

FEBRUARY 2024

CELEBRATING 145 YEARS AS CANADA'S PREMIER HORTICULTURAL PUBLICATION

THEGROWER.ORG

FINANCE

A plug for building futures



In February 2024, Dusty Zamecnik, EZ Grow Farms, is launching a 19-acre glass propagation greenhouse near Langton, Ontario. Building on years of experience with bare-root plants, he's learned how to meet specific needs of the burgeoning greenhouse industry in Ontario. These root-bound strawberry plugs are destined for the Learnington area. Photos by Glenn Lowson.

KAREN DAVIDSON

Ready. Set. Grow.

Coddled in a controlled environment, root-bound strawberry plugs are set to explode. What's unseen in the fibrous roots is a globally-sourced variety that's virus-free, disease-resistant, high-yielding and flavourful once grown in an Ontario greenhouse.

These plugs are the pride of Dusty Zamecnik, EZ Grow Farms, Langton, Ontario. He and his parents,

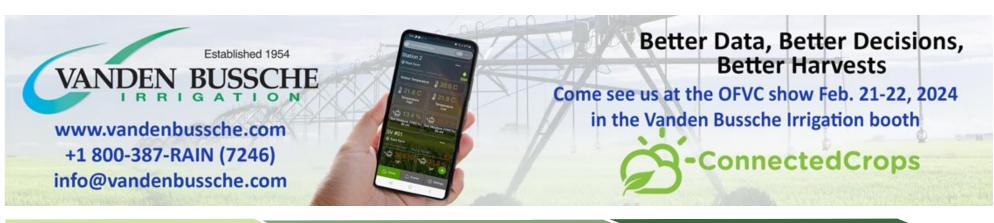
Darryl and Helen, have built a state-of-the-art, 19-acre propagation facility that is home to the first crop of plugs in 2024. They are destined for the burgeoning strawberry greenhouse industry that has grown to almost 350 acres in the Leamington area since 2017.

"We'll be rocking and rolling planting the first crop of mothers in early February," says Zamecnik with characteristic enthusiasm. "We have evolved with our clients in the last seven years, understanding where the market is and what timing makes sense."

Growing incrementally

The multi-million dollar investment is based on more than 30 years of propagating experience with bare-root plants for southern U.S. berry growers. His clients are primarily in the Plant City, Florida area, the epicenter of the winter strawberry industry.

Continued pn page 3



Agricorp pays record claims

Ontario Fruit & Vegetable Convention

PG 14

TFW housing

PG 18

Volume 74 Number 02 P.M. 40012319

\$3.00 CDN



AT PRESS TIME...

CFIA pauses phased updates to individual fresh fruit and vegetable grade standards

The DRC-led initiative to review and implement industry's proposed changes to SFCR Compendium 2, Canadian Grade Compendium: Volume 2 – Fresh Fruit or Vegetables Grades and Requirements has stalled as the Canadian Food Inspection Agency (CFIA) implements a pause to the phased updates to individual grade standards.

CFIA recently advised the Fresh Produce Alliance (FPA) of a review of its priorities to ensure resources are allocated to the highest-risk areas. The exercise includes exploring a new approach to fresh fruit and vegetable (FFV) grades that is aligned with the CFIA's mandate and priorities. The intent during the pause is to work toward development of a more efficient model for grades that will facilitate trade, support economic growth and align with their mandate. CFIA hopes the exercise will lead to a more efficient and timely process to review and implement proposed changes.

To assist in better understanding the role that grade standards play in the marketplace, including the role and value of the standards as well as their linkages to food safety and traceability, CFIA is engaging with FPA organizations (CPMA, DRC,



Test market authorization for nectarines expires on July 5, 2024. Photo by Glenn Lowson.

FVGC). CFIA is redirecting resources to prioritize and complete this engagement in a timely manner.

FPA notes that while this is taking place, the CFIA pause impacts the phased updates to all individual grade standards, including those for which public consultations have already been held.

The horticultural industry is anxious to see proposed changes implemented and the pause is a significant concern, particularly as there are currently some Test Market Authorizations (TMA) in place with upcoming expiry dates. Of particular note is the TMA for nectarines which expires on July 5, 2024. While the new stand-alone grade standard for nectarines would address elements of the TMA, it appears that an extension may not be

possible and the proposed new standard will likely not be implemented by July as a result of the pause.

"Modernizing the grade standards is vital to the ongoing viability of our sector" said Ron Lemaire, president, Canadian Produce Marketing Association.

"Grade standards are an important business tool used by the entire supply chain. We need to ensure the pause by CFIA does not cause undue burden on our industry as we continue to address the many factors which impact competitiveness and growth."

Further updates and discussion on grade standards will take place at the upcoming FVGC annual general meeting to be held in Ottawa from March 4-7, 2024.

CFIA's new president

Paul MacKinnon, a Prince Edward Island native, becomes the new president of the Canadian Food Inspection Agency effective January 27, 2024. Most recently, he was deputy secretary to the Cabinet (Governance) in the Privy Council Office. The long-time public servant has worked in several federal departments including the Canada Border Service Agency, Immigration, Refugees and Citizenship Canada, and Public Safety Canada.

NEWSMAKERS

Mary Robinson, PEI farmer and past-president of the Canadian Federation of Agriculture (CFA), has been appointed to the Senate of Canada. The first female president of the CFA 2019-2023, she has consistently played leadership roles throughout her career. She hails from Augustine Cove, PEI and is a managing partner of a sixth generation family farm operation. Congratulations to @agproudmary on this appointment!



Mary Robinson

Congratulations to **Lorne Hepworth**, named to the Order of Canada "for his exceptional contributions to Canadian agriculture and research, which have propelled the sector to new heights." A veterinarian by training, he's held various roles as an MLA and minister in the Saskatchewan legislature, led CropLife Canada for 17 years and advocated for strong, science-based regulations in Canada. He's currently chair of the Agricultural Institute of Canada.



Lorne Hepworth

Ontario Apple Growers has announced its 2024 board of directors that will support chair **Brian Rideout** and vice-chair **Chris Hedges**. They include: **Jeremy Veens**, **Joe Van de Gevel**, **Brian Gilroy**, **Kyle Ardiel**, **Robert Shuh**, **Kara Pate**, **Cathy McKay** and **Manus Boonzaier**.

Québec apple growers have announced that the association's general manager **Daniel Ruel** is retiring after 39 years of service. Replacing him is **Jérôme-Antoine Brunelle**. The association celebrated its 50th anniversary on January 25, 2024.

Fruit and Vegetable Growers of Canada welcomes **Amy Argentino** as new director of operations as the association navigates through a transitional phase to hiring a new executive director. An employee for more than 20 years, she will continue to fulfill responsibilities of the manager of projects and programs, including the AgriScience Cluster 4.



Amy Argentino

The British Columbia Fruit Growers' Association is in transition. **Glen Lucas**, general manager for 25 years, is retiring on March 4, 2024. Taking over the reins is **Melissa Tesche**, formerly the general manager of the Okanagan-Kootenay Sterile Insect Release Board since 2015. Tesche has experience with the Okanagan Water Basin Board and has an M.Sc., Conservation Biology from the University of British



Melissa Tesche

Columbia, and B. Ed., Secondary Sciences and B.Sc., Biological Sciences, from the University of Alberta, 2004. The association, representing 300 tree fruit members, is headquartered in Kelowna.

Based in Leamington, Ontario, Plant Products has appointed **Scott Hodgins** to the newly-created position of general manager. In his new role, he will be responsible for the day-to-day management and execution of the Plant Products North America business, allowing **Chris Stickles**, president of Plant Products, to focus on the long-term strategic direction of the company.



L-R: Scott Hodgins and Chris Stickles

The Ontario Produce Marketing Association has hired **Rebecca Harris** as the new president, starting Jan 29, 2024. She brings more than 15 years of association management experience.

















MAVERICK F1

Determinate beefsteak with impressive yields of high lycopene fruits and a disease resistance package suitable for dual use in open field or protected culture. Deep shape smooth shoulders, large fruits.



Sales Representatives

Ontario
Warren Peacock
warren.peacock@norseco.con
\$_519 427-7239
MB, SK, AB & BC

MB, SK, AB & BC
Ben Yurkiw
ben.yurkiw@norseco.com
604 830-9295
Eastern Montérégie

Marie-Pierre Grimard, P. Tech

450 261-7468
Western Montérégie
Marie-Hélène Monchamp
marie-helene.monchamp@norseco.com
514 968-2906

North Shore of Montreal Isabelle Dubé, Agr. isabelle.dube@norseco.com 514 295-7202

Central and Eastern Quebec Stéphanie Gosselin, Agr. stephanie.gosselin@norseco.co

Central & Eastern Québec Yves Thibault, Agr. yves.thibault@norseco.com 418 660-1498

Katherine Jouvet, Agr. katherine.jouvet@norseco.com



A plug for building futures

Continued from page 1

In the past and up to the present, bundles of bare roots are delivered to clients in October. The plants will bear fruit in 60-plus days, ready to be shipped to Canadian retailers by the peak holiday season and into spring.

In recent years, climate change has upped the risk for field growers. In 2023, he experienced the wettest and darkest summer on record. Half an inch of rain in 30 minutes not only saturates the ground, but brings disease too. As Zamecnik explains, many sleepless nights have bled into stressful days trying to deliver on promised quantities of viable plants. That uncertainty is not an acceptable risk for greenhouse growers. This is why EZ Grow Farms has been learning to grow plug plants for its greenhouse clients, finetuning which varieties and practices work best under local environmental conditions.

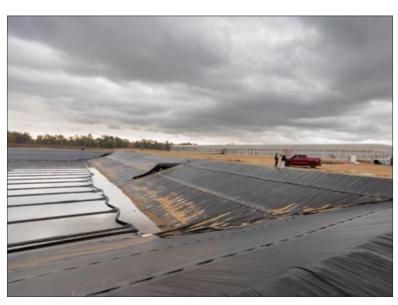
"November is the sweet spot for retailing greenhouse-grown strawberries in eastern Canada and the eastern seaboard," says Zamecnik. "That means EZ Grow Farms needs to deliver plugs in July."

Some of the knowledge behind these changes has been derived from frequent trips to Europe: Italy, England, Belgium, Netherlands, Spain. These forays are primarily to talk to breeders and scout new varieties. Still, this is not a plug-and-play venture. As experience has shown, these growing systems perform differently under Ontario's various humid conditions, lighting regimes and substrates.

