell more, but it should have a positive impact on your relationship with your customers.

When you're not in full production, work on refreshing your story and recipes. Local grower programs not only educate consumers, but they build relationships between retailers and suppliers.

Peter Chapman is a retail consultant, professional speaker and the author of A la Cart-a suppliers' guide to retailer's priorities. Peter is based in Halifax, N.S. where he is the principal at SKUFood. Peter works with producers and processors to help them get their products on the shelf and into the shopping cart.

FOCUS: GREENHOUSE INNOVATION

Using light to fight crop disease in controlled environment agriculture

GENEVIÈVE MARCHAND

Modern agricultural production systems include growing plants in greenhouses or other enclosed environments, often referred to as controlled environment agriculture (CEA). In greenhouse systems, artificial lighting has historically allowed the supplementation of natural light to allow for longer photoperiods (daily duration of light) and the extension of the growing season. The recent availability of new lighting technologies, such as light emitting diodes (LEDs) has revolutionized CEA and opened up opportunities to boost plant productivity and lower operating costs.

LEDs offer an extensive range of different light wavelength ranges (spectra) that were never previously accessible to growers, with previous lighting technologies (high pressure sodium (HPS), vacuum tube lights). They also offer the opportunity for the dynamic (real-time) control of modern light fixtures, in response to changing parameters such as background light intensity. But the CEA ecosystem is complex. Changes to any environmental parameter, including light photoperiod and spectrum, will impact crop plants but also their arthropod pests and microbial disease-causing agents, as well as beneficial organisms. This can have unintended negative consequences, in a worst-case scenario. But this situation also affords opportunities to manipulate the environment to the grower's advantage, as long as we understand the impacts. Let's go back to the basics!

From a scientific perspective, light is electromagnetic radiation, and it is measured in wavelengths. Roughly 400-700 nanometers (billionths of a meter!) encompasses the visible spectrum that humans can perceive with our eyes. Below that is the ultraviolet range (100-400 nanometers), and above is the infrared range (700 to 1,000 nanometers). Without getting overly technical, plants are autotrophs and use light from the sun or artificial sources, to provide energy for photosynthesis, the chemical process through which they convert carbon dioxide from the air into complex sugars and biomass. This is the basis of the carbon cycle.

Plants, animals (including arthropods), and microorganisms perceive and respond to light level, spectral quality, and duration (photoperiod) in different ways. For example, photoperiod can determine the flowering of some higher plants and sporulation of numerous fungal species; many arthropods can see in the ultraviolet range, invisible to our eyes, and respond to visual signals that we cannot perceive with our eyes. Exposure to some types of light can also be harmful: we are all familiar with the negative impacts resulting from exposure of our skin and eyes to naturally occurring ultraviolet wavelengths from sunlight. But it is also germicidal and helps control populations of some microorganisms exposed to it.

In plant pathology, the disease triangle is a key basic concept: it can be summed up as plant disease results from the interaction between a susceptible host, virulent pathogen, and a conducive environment. But how does this translate to lighting in CEA?

Some key questions and considerations include:

Pathogen (microorganism): Do specific light wavelengths have the potential to directly impact pathogen populations? If reducing the amount of pathogens present, this will result in lower disease pressure on the crop. Systems relying on ultraviolet wavelengths are already available commercially, for surface disinfection in medical and institutional settings. The efficacy of similar systems has been demonstrated experimentally in the field to control plant disease, and commercial systems are currently available for use in CEA. Some barriers remain to their adoption, including cost and automation.
Host (plant): Are new lighting spectra and photoperiods impacting crop health, making crops more or less susceptible to disease? Exposing plants to specific wavelengths can induce their defense responses, including to pathogens. Experimental work continues to figure out the optimal approach – boosting plant defenses vs directly targeting microbial pathogens, or a combination.
Environment: Are new lighting technologies modifying the crop climate and microclimate, thus influencing disease development? Heat released by lighting fixtures is an important consideration in CEA. Older technologies such as HPS were inefficient at converting electricity to light and as a result, emitted a lot of waste heat that could benefit the crop, during colder months when CEA environments have to be heated. Switching to more efficient light technologies such as LEDs creates a higher heating demand from other sources. How does this influence the crop microclimate, plant health and disease development?