Understandably, the growth path has been incremental, starting with one acre of plug plants then expanding to 2.5 acres before building a 6.5 acre Cravo-retractable roofed facility in 2019. Thanks to the track record of proving that the technology works and that clients are paying for mature strawberry plugs compared to a bare root, Farm Credit Canada has been a long-time financial partner.

"We have been aggressive in our growth but with cautious steps," explains Zamecnik.
"Perhaps it would have made more financial sense to move to 6.5 acres more quickly, but our lender appreciated the building blocks."





With emphasis on environmental stewardship, EZ Grow Farms has built a collection pond with capacity to store 50 million litres of rainwater that's funnelled from the facility rooftops. As needed, the water can be filtered and recirculated through the growing facility.





These two photos compare bare-root strawberry plants with plugs. Note the root development.

Growing with proprietary technology

Since the propagation facility is one-of-a-kind, Zamecnik has protected his competitive position with supplier agreements to not use his template for cookie-cutter builds within a few years. The details aren't public, but given the investment, these arrangements are good business practice.

The water disinfection system, for example, is specific to EZ Grow Farms. The new plants must be misted and watered from overhead to prevent damage to the plant tips. Because a monoculture is under glass, it's easy for disease to replicate. So water filters are designed of the highest calibre to mitigate this disease risk. The protocols to protect plantlets are tested at the South Essex Fabricating R & D Centre in Leamington.

"It's not just the technology but the protocols that we've developed which are proprietary," says Zamecnik.
"There's been no hard blueprint
for us in North America. We're
developing these ourselves."

Growing in the future

Ontario's Norfolk County has always been known for its wealth of innovators. What's not clear is how farm families will invest in future expansion as the costs of AI, robotics and infrastructure soar to millions of dollars. Will farmers be able to pitch their long-term visions with institutional partners at the boardroom table?

"If you look at the Statistics Canada data, we are not investing in agriculture in a way that reflects the superpower that we think we are," says Tyler McCann, managing director, Canadian Agrifood Policy Institute (CAPI). "Investment is in decline in some agricultural sectors."

"Good projects are getting

financed," continues McCann, with a nod to the strawberry propagation story. "But there's a lack of projects on the table."

At a broader level, he says there is too much comfort in the status quo and a lack of ambition for growth. Those are tough words for a sector known for its entrepreneurial ways. The underlying challenge is overcoming regulatory burdens and convincing provincial and federal governments of the economic engine that can sustain rural communities. Horticulture alone has a Canadian farmgate value of \$6 billion.

That's an elevator pitch that should be repeated often to governments that hold the policy levers. Dusty Zamecnik's strawberry propagation story is an excellent case history of what can be done, responding to market signals and using the talents of a complex supply chain.

The Grower is "Digging Deeper" with Tyler McCann, managing director, Canadian Agri-food Policy Institute. He makes a case for more investment in Canadian agricultural innovation if the sector is to reach its potential as a super player on the global stage. This podcast is sponsored by Cohort Wholesale.





April 23-25, 2024

#CPMA2024 convention.cpma.ca



CROSS COUNTRY DIGEST

CANADA

Negotiating 2024 potato contracts will be challenging in land of plenty



"Overall, there has been a serious change in the North American potato supply compared to the shortages of 2022, specifically in the processing sector with plentiful supplies in the Pacific Northwest," writes Victoria Stamper, general manager, United Potato Growers of Canada (UPGC).

Most of the oversupply is coming from the United States, in the major production areas of Idaho and Washington, however Alberta and Manitoba also experienced very good crops in 2023 and have plentiful supply in the processing sector as well.

The U.S. had the largest potato crop since 2000, with nine out of 13 reporting states showing yield increases from the previous year. USDA projected an overall national average potato yield of 452 cwt per acre led by 615 cwt/acre yield in Washington state.

"UPGC will continue to keep an eye on the movement of potatoes, not just the shipments of fresh potatoes, but also the shift of potatoes between sectors which can happen in times of oversupply," says United States Potato Production (million cwt)

State	2020	2021	2022	2023	Change
California	12.86	11.05	8.47	9.61	13.60%
Colorado	22.6	21.48	21.43	21.37	-0.20%
Florida	5.3	5.4	5.02	6.06	20.60%
Idaho	134.78	132.09	120.75	141.9	17.50%
Maine	13.46	18.39	18.43	17.36	-5.80%
Michigan	17.55	19.35	18.88	19.48	3.10%
Minnesota	17.92	17.55	19.15	18.43	-3.80%
Nebraska	9.21	9.26	9.65	11.06	14.60%
North Dakota	23.8	22.5	21.75	25.88	19.00%
Oregon	27	26.28	25.8	27.23	5.50%
Texas	7.12	5.52	7.42	4.89	-34.10%
Washington	99.65	91.93	95.41	101.17	6.00%
Wisconsin	28.77	29.03	26.6	29.8	12.00%
US Total	420.02	409.83	398.74	434.22	8.90%

USDA November Crop Production Report

Stamper. "It is important to speak about the facts and figures, but we realize that growers want to know what the impact will be, both on the current crop as well as 2024 planting intentions."

At press time, Stamper says that negotiations continue in Washington: "They had some tentative agreements back in November 2023 that have been revised."

BRITISH COLUMBIA

BC apple growers seek stability

British Columbia's apple sector has declined over the past five years, from 8,500 to 6,700 acres, sparking grower interest in a new marketing model. A neutral, third body chaired by Derek Sturko has been overseeing consultations.

Six recent meetings held January 8-10 from Vernon to Cawston were attended by 211 growers, an estimated half of all apple growers.

"The attendance indicates a very high level of engagement," said Derek Sturko, chair of the project management committee which includes successful, representative BC apple producers and packers.

Growers considered the industry's current circumstances,

the reasons for its recent decline, and were consulted on three options: status quo, a marketing association, and a marketing commission. The status quo was not considered a viable option by growers.

Of the two remaining alternatives, a possible apple marketing commission was the focus of discussions and questions



TREES AVAILABLE FOR SPRING 2024

Brilliant Gala® (MGCP)	M9	2 year
Brilliant Gala® (MGCP)	G11	1 year 5' feathered
Brilliant Gala® (MGCP)	M9	1 year 5' feathered
Brilliant Gala® (MGCP)	M9	1 year 4-5'
RR Honeycrisp	M9	1 year 4-5' feathered
RR Honeycrisp	M9	1 year 4-5'
RR Honeycrisp	Nic29	1 year 4-5' feathered
RR Honeycrisp	Nic29	1 year 4-5'

Brilliant Gala® (MGCP)

The blush formation is characterized by a striking combination of colour, colour intensity and blush development. Shows early coloring, almost in the entire tree, with the blush becoming more closed towards harvest. Has an attractive, intense bright red, almost closed blush; often shows some stripes and speckles on the blush edge and on the shadow side of the fruit.

When picked later, the colour gradually becomes a darker red. High percentage of loads with a lot of blush; Usually some ground colour is still visible (bicolour). Exceptional storability.





Vissers Orchard & Nursery Inc.

355736 The Blue Mountains Euph Tline Cor cell: 519-777-0446

Clarksburg ON NOH 1J0 Email: vissers.orchard.nursery@gmail.com posed by growers. An independent consultant, Purdeep Sangha of Sangha Worldwide, facilitated the sessions and will prepare the summary report. Robin Smith of Foodwest Resources Inc developed and presented business plans and budgets to inform growers' understanding of the pros, cons, and costs of a possible apple marketing association or apple marketing commission.

"As a neutral facilitator, I was very pleased with the attendance, engagement, and thoughtful discourse on the alternatives," said Sangha.

Smith noted that "Growers focussed on the three main activities proposed in the Apple Marketing Commission business plan: collecting data and making it available to all industry participants, establishing and monitoring quality standards so that there is a level playing field between packers as well as protection of BC's reputation for high quality apples, and finally a

'generic' promotion program that goes beyond individual packinghouse labels but at the same time supports and integrates with those labels."

Now the project management committee will recommend how to proceed.

"Returning stability and even growth to our iconic apple sector is important to food security and the economy," noted Peter Simonsen, president of the BC Fruit Growers' Association (BCFGA). The association sponsored the facilitated meetings through a grant provided by the Tree Fruit Industry Stabilization Fund. The BCFGA remained neutral in conducting the project, but Simonsen concurred with growers at the sessions by summarizing "We need solutions, and we need them now before it is too late."

Source: BC Fruit Growers' Association January 11, 2024 news release

CROSS COUNTRY DIGEST

BRITISH COLUMBIA

Drought concerns linger in 2024

The BC River Forecast Centre reported on January 1, releasing new data that points to ongoing drought concerns.

The executive summary said that the provincial snow pack is extremely low, averaging 56 per cent of normal (44% below normal). In 2023, at the same time, the provincial average was 82 per cent for January 1.

Temperatures were well above normal from October 1 to December 31, 2023. Precipitation was well below normal for most of the province.

Fifteen snow stations measured all-time record low snow pack with five occurring in the Lower Fraser and four within the Upper Columbia snow basins.

Due to the extremely low snow conditions, below normal hazard for spring freshet-related flooding is emerging, especially in the Interior. The low snow pack could significantly affect ongoing drought concerns into summer 2024.

Granted, there are still three or more months left in the snow accumulation season and the snow pack can still change significantly based on weather conditions. The BC River Forecast Centre will continue to issue reports through to June.

The Climate Prediction Center (CPC) at the U.S. National Weather Service has issued an El Niño Advisory for 2023-24. El Niño is the warm phase of the El Niño-Southern Oscillation. It is expected to continue through the North American winter, with a transition to neutral conditions favoured during April-June 2024 (60% chance).

This is the first El Niño winter season since 2018-19. Typically the weather phenomenon is linked to warmer winters across British Columbia. Snow packs tend to be lower than normal. However, there has been a large range of variability in snow pack in BC during El Niño winters in



the past. For example, 2006-07 had an extremely high snow pack develop during an El Niño winter. Seasonal weather forecasts from late December 2023 by Environmental and Climate Change Canada indicate

a greater likelihood of above normal temperatures for BC from January through March 2024. Precipitation, which is more difficult than temperature to predict at a seasonal scale, is not showing any dominant trend of above normal or below normal precipitation for the upcoming months

The next report is expected February 8.

ONTARIO

What is this tuber disease?

EUGENIA BANKS

Here is a photo from an Ontario agronomist wondering what the problem could be. I had seen this before but not very often and my diagnosis was *Alternaria*. I forwarded the photo to two potato pathologists in the U.S.: Steve Johnson and Neil Gudmestad. They also indicated that the symptoms were like those produced by Alternaria.