The bigger question is really how can we tease these complex interactions apart? It is yet early days of crop lighting research, in the grand scheme of things. Figuring out the best practices for crop productivity as well as the impacts on microorganisms and arthropods that may be crop allies or enemies remains a moving target as technology, practices, and policies are constantly evolving.

Editor's note: Dr. Marchand will give a presentation titled "Use the Force, Luke: Wielding the Jedi lightsaber in controlled environment agriculture" at the Canadian Greenhouse Conference as part of the "UV for You and Me" session on Wednesday October 8th, 2025 at 9:30 am. Her presentation will showcase results from a few recent research projects, to illustrate these challenges and opportunities.

Dr. Geneviève Marchand is a research scientist at the Harrow Research and Development Centre, Agriculture and Agri-Food Canada.

FOCUS: GREENHOUSE INNOVATION

Improved lettuce yields are the target in hydroponic greenhouse trials

KAREN DAVIDSON

For anyone who wants to surf the wave of greenhouse research, the Centre for Horticultural Innovation is a destination in Leamington, Ontario. That's where Enza Zaden's R & D team has made tracks to trial hydroponic lettuce varieties according to Kees Rodenburg, sales manager, CEA leafy greens for the U.S. and Canada.

"In the last five years, there's been a trend towards more indoor growing of leafy greens," observes Rodenburg. Retailers and consumers in the north-eastern regions of the U.S. and Canada are questioning the value – and sustainability – of transporting lettuce from California and Arizona, especially when they can access the crispness and shelf life of hydroponic locally-grown lettuce. This trend is moving quickly, as evidenced by new greenhouses in Ontario and Québec which came on-stream in 2025.

Like other global seed companies, Enza Zaden has been active in the Controlled Environment Agriculture (CEA) leafy green space for the last decade. Despite breeding innovations, it still takes a significant amount of time from identifying a promising variety to commercialization. The Netherlands-based company has developed about 20 lettuce varieties for CEA. One such example is Cristabel, a green crispy variety with thick, dark green leaves. According to the website, it is optimized for high-density production with fast growth and high yield potential. It has upright, 3D leaves and a short core that make it ideal for automatic harvesting. It's strong against tipburn and grows well in both high-tech greenhouse and vertical-farm settings.

"This variety is still going strong," says Rodenburg.

None of that verbiage could be published without extensive trials and confidence that the variety is superior to its competitors. That's where the expertise of Matt Korpan's team comes in. He's the executive director, R & D for the Center for Horticultural Innovation.

Between 40 and 50 Enza Zaden lettuce varieties are currently in trials in what's called "deep-water culture." This is where plants are suspended with their roots submerged in a nutrient-rich solution. Sollum Technologies is a partner, providing the lighting strategies for year-round production.

There's no naming contest yet, just numbered varieties of red and green leafy greens and baby romaine, explains Korpan. These are varieties cut at about 20 days to put in spring mixes.

"What we're looking for are bigger leaves, more crispiness, faster growth curves," explains Korpan. "We observe differences in performance whether it's low-light or high- light conditions. It's important to understand how the variety performs through seasonal differences."

Lettuce loves cooler temperatures, so it's much harder to manage when outdoor temperatures spike to 35°C. and indoor temperatures must be cooled to a preferable 18° to 24°C. The seed company must understand if new varieties can perform under stressful conditions. In addition, the company is looking for results of shelf-life testing and a consumer profile for each variety.

The trials will be ongoing for the remainder of 2025 and throughout 2026. Korpan says that work may be done in the future under mobile gutter or bench systems. "We work with all styles of production," he says.

Improved yields are the Holy Grail of new seed development without losing sight of other attributes such as freshness, taste and extended shelf life. That's where the current focus is now. Look to new CEA lettuce releases from Enza Zaden in December or January 2026.

Agricultural Information Contact Centre: 1-877-424-1300
ontario.ca/crops

Ontario Berry Grower

Ministry of Agriculture, Food and Rural Affairs

Ontario

Raspberry crown borer management - your fall to-do list

HANNAH FRASER & ERICA PATE

If borers are hobbling the health of your raspberry canes, take action this fall to help reduce pest pressure going forward. There are two types of borers attacking raspberries and other Rubus species in Ontario: raspberry crown borer (a clearwing moth) and cane borers (two species of beetles).