A. solani causes early blight on foliage. Lesions may develop on the surface of stems and tubers when infection is severe. Tuber lesions are dark and

sunken and may be circular or irregular in shape. The underlying tissue is dry with a corky texture and a dark-brown colour.

Tuber symptoms of early blight develop after months in storage and can be confused with Fusarium dry rot.

Steve, Neil and I are from the Old School; Artificial Intelligence was not used to make this diagnosis.

Eugenia Banks is consultant to the Ontario Potato Board.



CANADA

Improved FieldView experience includes new connectivity option with precision planting

Climate FieldView, Bayer's flagship digital farming platform, is improving customer experience for the 2024 crop season. This includes enhancements to Field Region Reports and Yield Analysis, new reporting functionality on seasonal activities, as well as improvements to FieldView's in-cab experience.

Also ready for 2024, Precision Planting has announced that FieldView customers can now seamlessly transfer agronomic and farm equipment data from Panorama to their FieldView accounts. The new Panorama app and website connects to a farmer's Gen 3 20 | 20 to easily view maps, input summaries, and agronomic data on a smartphone, tablet, or computer. Testing took place throughout the 2023

season, and FieldView is one of the first platforms with the ability to receive data from Panorama, when a farmer chooses to make the connection.

"We focus on providing a best-in-class digital experience for our customers, and their input is what prioritizes our work in FieldView," said Brandon Rinkenberger, chief customer officer for Climate LLC and Digital Farming at Bayer. "The FieldView Cab app paired with a 20 | 20 continues to provide accurate real-time mapping of planting and harvest data, and we've added map layers and other enhancements to further improve the in-cab experience with Precision Planting. With Panorama, now farmers have an additional connectivity option



outside of the cab."

FieldView is the flagship product of Climate LLC, the digital farming arm of Bayer. FieldView gives farmers a deeper understanding of their fields so they can make more informed operating decisions to optimize yields, maximize efficiency and reduce risk. Contact a local FieldView dealer or rep to learn more about FieldView's latest

features, enhancements and boots- on-the-ground service "Premium Services."

Source: Bayer January 16, 2024 news release

GREENHOUSE GROWER

Sollum Technologies and Delphy to partner on dynamic LED lighting research

Sollum Technologies, headquartered in Montreal, is joining the LED pepper trial at Delphy Improvement Centre, a leading research and training facility located in The Netherlands.

Delphy Improvement Centre, a part of the extensive Delphy Group BV, has been at the forefront of greenhouse horticulture research, constantly seeking solutions to enhance crop productivity through various cultivation techniques.

The goal of the project — to uncover solutions optimizing crop productivity — aligns with Sollum's dedication to lighting adaptability and sustainability. With more than 10 years' experience in LED lighting trials, Delphy recognizes the potential of dynamic lighting strategies such as Sollum's fully dynamic solution. Its capabilities in zoning, spectral adjustments and automatic dimming enable custom modifications tailored to individual research requirements.

The inaugural joint project will look at irrigation strategies in conjunction with LED lighting in pepper cultivation. As traditional greenhouse irrigation strategies



were primarily established on radiometric units stemming from sunlight and HPS lamps, the advent of dynamic LED lighting, characterized by micromoles and minimal radiant heat, has posed challenges for growers.

"Working with Sollum Technologies to explore the potential of lighted pepper cultivation is an interesting step," says manager Lisanne Helmus-Schuddebeurs at Delphy Improvement Centre. "As we delve deeper into the realm of greenhouse LED lighting research, and especially the potential of growing peppers with LED lighting, the collaboration with Sollum provides new opportunities to develop our knowledge. Their dynamic lighting solution offers an adaptability that can improve the efficiency of lighted pepper cultivation. This collaboration will focus on understanding the interplay between dynamic lighting and irrigation strategies, aiming to provide clear and

actionable insights for growers. As we've always strived to optimize crop productivity, this project promises to shed light on pivotal aspects of modern-day horticulture."

"Among the first questions we get from growers transitioning to dynamic LED lighting is how they should manage irrigation, especially as they play with the spectrum, dimming, etc." says Sollum's chief horticultural specialist Sam Soltaninejad "We're excited to work with

Delphy Improvement Centre on clarifying this point for greenhouse growers in the coming months."

As Delphy continues to build on its impressive five years of greenhouse LED lighting work in peppers, the research will also probe the effects of far-red light on pepper crop productivity and morphology. Highlighting the convergence of advanced technology and leading-edge agricultural research, this collaboration aims to offer insights into the symbiotic relationship between light and irrigation in pepper cultivation.

Emphasizing its continuous commitment to the greenhouse industry, Sollum Technologies recently launched the S.E.A.R.C.H. program in the United States. This initiative underscores Sollum's commitment to research, reinforcing its pledge to propel the agricultural sector with sustainable and revolutionary solutions.

Source: Sollum Technologies January 10, 2024 news release

AMA Horticulture named distributor for Terrazza MC

In a significant move for the green industry, Terrazza MC and A.M.A. Horticulture Inc. have announced a new distribution partnership. This expansion marks Terrazza MC's increased presence in the United States and Canada, focusing on nurseries,

plant growers, and landscaping businesses. The partnership brings Terrazza MC's patented brush technology, setting a new industry standard.

Dany Mestdag, CEO of Terrazza MC, said, "We are thrilled to enter the North American market. Our initial contact with A.M.A. Horticulture during Cultivate '23 in Ohio laid the foundation for this exciting collaboration. Working with A.M.A., who shares our vision for innovation and quality, is a significant step for us."





- Base spectrum, white/green and far Red separate controllable from climate computer
- ➤ Control your Red-Far Red ratio for optimal plant balance and crop length with end-of-day treatment
- ➤ Save up to 10% energy by selective white/green ➤ A true game changer on light efficacy and flexible application only when it's needed spectrum controls
 - eded spectrum controls



- 9 419 Seacliff Drive East, Leamington, ON N8H 3V7, Canada



.....



Cornelia (Connie) Bradt, managing director of A.M.A. Horticulture Inc., said, "We're very excited about bringing the Terrazza Geotex PRO to the North American market. This amazing machine will be a game-changer for greenhouse operators, landscapers, garden centers, and tree nurseries, helping them reduce labour costs and improve efficiency without

the use of chemicals. We eagerly anticipate expanding our Terrazza machine lineup in the coming months."

For more information, visit A.M.A.'s website or view: www.youtube.com/watch?v=Kf2l pkyC_GY

Source: AMA Horticulture January 5, 2024 news release

Tips for keeping banker plants as hosts to harmless aphids

ALBERTO G. HARDT

Nowadays, we understand that every living organism, be it a plant, insect, bird, microbe, or fungus, along with environmental factors such as humidity and temperature, plays a crucial role in maintaining ecological balance.

On the other hand, we must always keep in mind our ultimate goal: to produce plants of the highest quality, within the given time frame, spending the least amount possible and maximizing profits through high yield.

Aphids are a significant problem in tomato, sweet pepper and cucumber production causing serious damage that can bring big losses to your crops.

The enemy of my enemy is my friend

Aphidus colemani, a parasitic wasp that attacks aphids by the thousands, lays their eggs inside the host, thus killing it and at the same time breeding more and more. Because we appreciate what *A. colemani* does to the aphid, we must give them the best chances to reproduce and grow their population.

So we breed another kind of aphid, harmless to the crop, that *A. colemani* also likes to lay its eggs on. This chosen aphid (*Rhopalosiphum padi*) only lives in monocotyledon plants, which is why you can safely raise them in your greenhouse.

But how will you have *R. padi* if your crops are not monocotyledons? We grow what we call banker plants (oats, rye, wheat or barley), usually in hanging baskets, inside a cage or using hairnets to avoid parasitoid wasps from getting inside. We still don't need them at this point, it is important to establish a decent population of *R. padi* in the banker plants before exposing it to the *A. colemani*.

The banker plant system has this name because it is a continuous system. We need to sow new grass every week, to always have a new batch of *R. padi* born, and periodically these plants are distributed by the greenhouse so that the parasitic wasps



Figure 1 - A. colemani laying eggs in an aphid

A. colemani can lay their eggs on them. The monocotyledon aphid will be paralyzed, and in less than two weeks it will turn into a gold-brown mummy and about six days later a new A. colemani wasp will emerge, ready to lay an egg on each aphid they can find. Just one A. colemani wasp has the potential to lay up to 300 eggs in its lifecycle.

After your banker plants (that you are still breeding inside a plant cage) are fully infected with aphid (*R. padi*) and most of them are already a round gold-brown mummy, it is time for the system to move to the next step. Banker plants now should be hung in the greenhouse in a ratio of five per hectare, switching for new ones every seven days. From each of those mummies from the banker plant a new *A. colemani* will emerge, ready to lay their eggs – and kill – almost all the unwanted aphids in your cash crop. If done correctly, the result is healthier plants.

Keeping the constancy is key. In weeks the aphid population will start decreasing, but again, renew the strategy.

Five tips for success

When using biological control in your greenhouse:

• Keep it rolling -- it is a continuous need to control the aphid population. You won't



Figure 2 - *R. padi* in a monocotyledon plant



Figure 3 - aphid mummies parasitized by *A. colemani*



A banker plant in a Leamington, Ontario pepper greenhouse. *Photo by Marcella DiLonardo.*

be able to exterminate all of them.

- Banker plants must remain protected from the wasp while the *R. padi* population is still growing.
- The correct number of plants per area is critical with a minimum of two banker plants per acre, switching at least one of them weekly.
- Have a backup plan: have more than one cage breeding *R. padi*, perhaps in

different areas on your property.

• Take good care of your bankers in terms of irrigation, maintenance, light and humidity.

Alberto G. Hardt is a research associate with the Horticultural & Environmental Sciences Innovation Centre at Niagara College.



INSURANCE

Agricorp paid record \$10.43 million in 2023 claims to fresh vegetable growers

Main causes were precipitation, disease and flooding

Table 1.

Your risk:	Production Insurance	AgriStability	SDRM	RMP (livestock, and grains and oilseeds)
Large declines in net income		1	/	
Lost markets		1	1	
Increased costs		1	1	1
Lower market prices		1	1	1
Yield reductions and quality losses*	1	1	1	
General farm losses and expenses		1	1	

^{*}Caused by adverse weather, disease, pests, wildlife, or other uncontrollable perils

Table 3. Breakdown of 2023 coverage by commodity types (as of January 5, 2024).