Raspberry crown borer is the most challenging to manage due to narrow windows of opportunity for control and limited availability of registered insecticides in Canada. Coupled with physical removal of infested canes and crowns, fall insecticide applications are the most effective way to reduce populations.

Raspberry crown borer adults are active during the daytime and can sometimes be observed resting on foliage, often as mating pairs. These moths have a wingspan of 25-30 mm and look like a big furry yellowjacket, with alternating black and yellow stripes on the abdomen and thorax. The biology of this pest has not been thoroughly investigated in Ontario, therefore some of the phenology (life stage timing) is based on other regions. Females lay eggs in the summer, from late August to September. Eggs are small (1.5 mm), oval, reddish-brown, and are laid on the underside of leaves, usually near the margin. The eggs hatch several weeks later (mid September through October), with larvae migrating to the base of canes, where they either excavate a small cavity or find a protected place in the bark to overwinter.

Early the following spring, larvae move through the cambium and into the crown, where they continue to feed through another entire year. Larvae spend most of their two-year life cycle protected within the plant, feeding on the crown, at the base of the canes, and on larger roots. They are protected from insecticides over most of that period. The longer a field is in production, the higher the risk, especially if the pest is not well-managed.

High tunnel and soilless production systems are unlikely to be at risk for infestation.

Feeding by larvae cuts off nutrients and water to canes, reducing plant vigour and yield, causing wilting and breakage at the crown, and allowing for the entry of secondary pathogens. The canes become weak and spindly and fruiting canes often collapse while the fruit is still immature.

Recognizing raspberry crown borer infestations early is key to reducing economic injury. Symptoms include wilting or dying primocanes and areas of weak growth in the spring, galls at the base of canes, and sawdust-like material at the crown. By early summer, infested canes will pull out easily from the crown with a sharp tug. Dig up the crown, clip off the canes and cut through the crown to look for frass, larvae, and tunnelling to confirm activity.

Since raspberry crown borer has a two-year life cycle and the larvae are at different stages of development at any given time, you need to target the pest over multiple years. This means applications in the fall to intercept newly hatched larvae as they move down the cane to the base of the crown and again in the following spring before they burrow into the crown. You will need to repeat this process over two consecutive years for effective control.

There is only one active ingredient (chlorantraniliprole) currently labelled for raspberry crown borer control in Canada. Altacor Max (PCP# 34654) or Shenzi 400 SC (PCP# 34974) (max 3 applications per year depending on rate) will control hatching eggs and young larvae before they move into the crown.

Research by McKern et al. (2006) in Arkansas indicated excellent control (100%) using Altacor drenches with early November timing. In Ontario, begin watching for adults and eggs to time control in late summer. The first spray will likely be needed in mid-September or early October when eggs are hatching, ensuring good coverage of the whole plant (canopy and lower plant). Follow this with a second application in mid to late-October, using a high-volume spray directed at the base of the cane to target larvae before they move into overwintering sites. Making two applications helps address the extended egg-hatch period in the fall.

Spring applications target the larvae before they move into the crown; these need to be completed very early, in April, when new shoots are 10-15 cm or less. Altacor Max can be used a maximum of three times at the low rate (108 g/ha) or two times at the high rate (143 g/ha) – maximum 324 g per hectare per season. Shenzi can be used a maximum of three times at the low rate (188 mL/ha) or two times at the high rate (250 mL/ha) – maximum 563 mL per hectare per season. Unfortunately, another insecticide that was previously relied upon for crown borer control, Diazinon 50 EC / 500 E, is no longer registered for use on raspberries.

Having only one insecticide registered for managing this pest sets growers up for problems with pesticide resistance, since there are no available rotation partners. Early identification and removal of infested canes needs to become a key component of IPM programs for raspberry crown borer.

Figure 1 Decline from raspberry crown borer

Figure 2 Raspberry crown borer pupa found in the crown.

Dig out and burn infested canes and crowns in the late summer and fall. Where practical, remove alternative hosts, such as wild blackberry and other brambles, from the area around the planting. Summer applications of entomopathogenic nematodes such as Steinernema feltiae that actively hunt raspberry crown borer (even once in the crown) may help to reduce numbers (Capinera, 1986); soils are too cold in the spring for these predators to be effective (McKern et al., 2006). Nematodes have not been evaluated in Ontario for management of raspberry crown borer.

For more information and pictures of raspberry crown borer and injury, visit Ontario.ca/cropIPM.

Hannah Fraser is entomologist – horticulture, and Erica Pate is fruit crop specialist, Ontario Ministry of Agriculture, Food and Agribusiness.

Upcoming events

Please mark your calendars for two exciting grower events happening this September!

On Wednesday, September 3rd, join us at the Ed Zamecnik Berry Trial Centre in Langton, ON for a Strawberry High Tunnel Grower Day, hosted by EZ Grow Farms. The event will run from 1:00 to 4:00 PM and will feature a special presentation from Jan Robben, a consultant from the Netherlands, titled "The interplay of chosen plant types, irrigation, nutrition, leaf management and climate conditions to maintain balance in everbearing strawberry plants."

This is a unique opportunity to explore five different high tunnel structure styles across five acres, featuring more than 20 strawberry varieties and four plant types. The site also includes trials with various gutter configurations and substrates—providing valuable insights into best practices for high tunnel strawberry production.

Then, on Thursday, September 4th, we invite you to our Berry Growers of Ontario Twilight Meeting hosted by Howe Family Farm in Aylmer, ON. The evening will begin with a farm tour at 4:00 PM, followed by dinner at 6:30 PM, and will wrap up around 8:00 PM.

This event will feature a demonstration of the UV-C Ag Rover, an autonomous robot designed for tabletop strawberry disease management, funded by Ontario Agri-Food Research Initiative. Demonstrations from the AgRobotics Working Group, including the Naio Oz and Burro robots from Haggerty AgRobotics will also be in attendance for field demonstrations.

Dinner is free for BGO members, and $35 for non-members. Please email info@ontarioberries.com to register so we can plan accordingly.

MARKETPLACE WORKS

advertising@thegrower.org
866-898-8488 x 221

REFRIGERATION

ROOTSTOCK

GROW TRAYS

CONTAINERS & PACKAGING

CLASSIFIED ADS

Wood 18 busshell apple bins in good condition. $70 each. Wilde tree planter. Best offer. Call Kevin 905-807-9419

Greenhouse/Grower/Retailer For Sale: Grower Retail Garden Center. 10 Acres in Midland, Ontario. Located on major hwy access - zoned agricultural - well water. For full listing information visit www.farms.com/farm-real-estate/ or call 705-526-9610

For Sale: complete Irrigation System: Owner Retiring
• PTO Rovati Pump
• 3330 ft Wade Rain aluminum pipe
• Hydrants; elbows; couplers; reducers, sprinklers; risers
• Irrigation trailer
$15, 300.00 + tax
Phone: The blueberry Patch 613-476-1309

New Holland, WM 70 with 7.5–20 front tires, 13.6 R 38 radials on back. High clearance. 1200 hrs. Used for utility around farm and driving wagon, sprayers, etc. through Ginseng.
New Holland, TD 95HC 2 wd, high clearance spray tractor with shields 4500 hours. Has 7.5 16 on front and 320/80R42 on back. Good running tractor with no issues. Call or text Carl at 519-427-4124