Туре	Contracts	Acres	Liability (millions)	Claims (000)
Root	36	8,870	\$26.1	\$4,001
Fruit	59	6,753	\$29.3	\$5,587
Leafy	17	2,402	\$6.3	\$784
Other	12	730	\$1.1	\$62
Total	124	18,754	\$62.8	\$10,434

Table 2.

Acreage Loss for Fresh Market Vegetables (as of January 5, 2024)				
	2023	2022	2021	2020
No. of Customers	108	110	115	114
Acres	18,754	18,905	20,008	18,844
Total liability (millions)	\$62.83	\$56.98	\$56.63	\$48.02
Total premium* (millions)	\$7.40	\$6.82	\$5.75	\$4.53
Claims (millions)	\$10.43	\$4.27	\$10.01	\$6.31

^{*} Includes both government and customer premiums paid

Table 4.

Average	e Farm Yield Cov (as of	erage for Fro January 5, 20		tables
Crops	Contracts	Acres	Liability (millions)	2023 Claims (000)
Onions* and Carrots	27	1,780	\$10.8	\$1,515
Potatoes	25	4,110	\$20.2	\$337
Peppers	21	695	\$4.4	\$721
Total	73	6,585	\$35.4	\$2,573

^{*}Onions include seed, set and Spanish

Ontario vegetable growers are making important decisions about their business risk management options for the year ahead.

The programs that Agricorp deliver help growers protect their valuable businesses against risks such as large income declines, adverse weather, lost markets, and increased costs.

Different programs cover different risks. See table 1.

Growers can watch agricorp.com in the spring for 2024 program information.

More on production insurance

Production Insurance offers acreage-loss and average farm yield based coverage. Premiums are cost shared by government: the government pays 60 per cent of premium costs and 100 per cent of the administrative costs. Production Insurance was designed to keep premium rates stable, and rates have remained affordable when compared to the value of commodities that farmers are currently insuring.

Farmers have until May 10 to apply for or make changes to 2024 coverage. Farmers who participated in 2023 will receive renewal packages in March.

Acreage loss for fresh market vegetables

For acreage loss, growers can insure up to 37 fresh market vegetables and 113 crop classes on a per acres basis (versus total acreage).

This coverage offers:

• Lower premiums because growers can pool the risk for like crops into 4 different commodity types



- Flexible insured peril options (hail only, frost only, hail and frost, or multi-peril coverage)
- Abandonment threshold coverage
- Loss in storage coverage
- Graded harvest commodity coverage
- Unseeded acreage coverage
- Replant or salvage coverage

Table 2 looks at 2023 participation in acreage loss coverage, as of January 5, 2024. Note that participation has remained stable while the value of coverage (liability) increased by nearly \$15 million in the last four years. Premiums also remained stable and affordable with the government paying 60 per cent of the cost.

In 2023, there were record payments of more than \$10 million.

Table 3 shows a breakdown of 2023 coverage by commodity types (as of January 5, 2024).

The top three causes of loss paid were

precipitation (\$5.5 million), disease (\$3.24 million), and hail (\$858,000).

Average farm yield coverage for fresh market vegetables

This coverage gives growers a guaranteed level of production unique to their farm.

Coverage is based on comparing a grower's actual yields to their average historical yields for each crop.

Under this coverage, growers are covered for losses due to adverse weather, disease, pests, wildlife, or other uncontrollable natural perils.

Available coverage includes: unseeded acreage, replant, salvage benefit, and production loss.

Table 4 looks at 2023 average farm yield coverage. As of January 5, 2024, Agricorp has processed \$2.57 million in

total claims. The top three causes of loss paid on these plans were precipitation (\$1.9 million), disease (\$470,000), and flooding (\$114,000).

More on AgriStability

AgriStability provides whole farm coverage that is designed to cover large declines in net income caused by production loss, increased costs or market conditions.

It protects the income of the whole farm instead of one commodity at a time.

If a farmer's program year margin falls below 70 per cent of their average historical net income (reference margin), AgriStability helps to offset the difference. The compensation rate has increased from 70 per cent to 80 per cent. The Ontario government has provided this increased provincial portion since 2020. Starting in 2023, the federal portion is included. Farmers have until April 30 to apply or make changes.

More on SDRM

With Self Directed Risk Management for edible horticulture, growers establish an account with Agricorp to help mitigate risk associated with farm business.

Eligible growers would have received notices in September 2023. They can make a deposit into their SDRM account and the Ontario government will make a contribution.

The last day to make a deposit for the 2023 program year is February 1, 2024.

Source: Agricorp

SUSTAINABILITY

Syngenta Canada adds electric trucks to logistics transportation fleet

A fleet of Syngenta Canada electric trucks will roll through southern Ontario in 2024 delivering crop protection and seed products with zero CO₂ emissions. Working in collaboration with supply chain partner Future Transfer, Syngenta Canada will debut three electric trucks – marking a sustainability win and an industry first.

"By adding electric trucks to our logistics transportation fleet, Syngenta Canada will reduce CO₂ emissions by approximately 25,000 kg each year. This is equal to removing eight passenger vehicles from the road," says Jose Nucci, head, production and supply, Syngenta Canada. "As the first agricultural company in Canada to add electric trucks to its fleet, we're literally driving change and enabling Syngenta Canada to serve customers in a more sustainable way."

Electric trucks significantly reduce CO_2 emissions, and when compared to diesel, provide upwards of 90 per cent reduction. Delivering on the company's commitment to sustainability, the distribution of crop protection and seed products using electric trucks will begin in 2024 with

routes departing from Future Transfer's Tillsonburg, Ontario sites.

"This is an exciting time for agriculture and for our organizations," says Ron Thorner, national logistics manager, Future Transfer. His team not only provides Syngenta with distribution, warehousing, and production services, but is a strategic partner in delivering sustainability and innovations to benefit Canadian growers. "Partnering with Syngenta to serve customers with reduced emissions is a great step forward to achieving our shared sustainability goals," he says.

While agriculture is a key contributor to greenhouse gases (GHGs), it is also fortunately well positioned to be part of the solution to GHGs. Through new approaches, practices and technologies, everyone throughout the food value chain can play a role in reducing emissions.

"We are continually innovating and expanding how we operate in agriculture from digital technology, to products, to supply," says Trevor Heck, president, Syngenta Canada. "We strive to adopt a sustainability mindset in everything we do and

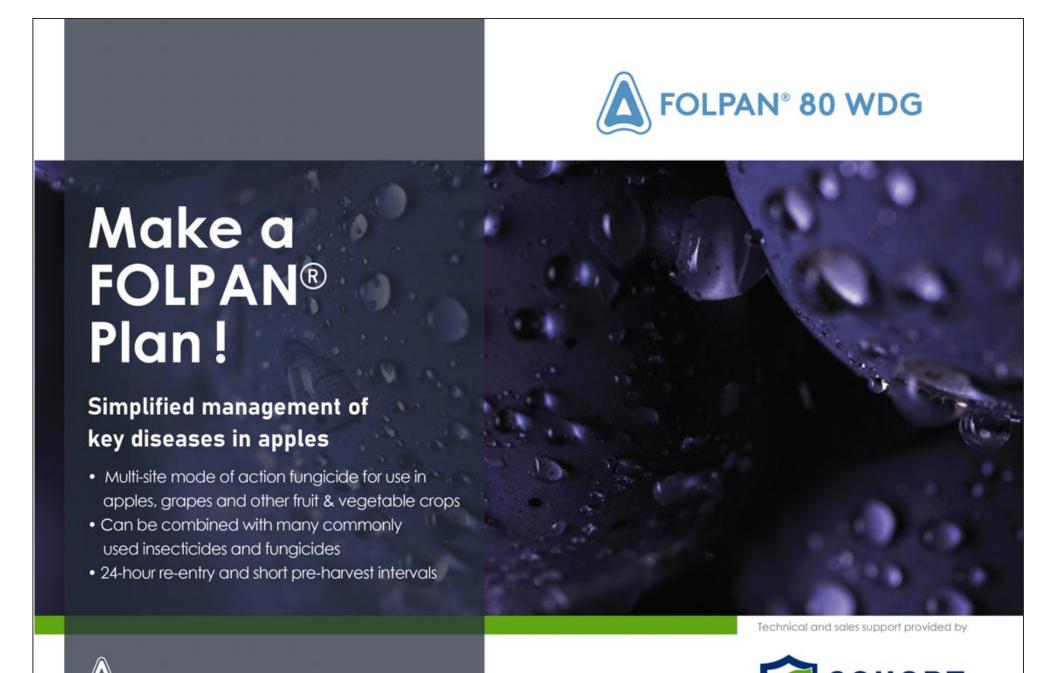


Syngenta Canada collaborated with Future Transfer to add electric trucks to its logistics transportation fleet. L to R: John Lansink, managing director, Future Transfer; Chan Perera, president, Future Transfer; Jose Nucci, head, production and supply, Syngenta Canada; and Trevor Heck, president, Syngenta Canada.

are driven by our vision to advance Canadian agriculture and offer solutions to our customers, but also as a business operating in Canada. Adding electric trucks to our fleet is just one of the ways we are

demonstrating our vision as we work towards Syngenta Group's global target of 38 per cent emissions reduction in our operations by 2030."

Source: Syngenta Canada January 18, 2024 news release



CohortWholesale.com

CHAIR'S PERSPECTIVE

Labour, communications and advocacy dominate 2023 board agenda



SHAWN BRENN

My first year as chair of this organization has flown by in what seems like a flash. It's been a busy 12 months, without ever a lull in the issues coming at us or the situations that need the involvement of the Ontario Fruit and Vegetable Growers' Association (OFVGA).

Here are some highlights from our many activities; as chair, I've been involved in most if not all of them in some capacity.

If you're a regular reader of The Grower, you'll know that labour has become an even higher priority file for the OFVGA in the last 12 months. We've continued to build on the success of our More than a Migrant Worker (MTAMW) initiative, completing more worker profiles, releasing and promoting news stories that answer questions Ontarians have about international farm workers, and making sure that growers, workers and the horticulture sector are part of the public discourse around temporary foreign workers.

We also added proactive outreach to politicians and bureaucrats. In the past year, we've met with dozens of elected provincial and federal officials, as well as government staff to give them an overview of this initiative, share horticulture's labour story and let them ask questions of our team.