180 wooden apple bins for sale. 905-627-0420

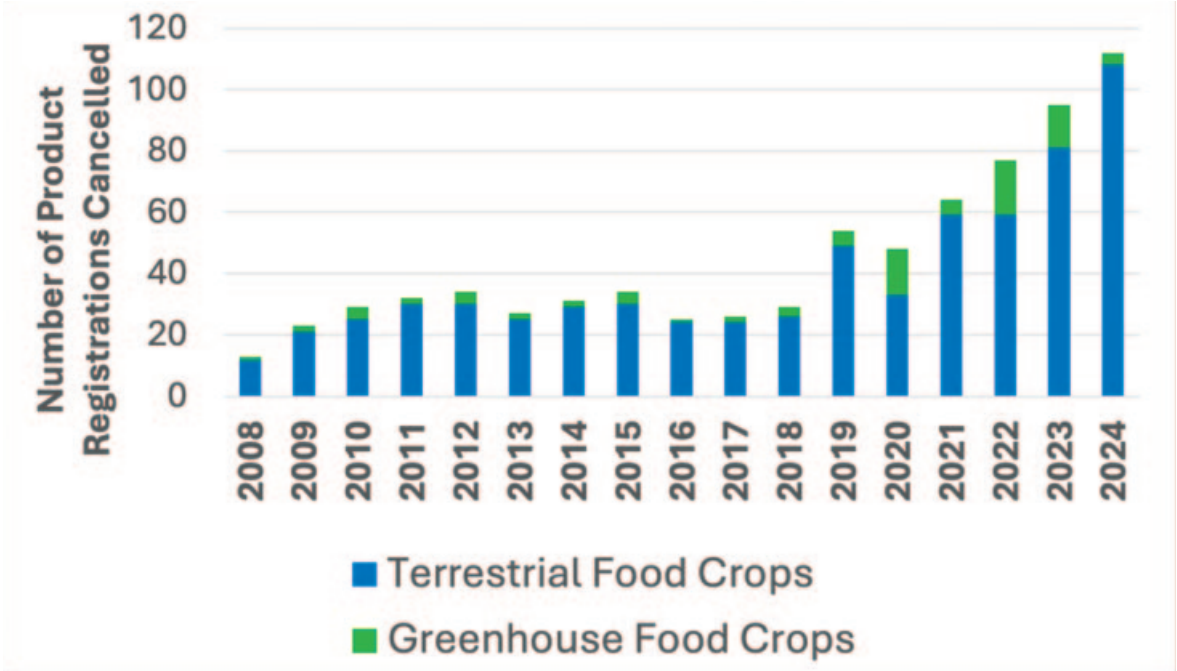
CLASSIFIED ADS
519-763-6160
X 221
advertising@thegrower.org

CROP PROTECTION

The case for a food lens at the Pest Management Regulatory Agency

MASSIMO BERGAMINI

CHRISTINA TURI



Source: PMRA Product Information Database (Accessed June 2025)

Policy decisions made in Ottawa rarely stay on paper — they ripple through farms, greenhouses, and packing sheds across the country. And it's not just agriculture policy that impacts growers. Most often it's policies with roots that are far removed from agriculture that have the greatest impact.

That's why the Fruit and Vegetable Growers of Canada (FVGC) has been advocating for a food lens to be applied to all federal policymaking, an approach that would ensure agriculture and food security are fully considered in all policy development.

The use of a food lens in federal policymaking is predicated on the assumption that food security and growing a more resilient agriculture sector to support it are seen as a national priority by the Government of Canada.

For the first time in years, there were recent commitments in the May Speech from the Throne that give us reason to believe that supporting food security and a stronger agriculture sector may have moved up the Government's agenda. Most telling, however, may be the Liberal Government's 2025 platform specifically calling for change at the Pest Management Regulatory Agency (PMRA) by promising to consider food security within all regulatory decisions.

Why this matters

Health Canada's PMRA is the federal body responsible for science-based regulation of crop protection tools in Canada and is mandated under the Pest Control Products Act to prevent unacceptable risks that could be posed to both human health and the environment.

While the PMRA's mandate is the foundation for all downstream activities of the agency, formal mechanisms to consider negative impacts to our sector's viability and competitiveness are not integrated into the PMRA's decision-making process. As a result, growers have lost a significant number of registered uses over the last five years without identification of suitable alternatives.

When the PMRA decides to remove products from the market, the agency is not required to consider food production impacts or find suitable alternatives. There is also no requirement to engage with grower organizations prior to the publication of a proposed decision. As a result, today, growers are left to fend for themselves when products are cancelled or withdrawn from the marketplace.

To complicate matters further, efforts to mitigate impacts from the overall loss of crop protection tools are falling short as the sector has experienced significant delays in bringing new products to market through the PMC's Minor Use Pesticide Program (MUPP) and Cat. A registration process. For example, applications for new products (Cat. A) are taking three to four years to complete instead of the standard two years. In some instances (e.g. products used by greenhouse growers), the registration process is taking 2.5 – 3.5 times longer than it would in the U.S., despite the data having been generated through joint projects with the USA's IR-4 project.

Moving forward

While the legislation that mandates the PMRA calls for a balanced approach to pesticide regulation, the lack of formal and transparent assessments of the impact of the agency's decisions on agriculture mean these are often given short shrift.