In 2023, OFVGA was invited for the first time to send a delegation to the Seasonal Agricultural Worker Program (SAWP) annual review meeting that includes representatives from Caribbean countries, Employment and Social Development Canada (ESDC), Fruit & Vegetable Growers of Canada (FVGC) and F.A.R.M.S. I was lucky enough to be part of that delegation and it was an eye-opening and useful

experience as we continue to work on strengthening our relationships with countries who have been reliable partners to Ontario in the offshore worker programs for decades.

We've also been developing a pilot project with El Salvador that will see the first workers from the country come to Ontario farms in the spring of 2024. This is part of our efforts to open up new labour sources for growers in this province.

We hosted another successful in-person advocacy day at Queen's Park this past year and are in close communications with key provincial ministries throughout the year on issues relevant to growers. Our goal, as always, is to make decision-makers and their staff aware of the fruit and vegetable sector, our needs and wants, and how we can collaborate to meet the objectives of both growers and government.

Key issues include increasing funding for Business Risk Management programs, reducing the burdens related to **Environmental Compliance** Approvals, pushing for a refreshed focus for the Foodland Ontario program, representing fruit and vegetable growers on

land use planning and urban sprawl, and monitoring emerging issues, such as expansion of the federal ban on single-use packaging.

In support of Fruit & Vegetable Growers of Canada (FVGC), we were active on several federal files this past year, including Underused Housing Tax, Bill C-234 on carbon tax exemptions, Bill C-280 for financial protection for growers, and Bill C-282, which prohibits future trade deals that increase foreign access to supply managed

Behind the scenes, we've spent considerable effort this year on a comprehensive governance review and by-law update. Our governance committee, supported by staff, have put an incredible amount of thought and work into reviewing and updating our bylaws to reflect the changing realities of our sector and ensure our organization is compliant with changing government legislation.

In addition to the More than a Migrant Worker initiative, we've also started ramping up our broader public communications efforts. Our first sponsored content story about sustainability

in Ontario's fruit and vegetable sector ran in the National Post last fall, along with digital ads on urban panels and billboards and posters in 100 GO Train cars.

We also hosted our first farmtour day for government and industry staff to introduce them first-hand to the issues and realities of fruit and vegetable production. Our farm, which grows potatoes and other vegetable crops, was one of the stops on the tour, along with a vegetable greenhouse and a vineyard. It was a great opportunity to interact with government policy staff, while discussing topics specifically related to the horticulture sector.

It's been a busy, engaging and fulfilling first year for me in the role as your chair and it truly wouldn't be possible without the tremendous support from my fellow board members and the OFVGA staff. It's rewarding to work with such an engaged and committed team, and I'm very proud of all the things we've been able to accomplish this past year.

Shawn Brenn is chair, Ontario Fruit & Vegetable Growers' Association.

WEATHER VANE



Leadership transitions are under way across Canada during the winter round of meetings. It's an opportune time to spotlight the hours of devotion to horticulture. One example is apple grower Cathy McKay who recently stepped down as chair of the Ontario Apple Growers. Her characteristic optimism for the future is captured here at her Nature's Bounty Farm near Port Perry, Ontario. Photo by Glenn Lowson.

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

All rights reserved. The contents of this publication may not be reproduced either whole or in part without the prior written consent of the publisher.

355 Elmira Road North, Unit 105 Guelph, Ontario NIK IS5 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

ONTARIO FRUIT AND VEGETABLE GROWERS' **ASSOCIATION BOARD OF DIRECTORS 2023**

MANAGEMENT COMMITTEE n Brenn Waterdown

Mike Chromczak, Brownsville
Matthias Oppenlaender, NOTL
Joann Chechalk, St Anns
Morris Gervais, Springwater Vice-chair

BOARD OF DIRECTORS

Grape

Processing Vegetables

Apples Fresh Veg other Tender Fruit Cathy McKay, Port Perry Dave Enns, Niagara-on-the-Lake Mike Chromczak, Brownsville Asparagus Matthias Oppenlaender Fresh Veg muck Quinton Woods, Cookstown Shawn Brenn, Waterdown Small Fruit/Berries Glen Gilvesy, Tillsonburg Jan VanderHout, Dundas Ginseng Greenhouse Greenhouse George Gilvesy, Tillsonburg

Tracy Gubbels, Mount Brydges

OFVGA SECTION CHAIRS

Crop Protection Environment and Conservation Labour Safety Nets Energy, Property, Infrastructure and Food Safety

Brian Rideout Jan VanderHout Bill George Mike Chromczak

Brian Gilroy



Cantaloupe controversy underlines need for vigilance



OWEN ROBERTS

I trust our food system. I don't approach grocery shopping with fear or suspicion; rather, I marvel at the privilege we have here for selection and quality, compared to many parts of the world. Although food prices have jumped and become consumers' top concern, overall, we still get a good deal.

And who doesn't like a deal? But before Christmas, naively choosing price over safety could have ruined my holiday, or much, much worse.

In mid-December, at the grocery store I frequent in Illinois, I was surprised to see fresh-cut cantaloupe on sale in clamshell packages for 40 per

cent off.

I love cantaloupe; there's no way I was going to pass this up. I figured it must be some holiday special.

And it didn't occur to me until I got home and took the first delicious, juicy bite that perhaps this cantaloupe was on sale because people weren't buying it.

That stopped me in my tracks. Even though I spend an hour every day reading news, I had overlooked that fact that earlier in the fall, cantaloupe from Mexico tainted with Salmonella had sickened hundreds of people in 42 states in the U.S. (including Illinois), and in eight Canadian provinces. This outbreak would go on to be blamed for eight deaths in the two countries — seven in Canada and three in the U.S.

Québec was the hardest hit, with 111 of the 164 laboratory-confirmed cases in Canada. Class action lawsuits have now been filed in Manitoba against the Mexican company Malichita that grew the melons, and two U.S,firms: Trufresh in Nogales, Arizona and Los-Angeles-based Dulcinea, that imported and distributed the fruit. A class action lawsuit in Québec names

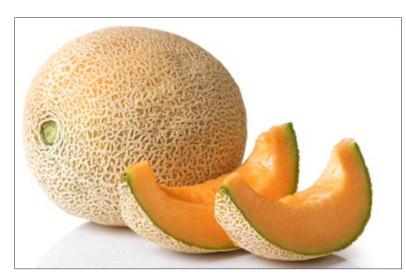
Malichita and Trufresh only. And at press time, another lawsuit was expected to be filed in B.C.

Both the U.S. Center for Disease Control and the Canadian Food Inspection Agency say the true number of sick people in this outbreak was likely much higher than the number reported. Many people recover without medical care and are not tested for Salmonella. And because it usually takes up to four weeks to determine if a person is sick from Salmonella, the chronology of an outbreak can be inexact.

So what's behind the contamination? In a statement to the Canadian Press news agency, Trufresh CEO Rafael Roiz offered his sympathies and said he's searching for answers.

"We realize that no words will be of comfort to the people and their families who have felt its greatest impact," he said. "We continue to work with our suppliers, customers and health authorities to investigate how the contamination may have happened."

Cantaloupe's textured surface can be tough to clean, making it easier for naturally occurring bacteria such as Salmonella to



cling to it. Processors take precautions, such as vigorously washing it and scrubbing it once it's harvested.

But cross-contamination can still occur along the processing chain, and bacteria can enter the fruit's flesh when it's cut.

Some food safety experts advise consumers to buy intact cantaloupe, wash it and avoid fresh-cut options. But for convenience, fresh cut is very attractive...provided, of course, it was properly handled during processing.

Exporters are keenly aware of the damage such outbreaks can cause the sector. As a top-of-mind issue for consumers, food safety routinely takes a backseat to the likes of food prices and food security these days.

The cantaloupe controversy returns the spotlight to food safety and underlines the need to stay relentless in its pursuit. I haven't lost faith in the food system, but I will be a little more wary when deciding what to put in my shopping cart.

Owen Roberts is a past-president of the International Federation of Agricultural Journalists and a communications instructor at the University of Illinois.



TO CONTROLLED ENVIRONMENT AGRICULTURE (CEA)

The B.C. Centre for Agritech Innovation (BCCAI) is pleased to announce, with generous support from Pacific Economic Development Canada (PacifiCan) and the Province of British Columbia, a special Agritech Innovation Funding Opportunity for Controlled Environment Agriculture (CEA).

BCCAI has allocated up to \$4 million in funding to accelerate the growth of BC's CEA by de-risking the development and adoption of agritech. The project budget will range from \$200,000 to \$1 million. Registration for the call is now open and applicants have until February 16, 2024, to submit Expressions of Interest.

This call is open to agritech companies, technology developers and providers and CEA operators to support a new or adapted technology to improve CEA facilities' efficiency and productivity. To be eligible, the applicant must:

- → be for-profit or non-profit organizations or cooperatives in BC.
- → have up to 499 employees.
- have project collaborators that are small and medium enterprises, agri-businesses and farms, post-secondary institutions, Indigenous communities, or government.

The call will support innovation projects contributing towards integrating CEA operations with engineering and technologies, such as internet-of-things (IoT) sensors, artificial intelligence (AI), driven data analytics, robotic automation, and agriculture biotechnology to help the industry adopt advanced smart automation, precision farming, sustainable energy solutions, and biological pest control and, etc.

Visit sfu.ca/agritech-innovation to learn more.

THE GROWER

FARM & FOOD CARE ONTARIO

2023 year in review



Georgian College students toured Barrie Hill Farms' apple orchard as part of farm tours organized by Farm & Food Care Ontario.

JESSICA McCANN

Thanks to the support of platinum member, Ontario Fruit and Vegetable Growers' Association (OFVGA), Farm & Food Care Ontario (FFCO) and its partners were able to execute some major projects in 2023 that brought fruit & vegetable growers, food producers and agribusinesses together with urban and suburban consumers to interact, answer questions and learn more about what it means to be a grower in Ontario.

Platinum members are foundational to FFCO's success in building public trust in Ontario agriculture. This year FFCO and OFVGA partnered on many inperson activities as well as virtual initiatives to spark conversations and answer consumer questions about fruits, vegetables and migrant workers in Ontario. Nicki Scott represents the OFVGA and the Ontario Potato Board (OPB) on the FFCO board of directors.

More Than a Migrant Worker

In 2023, FFCO staff interviewed seasonal workers, growers and others to create 50 new profiles at 10 different Ontario farms. Across these photo/video and interview shoots both organizations have added a huge amount of new interview footage, and photo content to their digital libraries. Thank you to Meyers Fruit Farm, Chromczak Farms, Malivoire Wine Company, Schuyler Farms, Brenn-B Farms, Sandy Shores Farms, Haist Family Farms, Cherry Lane, TamBerry Farms and C & J Ginseng for participating.