The integration of a food lens into the PMRA's decision-making practices would require the regulator to conduct a cost-benefit analysis of policy initiatives by examining their impact on agricultural production and would ensure that any trade-offs were transparent.

For example, during re-evaluations the transparent application of a food lens would require the PMRA to consult earlier with grower organizations to understand the downstream implications of a product's removal and suitability of alternatives. It would also provide growers with the opportunity to feed into the decision-making process by providing additional information to refine risk assessments or make recommendations on which uses should be kept. Any trade-offs and steps taken to mitigate impacts would then be communicated in the proposed decision.

But beyond its regulatory process, there are other examples of how a food lens could clarify the nature of decision-making. For example, with sweeping cuts to public service spending just announced, a food lens would ensure their downstream impact on agriculture and food security are considered in decision-making. Using a food lens to assess where cuts should be made within the Heath Canada portfolio, the department would have to determine – and, importantly, report on - the impact these cuts would have on the timely delivery of new crop protection tools.

Having been successful in the last election in having the importance of a food lens recognized by the governing party, and later in the Speech from the Throne, FVGC will continue to make this a centerpiece of its advocacy when Parliament resumes sitting on September 15.

Massimo Bergamini is executive director of the Fruit and Vegetable Growers of Canada. Christina Turi is manager, plant health and crop protection with the Fruit and Vegetable Growers of Canada.

CROP PROTECTION

Lontrel XC herbicide registered to help manage labelled weeds in rhodiola, edible honeysuckle (haskap), raspberry and blackberry

JOSH MOSIONDZ

The Pest Management Regulatory Agency (PMRA) recently approved a minor use label expansion registration for Lontrel XC herbicide for control or suppression of labelled weeds in rhodiola, edible honeysuckle (haskap), raspberry, and blackberry in Canada. Lontrel XC herbicide was already labeled for management of weeds on a wide range of crops in Canada. This minor use proposal was Agriculture and Agri-Food Canada's Pest Management Centre as a result of minor use priorities established by growers and extension personnel.

The following is provided as an abbreviated, general outline only. Users should be making weed management decisions within a robust integrated weed management program and should consult the complete label before using Lontrel XC herbicide.

Follow all other precautions, restrictions, and directions for use on the Lontrel XC herbicide label carefully.

For a copy of the new minor use label contact your local extension specialist, regional supply outlet, or visit the PMRA label site http://www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php

Josh Mosiondz is minor use coordinator, OMAFA, Guelph, Ontario.

Crops	Target	Rate (L product/ha)	Application information	PHI (days)
Rhodiola	Suppression or Control of Labelled Weeds	0.34 L/ha in 300 L of water per hectare	For the control of labeled weeds, apply Lontrel XC Herbicide using ground equipment only. Apply after transplanted R. rosea have been established. Best results are obtained when weeds are actively growing, and soil moisture is adequate for rapid growth. Under dry soil conditions and poor growing poor growing conditions, weed control may be reduced. Crop injury can occur when applied to plants not actively growing, still in transplant shock or in stressful growing conditions.	30
Raspberry, Blackberry	Suppression or Control of Labelled Weeds	0.25 L/ha in 100 – 200 L water/ha	Make 1-2 applications per year, with a minimum 30-day application interval, to control labeled weeds. Application rate: Apply Lontrel XC as a banded application to the soil extending out a minimum of 0.5 m on either side of the plant row, to actively growing weeds. Not all varieties of raspberry and blackberry have been tested for tolerance to Lontrel XC Herbicide; therefore, growers are advised to test a small area first before using Lontrel XC Herbicide on an entire field and/or should consult with their seed supplier about the tolerance of raspberry/blackberry varieties to Lontrel XC Herbicide. Avoiding contact of spray on foliage (where possible) will reduce the potential for crop injury.	30
Edible Honeysuckle (Haskap)	Suppression or Control of Labelled Weeds	0.25-0.5 L/ha of in 100 to 200 L/ha of water	Apply one post emergent application per year at bloom, post-bloom, or after harvest. Apply as a directed spray treatment (ground equipment) targeting weeds and away from the plants (avoid contact with foliage or woody portions to reduce the risk of crop injury) or as a spot treatment under the canopy of edible honeysuckle (haskap) plants. Plants are more sensitive to Lontrel XC Herbicide applied in the spring prior to bloom, before and/or during the crop's annual flush of growth, than after bloom.	30