The MTAMW project was awarded Best Blog in November 2023 by the Canadian Agri-food Marketers Alliance Best of CAMA awards. Since its inception in 2021, about 200 workers from across Ontario have been interviewed for the project with their stories featured in newspapers, on Facebook and Instagram, on Go transit ads, in

advertisements and on the www.morethanamigrantworker. com website.

On behalf of the MTAMW project the FFCO team joined OFVGA at the Friends of Norfolk Soccer Tournament. At this community event OFVGA and FFCO had the privilege of chatting with many seasonal workers both at the tournament and then following up with several players for interviews at the farms they work at.

Farm tours

2023 was an exceptional year with a record 10, on-farm tours taking place across the province. Of these, eight featured Ontario fruit and vegetable growers. Tours for food influencers and chefs showcased a pear orchard, asparagus farm, vineyard and the Ontario Food Terminal. Another tour for federal government employees took guests to a tomato and cucumber greenhouse.

FFCO also hosted four tours for culinary students: three visited fruit and vegetable farms highlighting the production of micro greens (greens, lettuce and herbs), carrots, onions, apples and berries.

Culinary tour participants were surveyed on their knowledge about and perceptions of Ontario agriculture before and after each tour. When asked about their impression of Ontario agriculture before their tours, 65 per cent responded good or excellent, while the post-tour survey results showed an increase to 93 per cent who responded good or excellent. This shows the value of an inperson tour experience.

Breakfast on the Farm

Three Breakfast on the Farm (BOTF) events were held including Huron County (dairy and beef farms), on a Napanee dairy farm and on a Brussels sprouts farm in Pain Court, near Chatham. Here is where Canada's largest Brussels sprout producer highlighted highlight the importance of Ontario fruit and vegetable production to

urban and suburban visitors.

Partnering with OFVGA at these events also opened conversations with the general public about seasonal workers in Ontario. More than 3,300 guests attended the three BOTF events.

Digital outreach

Digital outreach plays a key role in FFCO's work. The online Faces Behind Food campaign told the stories of 79 individuals from a diverse cross-section of commodities and answered 38 Ask a Farmer questions while garnering more than seven million impressions on Instagram and Facebook.

Two new FarmFood360 Virtual Reality tours were launched in December 2023 of an Ontario berry and dairy farm. These tours are the most recent additions to a growing collection of virtual reality farm and agribusiness tours available at www.FarmFood360.ca. Traffic to www.FarmFood360.ca continues to grow, with the project generating more than 3.5 million impressions in 2023.

In 2023 FFCO, in partnership with AgScape, hosted 17 virtual field trips. Seven of these tours featured Ontario fruit and vegetables including an Ontario mushroom farm, berry farm, asparagus farm, crab apple farm, hydroponic facility, cherry farm, and a strawberry farm. These virtual events continue to be a unique and accessible way to bring agriculture to audiences across Canada. FFCO and AgScape will continue to offer these tours throughout 2024 and are looking for farmers interested in hosting them.

The Real Dirt on Farming

FFCO unveiled the sixth edition of The Real Dirt on Farming in November 2023. The booklet is available in English and French. In early 2024, a digest version will be available, a digital educator resource will be released next winter by Agriculture in the Classroom Canada, and a new 4-H manual is in development by 4-H Ontario.

This edition answers questions on the topics of food costs, food safety and food labelling. It discusses the use of pesticides, climate change, growing crops indoors, plant breeding sustainability and more. More than five million copies of The Real Dirt on Farming have been distributed since 2006.

Training and workshops

FFCO continues to offer media and Speak Up training. There were 46 presentations and training sessions facilitated in 2023 and continue to be available for member organizations and industry groups with commodity-

specific content created for each.

To learn more

Visit www.FarmFood CareON.org and subscribe to the monthly e-newsletter. Comments and questions can always be directed to FFCO staff directly at info@farmfoodcare.org

Jessica McCann is communications coordinator, Farm & Food Care Ontario.

COMING EVENTS 2024

C	OMING EVENTS 2024
Feb 1	New Brunswick Potato Conference, Woodstock, NB
Feb 5-7	Alberta Irrigation Districts Conference, Lethbridge, AB
Feb 5-9	Global Minor Use Summit IV, Madrid, Spain
Feb 7	Spray Smart Deep Dive, Grandway Events Centre, Elora, ON
Feb 7-9	Fruit Logistica, Berlin
Feb 11-14	International Fruit Tree Association Annual Convention, Yakima, WA
Feb 13	Canada's Agriculture Day
Feb 16	BC Cherry Association Annual General Meeting, 2 pm, Penticton Trade and Convention Center, Penticton, BC
Feb 16-17	Southern Interior Horticultural Show, Penticton Trade & Convention Centre, Penticton, BC
Feb 20	Ontario Fruit & Vegetable Growers' Association Annual General Meeting, Niagara Falls, ON
Feb 20	Berry Growers of Ontario Annual General Meeting, Niagara Falls, ON
Feb 21	British Columbia Fruit Growers' Association Annual General Meeting, Ramada Inn, Kelowna, BC
Feb 21-22	Ontario Fruit & Vegetable Convention, Niagara Falls Convention Centre, Niagara Falls, ON
Feb 22-23	International Potato Technology Expo, Eastlink Centre, Charlottetown, PE
Feb 29	Ontario Potato Conference & Trade Show, Delta Hotel, Guelph, ON
Mar 5	Tomato Day, Bradley Centre, Chatham, ON
Mar 5-7	Fruit & Vegetable Growers of Canada Annual General Meeting, Westin Hotel, Ottawa
Mar 12-14	GreenTech Americas, Santiago de Querétaro, Mexico
Mar 17-23	Canadian Agricultural Safety Week
Mar 18-20	Minor Use Priority Setting Meeting, Gatineau, QC
Mar 20-21	Ontario Hazelnut Symposium, Legion, Tilsonburg, ON
Mar 28	Ontario Processing Vegetable Growers Annual General Meeting, Four Points by Sheraton, Chatham, ON
April 3-4	Grower Information Days, Muck Crops Research Station, Bradford, ON
April 11	Farm & Food Care Ontario Annual General Meeting, Grandway Events Centre, Elora, ON

April 23-25 Canadian Produce Marketing Association

Convention & Trade Show, Vancouver, BC

Climate change impacts relationships with customers



PETER CHAPMAN

What is global is local. At press time, January 16-19, 2024, the Intergovernmental Panel on Climate Change (IPCC) is meeting in Istanbul, Turkey to decide on the roadmap ahead. The UN-sponsored group, with representatives of 195 countries, seems to move at glacial speed, unlike the climate changes they are studying.

For primary producers, climate change and the impact on their business is immediate. From wildfires in British Columbia to floods in Nova Scotia in 2023, the issue is relevant in terms of replacing infrastructure at higher insurance costs. On an ongoing basis, producers must mitigate these risks to maintain a sustainable business.

With this backdrop, producers must not only manage these weather events but communicate to retail customers how they will manage into the future. There are three things retailers focus on: quality, cost and continuity of supply. Certainly, there are others but most often, these are the big three. The changes to the climate are impacting all three of these factors.

Retailers prefer to work with suppliers who bring solutions to the table, not just more problems.

Explain the impact to their business

When talking to your customers, remember that they don't want to live the roller coaster ride of primary production. They have their own problems to worry about.

When you can explain the impact of climate change on their business, in their terms, you will get a better response and a willingness to work on the solutions.

Quality

There is no doubt changes to the climate will have an impact on what you produce. Varieties that have been bred to perform in 2020 might not be performing the same in 2024. Retailers can get focused on varieties and not understand that the same variety does not perform as well in a different region or with climate change. You can explain this, but to deliver the message in their

terms, you will need to show them. You might have a new variety or even an older one that tastes and performs better. If possible, get them samples of both and let them see and taste the

Quality can also be impacted by climate change. Producers have to learn to grow and harvest differently. If you are experiencing these types of challenges, the sooner you can let your customers know the better.

Develop relationships with the Quality Assurance (QA) team so you can have informative discussions with them too. The category managers or merchandisers are your primary point of contact, but the QA group is important in the decision-making process. You might consider sending them some samples in advance to let them decide before you send a full load.

Product cost

There are a number of impacts on product cost that climate change can affect. The biggest is likely marketable yield, as specific varieties do not produce at the same rate you expect. There are also new pests or diseases that appear which were not hurting your crop a few years ago. The changes in weather pattern might be changing how you harvest, adding to costs. Inputs are changing and it seems like the new ones are always more expensive than the old ones.

All of these factors will impact the cost of your product. We all know the tone of conversations about surging costs in our industry. Retailers have been in the media spotlight, blamed for food inflation. That means they are more defensive about their position and more aggressive with suppliers about increasing costs. Granted, perishable produce is different than the center of the store with packaged goods, but retailers are sensitive about prices.

To have the conversation in terms the retailer can appreciate, you might have to propose a new product size. If your marketable yield of their size spec has changed, you might get them to agree to a wider spec that allows you to keep the price constant.

Another discussion point should be input costs. You can explain that in a previous year, the input cost per packed pound was a certain number. This year with more expensive inputs, to ensure you have product for them, these inputs represent .25 per packed pound compared to .15 last year. Talking about chemical ABC that is \$1,250 per hectare means nothing to them. When you explain to them what the impact is using a metric they understand, your communication is more effective.



Continuity of supply

Retailers need product to sell. They want to run inventory as tight as possible because too much inventory costs money and can lead to more shrink. They also get very upset when people do not have product for them. In other words, shorting orders is a bad thing!

A changing weather pattern can lead to issues with continuity of supply. You might not have as much, it might be at a different time or worst-case scenario, nothing at all. Sudden weather events can also lead to different sizes and a product with a different appearance. These last two issues might not impact the eating experience, but your products might look different.

The most important factor when communicating about these

issues is how much you will have and when. The sooner you can let customers know if you will not have what they want, the better. Give them options as opposed to waiting until the last minute to tell them something you probably knew hours or days earlier. They want to buy from you so let them know in advance and they will probably come back to you. If you leave it too late and they are out of stock, they will be less likely to come back to you in the future.

This is a more challenging environment to work in but you still need good relationships with your customers. My experience, when I worked for a retailer, was that there were certain suppliers I would trust more than others. These were the people who were up-front and honest, but they also took the time to understand my

business. They would explain current events to me in a language I could understand and they figured how the situation impacted what I was trying to do, not what they were trying to do.

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.





Researching the best for our customers since 1881



ORANGE FANCY

Long nantes type carrot that makes a very cylindrical cello. Remains smooth with orange. Excellent for fresh the rounded end in mineral soil and black earth.

Extra large blocky, smooth fruits that mature bright

market use. Improved

yield and fruit quality.

Jumbo berlicum type carrot, cylindrical and smooth. Excellent performance in mineral

soil as well as black earth

NYQUIST

55 days. A high quality fresh market bean. Pods are very uniform, long, straight, and very dark green in color.

- Quality Seed Since 1881 -

T: 1-800-263-7233 | www.stokeseeds.com | Box 10 Thorold ON L2V 5E9

SEED EXPERTS FROM COAST TO COAST:

Paul Banks ON, NS 905-688-4300

Alexandre Bisson 438-334-1996

Leah Erickson AB, BC 604-957-2359

519-580-3231

Marc André Laberge 514-984-4589

Darcy Leiter AB, MB, SK 306-491-6485

Amélie Lepage 514-984-0662 **Emily Robins** 905-308-4396

Bridget Visser ON 905-715-8595

FOLLOW US:







What's happening at the 2024 show

KICK-OFF PARTY



Feb 20, 8 pm – 11 pm.

New this year, OFVC is hosting a casual get-together for exhibitors and convention goers the night before the official opening. The event follows the Ontario Fruit and Vegetable Growers' Association banquet.

The Back Bar – TGI Fridays Restaurant Wyndam Fallsview Hotel Lower Lobby 6455 Fallsview Blvd., Niagara Falls, ON (across the street from Fallsview Casino)

REGISTRATION



For the best value, register for the package of your choice -- two day, single day, trade show only, student pricing. New this year is a family discount. Purchase two 2-day registrations at full price and receive 15% off the 3rd, 4th and 5th full conference registration. Early bird pricing ends on February 14 at 6 pm.

After Feb 14, registration costs increase. On-site registration is available by credit card only. No cash sales.

Go to: www.ofvc.ca

ONTARIO CIDER COMPETITION



The Sweet Cider Competition is slated for January 31 off-site at the Simcoe Research Station. Winners will be announced on February 21.

The categories are: modern cider, specialty cider, traditional/heritage cider.

WOMEN IN AG BREAKFAST



Feb 22, 8 am - 9:15 amThe Lounge

OFVC offers a forum for women's perspectives in horticulture. This year's guest speaker is Alison Robertson, executive director of the Ontario Fruit & Vegetable Growers' Association. All are welcome. Pre-registration is required.



What's happening at the 2024 show

YOUNG FARMER LUNCH & LEARN

Feb. 22. 12 pm – 1:30 pm The Lounge

The under-40 crowd is invited to a speed-dating format with industry experts. Ask your most pressing questions about how to move forward in 2024. A light buffet lunch is served. Pre-registration is required.



POSTER DISPLAY

Two competitions – one regular, one student – spotlight horticultural research by a network of seasoned experts. Content ranges from research trials on pest management to crop production and new cultivars.



EDUCATIONAL SESSIONS



A key draw is the exceptional range of presentations from North American experts. Here's a sampling of in-depth subjects: apples, berries, garlic, grapes, sweet corn and cucurbits, tender fruit, tree nuts, vegetables.

TRADE SHOW



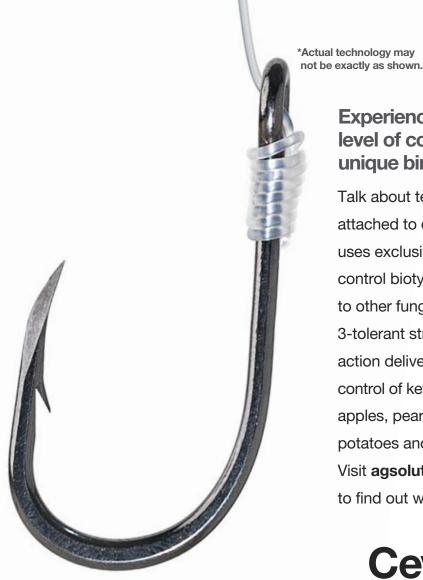
Two acres of exhibit space feature horticultural products and services. Browse and network with input suppliers and fellow growers.

HOSPITALITY



Drop by for a cooler! Staff of the Ontario Fruit & Vegetable Growers' Association and The Grower look forward to visiting with you at Booth #809.

Get hooked on rapid disease control.*



Experience a new level of control with our unique binding action.

Talk about technology you'll get attached to quickly. Cevya® fungicide uses exclusive binding activity to control biotypes that may be resistant to other fungicides, including Group 3-tolerant strains. This hook-like action delivers fast and continuous control of key diseases in grapes, apples, pears, stone fruits, potatoes and vegetables.

Visit agsolutions.ca/horticulture to find out what it can do for you.

> Cevya® Revysol® Fungicide

🗆 - BASF We create chemistry

Always read and follow label directions.

AgSolutions, CEVYA and REVYSOL are registered trademarks of BASF; all used under license by BASF Canada Inc. CEVYA fungicide should be used in a preventative disease control program. © 2024 BASF Canada Inc.

FOCUS: ONTARIO FRUIT & VEGETABLE CONVENTION

Exhibitors bring their newest to the show

Ontario Fruit and Vegetable Convention



Glenna Cairnie, general manager, OFVC.

The Cider Keg



Cheryl Peck, right, pours a sample with Sue Aker looking on. Photos by Marcella DiLonardo.

Hindle's Clarksburg Hardware



James Hindle demonstrates his pruning equipment.

KAREN DAVIDSON

In its 21st year, the Ontario Fruit & Vegetable Convention (OFVC) carries on a tradition of sharing knowledge through the trade show, commodity-specific seminars and networking events. Demand for booth space has outpaced pre-pandemic levels to the extent that a bigger footprint has been booked. More than 200 exhibitors will be bringing their wares – and software.

"One of the biggest changes over the years has been the addition of companies with specific software for horticulture," says Glenna Cairnie, general manager since September 2007.

The first convention was held in 2003 at Brock University in St. Catharines, Ontario. Over the years, it's been organized by the Niagara Peninsula Fruit & Vegetable Growers' Association. Due to its successful growth, the convention moved in 2012 to its current spacious location, the Niagara Falls Convention Centre in Niagara Falls. Once again, long-standing exhibitors and dozens of first-time exhibitors will fill the trade show hall.

"There's a core base of 70 exhibitors who are faithful in registering every year," says Cairnie. "They are old friends now. And I should point out they are serving a third generation of growers."

Over the years, Cairnie has witnessed more efforts into booth design that adds to the professionalism of the trade show.

Companies are expanding their reach in the horticultural sector whether that's by region or by commodity.

For a preview, read about what these four long-standing exhibitors are bringing to the biggest show in years.

The Cider Keg

"This is a fantastic atmosphere to network with our farm market customers," says Cheryl Peck, owner, The Cider Keg, Vittoria, Ontario. "We have a personal relationship with our wholesale customers, many of whom have on-farm retail markets. They are here to attend the Farm Fresh Ontario seminar and annual general meeting."

A sample of non-alcoholic cider is always at the ready, cordially paving the way for a conversation about future business. This isn't the place where orders are written up for the year. It's the door opener for measuring the economic temperature and how any expansion plans are shaping up for 2024.

Look for two new flavours in the booth: cranberry-raspberry for spring and spiced apple for fall.

Hindle's Clarksburg Hardware

James Hindle has been in business for 52 years near Clarksburg, Ontario and has missed the show only three times in its existence due to weather or family circumstances.

"It's been one of the highlights," says Hindle. He's proud to be bringing a made-in-Japan privately labelled pruner to the 2024 show.

"It's ambidextrous and will work well in a smaller hand," he says. "It has the leverage to be used in apples, grapes or shrubs."

Well-known in Ontario orchard circles, Hindle will ship orchard supplies to Québec and Maritime growers.

Wellington Produce Packaging

"Dad says that he has been going to Niagara for a convention since the early '80s, but that it was under a different name," says Adam Hincks, Wellington Produce Packaging, Mount Forest, Ontario. "From memory there were a few smaller shows that joined together to become the OFVC. It's been a while!"

OFVC is the best opportunity to see many customers under one roof, and it's a great time of year to prepare and discuss new options for the year ahead, says Hincks.

Wellington Produce Packaging is expanding the lineup of plastic clamshell alternatives with compostable cardboard options. Currently these are being trialed for berries, mushrooms, greenhouse tomatoes, and other smaller fruits with great results.

For more information on signing up for a trial, link here:

- www.wellingtonpp.ca/ packaging-in-development
- products.wellingtonpp.ca/ berry-baskets-and-masters/berrybaskets/1-litre-single-handledbasket



The Intelligent Spray Application® (I.S.A.) from Hol Spraying Systems increases the efficiency of the H.S.S. CF series orchard sprayers. With the three innovative detection sensors on each side placed on the spray tower, the leaf mass is detected in real-time. In combination with GPS, the growing power of the planting can be harnessed, and untreated trees become a thing of the past.

Benefits:

- Saving on water, crop protection products and fertilizers compared to a machine without I.S.A.
- Filling less often; a larger surface can be treated with one tank mix
- A higher deposition of the product in the crop

905.563.8261 | 1.800.263.1287 | info@provideag.ca | www.provideag.ca Beamsville, ON, Canada

Exhibitors bring their newest to the show

Wellington Produce Packaging



Paul Hincks staffs the company booth in Niagara Falls.

Strawberry Tyme Farms Inc.

The Cooper family operation is unique in that three generations now attend the Ontario Fruit & Vegetable Convention. It's hard to know if they are the longest-attending exhibitors. Ask patriarch Gary Cooper who attended the trade show in the 1980s when it was still held in Toronto!

"We like the opportunity to network and to make contact with existing customers and new customers," says Dalton Cooper, the third generation along with brother Mason. The two grandsons have attended the convention for the last six years.

Based near Simcoe, Ontario, the farm is known for its sales of bareroot strawberry plants, bareroot long-cane raspberries Strawberry Tyme Farms Inc.



Three generations are pictured in front of the Strawberry Tyme Farms Inc. booth. L-R: Dalton, John, Gary and Mason Cooper.

and asparagus crowns as well as fresh strawberries and raspberries.