Coragen MaX insecticide label expanded to manage various pests on quinoa and bulb vegetables

JOSH MOSIONDZ

The Pest Management Regulatory Agency (PMRA) recently approved minor use label expansion registration for Coragen MaX insecticide for control of various pests on quinoa and bulb vegetables Canada. Coragen MaX insecticide was already labeled for management of insects on a wide range of crops in Canada. This minor use proposal was submitted by Agriculture and Agri-Food Canada's Pest Management Centre as a result of minor use priorities established by growers and extension personnel.

The following is provided as an abbreviated, general outline only. Users should be making insect management decisions within a robust integrated insect management program and should consult the complete label before using Coragen MaX insecticide.

Follow all other precautions, restrictions, and directions for use on the Coragen MaX insecticide label carefully. For a copy of the new minor use label contact your local crops specialist, local regional supply outlet, or visit the PMRA label site http://www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php

Josh Mosiondz is minor use coordinator, OMAFA, Guelph, Ontario.

Crops	Target	Rate (mL product / ha)	Application information	PHI (days)
Quinoa	Beet Webworm (control) Goosefoot groundling moth (control)	83 to 125	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control. Do not make more than 3 applications per year. Do not apply more than once every 7 days. Do not apply less than 1 day before harvest. Feeding Restriction: DO NOT graze, cut or feed treated crops to livestock. Do not exceed a total of 375 mL of Coragen® MaX Insecticide per ha per year. DO NOT APPLY BY AIR. Do not make a foliar application of Coragen® MaX Insecticide for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.	1
CG 3-07 (Bulb Vegetables)	Cutworms (control) Leek moth (suppression) Leafminers: *Liriomyza sativae; Liriomyza trifolii* (control)	83 to 125	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control. Do not make more than 4 applications per season. Do not apply by air. Do not apply more than once every 5 days. Do not exceed a total of 375 litres of CORAGEN® MaX Insecticide per ha per season. Do not make a foliar application of CORAGEN® MaX Insecticide for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.	1

Agro-K's Science Driven Nutrition™;

Growing Higher Valued Apples by Maximizing Fruit Color

Every season, apple growers work overtime to produce an abundant harvest of delicious, well colored fruit. Utilizing Science-Driven Nutrition™ during the limited crop windows, when foliar nutrient applications will be most effective, is a key part of maximizing yield year after year. The time from color break to post-harvest is a grower's final opportunity to impact the crop's nutritional needs each season.

Fruit color is the direct result of optimizing leaf development and function starting at tight cluster through to harvest. Zinc is a primary nutrient for growing the bigger leaves that drive apple sugar production. In turn, those sugars—assisted by potassium and phosphorous—boost the production of anthocyanins, the pigment that gives apples their intense red color. A deficiency in either nutrient late season can negatively impact fruit color. Both Agro-K's **Potassium Finishing Solution** and **Agrobest 9-24-3** are premium foliar products that can support this natural process.

Growers that applied seaweed products earlier in the season will want to reduce their usage as harvest approaches. Unless they are actively attempting to delay maturity, seaweeds inhibit ethylene production and slow the ripening and color process.

After the harvest, zinc and boron support bud overwintering and new bud health. Magnesium helps to set the stage for early leaf function in the spring, jumpstarting the growth cycle again next season. Agro-K's **Top-Set** and **Zinc+5 DL** can be applied at the same time to address these nutritional requirements.

Agro-K sets growers up for success from fruit color through post-harvest by arming them with the knowledge, programs and products they need to make smart decisions. This process begins with the **Five Rs**: The Right nutrient applied at the Right time in the Right form in the Right mix targeting the Right location in the plant. Science-Driven Nutrition™ is implemented to determine crop nutrient levels and foliar product applications ensuring the apples get what they need to thrive.

For more information on how Agro-K can help your apple crop flourish throughout the season, visit www.agro-k.com.

Rick de Jong
International Business Development Manager
rick@agro-k.com • 778-215-6723

AGRO-K®
CORPORATION
8030 Main Street, NE • Minneapolis, MN 55432
800-328-2418 • www.agro-k.com

Science-Driven Nutrition™