Always innovating, the operation has finetuned management of tabletop strawberries for the fresh market. Now at 15 acres under tunnels and 10 acres uncovered, the day-neutral strawberries are available for market from late May to first of November. They are shipped to local markets, the Ontario Food

Terminal, and to the Vineland Growers' Cooperative for distribution to major grocers. Continuity of supply is important, so they still tend to June-bearing strawberries to fill any gaps.

"Tabletop strawberries are difficult to trial one acre at a time," explains Cooper. "Compared to field berries, the production system requires different fertigation equipment and a sprayer to navigate the narrow rows. It's like having livestock. The strawberries need to be fed every day, and often several times a day."

The benefits are in reduced labour costs and the fact that workers appreciate standing up to cut runners or to harvest. Rain downpours don't affect quality or harvest times of strawberries grown in tunnels.



Powdery Mildew? Get Gatten!

Gatten® fungicide

Gatten® acts on multiple stages of powdery mildew development, delivering both preventative and post-infection control.



Technical and sales support provided by

NICHINO

Aways read and follow lobel directions. Gatten[®] is a registered trademark of OAT Agric Co., Ltd. Copyright ©2021 Nichino America, Inc CohortWholesale.com



FOCUS: ONTARIO FRUIT & VEGETABLE CONVENTION

Three approaches in housing for temporary foreign workers

KAREN DAVIDSON

Jake Neufeld, Leamington, ON

In 2022, Vine Fresh Acres replaced a third of its housing, building new accommodations to house 72 temporary foreign workers (TFW). More than 200 Mexican, Guatemalan and Filipino workers are employed year-round for the pepper and cucumber greenhouses.

"Just as the company has grown, so have our housing needs," says Jake Neufeld, owner, Vine Fresh Acres Ltd., Leamington, Ontario. "Our older bunkhouses needed to be renovated. We needed to find new space."

A local company built the pre-engineered units which can house up to eight people per sleeping area. This area is subdivided into cubicles for privacy. Adjoining the bunks is a spacious showering area.

All workers enjoy a central, stainless steel kitchen with gas stoves. A walk-in cooler is provided as well as locked pantry space for each individual.

No builds are planned for 2024 but further expansion is likely in the future.



Pre-engineered units include a state-of-the-art, stainless steel kitchen that's easy to tidy. Photo by Marcella DiLonardo.

Mike Chromczak, Brownsville, ON

With the Jamaican flag at full mast over the modular homes of temporary foreign workers, it doesn't take much imagination to rename this Brownsville, Ontario farm: Jamaicaville.

"The COVID crisis was a wake-up call and an opportunity to make some changes," says Mike Chromczak, asaparagus and watermelon grower. "I looked at air quality, comfort and amenities through a different lens."

It took a year to build the five homes for 28 workers, taking advantage of provincial grants for air filtration systems and other improvements. Each home comprises four bedrooms, two bathrooms, a fully equipped kitchen and living area. Laundry facilities are under the same roof.

"The standard of living has improved dramatically with access to Starlink internet and satellite TV," says Chromczak. "Our workers are very happy with their accommodations."

"I know there is value in the health, safety and happiness of our workers," he continues. "It can't be quantified like you would with a new grading line."

The modular route had more than one benefit. It was quick to build to generate invoices to qualify for grants. But they are also a liquid asset. If required, they can be moved to another location.

Already in use for three seasons, these homes replace two school portables and two mobile homes.





Photos by Glenn Lowson



It smells great when the guys are cooking in here.

~ MIKE CHROMCZAK







Three approaches in housing for temporary foreign workers

Martin Gibouleau, Laval, Québec

Over the years, Les
Productions Margiric Inc. has
built new housing to
accommodate 280 temporary
foreign workers for their
vegetable and cantaloupe
operations near Laval, Québec.
Currently, the Mexican and
Guatemalan workers are housed
six per unit with access to a full
kitchen. When it comes to unit
assignments, workers from home
regions are kept together
respecting their cultural
differences and food preferences.

"We have learned over the years how important it is to respect workers who want to live together," says Martin Gibouleau, co-owner, Les Productions Margiric Inc. "We don't mix Mexicans and Guatemalans. And we find out what regions they come from."

New workers are paired with returning workers so there is someone to mentor them. Only one new worker is introduced per unit. Workers with different job functions – supervisors, tractor operators – live with their work crews.

The biggest resource that's offered to the workers is the onsite human resources office which is staffed from 8 am to 9 pm, five days per week. Two Spanish-speaking staff members are available to answer questions to a myriad of concerns. There may be health issues or family issues back home. Or the need may be as simple as aid requested to fill out government forms. This is a listening post, not just a talking post.

"This office is located in the bunkhouse complex," says Gibouleau. "It's important for our workers to have someone for support. I want my workers to resolve their problems on the farm."

Scheduling for days off is managed by this human resources office. This is done in such a way that only one or two people may be in the unit on the day off, allowing for more space for relaxation. All workers have access to a lit soccer pitch for friendly games on their leisure time.

Fortunately, the city of Laval is about a five-minute drive away. This allows workers to travel easily by bicycle whenever they want. Moreover, once a week, a farm bus transports workers to the city for grocery and pharmacy needs.

In anticipation of future housing regulations, Gibouleau and his family partners are planning to build new accommodations in 2024 that will meet the new standards which will come into force shortly.

"It's better to change the configuration now before it's regulated," says Gibouleau.

Interested? Find out more at the OFVC Labour Session of seminars on Feb 22. Ballroom B, Main Level. A grower panel, Doug Van Luyk and Robert Shuh, will be speaking at 2 pm. The session is chaired by Stefan Larrass, senior policy advisor, Ontario Fruit and Vegetable Growers' Association.





Macario Mendoza Vázquez, a Mexican worker, is pictured outside his housing unit at the Les Productions Margiric farm, Laval, Québec. On his day off, he has full roam of the kitchen. Photos by Michael Abril.



FOCUS: ONTARIO FRUIT & VEGETABLE CONVENTION

Ambrosia beetles: under the radar, under the wood

KAREN DAVIDSON

Full disclosure: ambrosia beetles are not related to Ambrosia apples. Entomologist Justin Renkema is the first to explain that this invasive pest has evolved over millennia, long before the chance discovery of the Ambrosia seedling in British Columbia.

As a research scientist with Agriculture and Agri-Food Canada (AAFC) based in Vineland, Ontario, his day-to-day work is developing integrated pest management strategies in vineyard, tree fruit, berry and specialty crops. Along the way, he became interested in ambrosia beetles, a tribe of beetles known scientifically as the Xyleborines.

It's small wonder that not much is known about these wood-boring pests that live symbiotically with fungus. Renkema and his team conducted an official survey in applegrowing regions in Ontario and captured 4,500 beetles in 2019 and 15,700 beetles in 2021 using traps with slow-release ethanol lures. Black stem borer is the



Photos by Deborah Breth, Art Agnello, Elizabeth Tee



Can repellants work? If the beetle is attracted by the smell of ethanol, it may be that the same strategy can work with another scent that pushes the pest away from apple orchards.

~ JUSTIN RENKEMA

most commonly identified species in Ontario. It's also common in many areas of the U.S. where orchards as well as ornamental tree nurseries can be affected.

Ethanol, interestingly enough, is produced by trees under stress. It's an emergency energy source when normal sources are impaired. So ambrosia beetles are attracted to the decaying wood, a home to burrow into and keep safe in "galleries."

The adult ambrosia beetles are hard to find at the base of orchard trees, its only trace a small, D-shaped exit or entry hole. Sometimes their presence can be detected with the telltale sign of a toothpick of sawdust. The effect on apples trees is sudden wilting or death. Leaves

may have delayed emergence in spring.

"We found a high prevalence of black stem borer in most apple orchards surveyed, with peak flight in May 2021 and in mid-summer in 2019," reports Renkema. "More beetles were found on orchard edges than in the interior."

With refreshed funding from the Horticulture Cluster 2023-2028, Renkema says the next step is to collect dead and dying apple trees from which beetles will be collected, counted and identified. From limited collections in 2023, a diverse suite of beetle species was recovered. Also, flight activity periods need to be monitored and questions remain as to what landscape factors affect beetle populations. Are certain tree stressors affecting beetle infestation? And are beetle populations related to the health of forests and woods bordering orchards?

This research is in its infancy, however these beetles may provide clues to the rapid apple decline that's been observed in some high-density orchards.

What is concerning is that these invasive beetles attack trees which have been stressed by either floods or freezes. Once more is known, management practices can be determined.

"Can repellants work?" questions Renkema. "If the beetle is attracted by the smell of ethanol, it may be that the same strategy can work with another scent that pushes the pest away from apple orchards."

Interested? Find out more from Dr. Justin Renkema, speaking at the OFVC Apple stream of seminars on Feb 22, 10 am in Ballroom C. Topic: Ambrosia beetles in Ontario apple orchards.







OVER 100 AVAILABLE VARIETIES VISIT US AT THE ONTARIO FRUIT AND VEGETABLE CONVENTION 2024 FEBRUARY 21-22 BOOTH #1113

WE LOOK FORWARD TO MEETING WITH YOU

ofve



Vineland licensed pear variety launching soon in Canada

Canadian pear enthusiasts will soon have greater selection at their local market now that Vineland's licensed HW624 pear variety is ready to launch on a national scale.

Thanks to a new collaboration with Washington State-based Stemilt Growers LLC (Stemilt), the HW624 variety will soon be available to Canadian growers and consumers offering a new and exciting pear option that is both firm with a sweet flavour and a sun-kissed rosy, yellow-green skin.

The HW624 pear was bred by Agriculture and Agri-Food Canada (AAFC) in Harrow, Ontario and transferred to Vineland's highly successful multi-disciplinary horticultural innovation and commercialization process in the last decade.

"This variety transitioned from our on-farm selection process to our consumer branding and marketplace testing analysis and was quickly identified as a desirable pear choice by consumers and growers," says Dr. Ian Potter, president and CEO, Vineland. "Finding the right collaborator was the next step in the commercialization pathway to bring HW624 from our farm to consumer tables. Our collaboration with Stemilt will allow for production and marketing of the variety right across Canada."

"We're excited to be part of innovation in the pear category with the fantastic HW624 cultivar," says West Mathison, Stemilt president. "The Vineland team selected a pear with characteristics that make it grower and consumer-friendly so this will be a great benefit to Canadian growers. It has the qualities that will delight existing and new pear shoppers throughout the country."

Amanda Moen (Vineland) and Patricia Bowlby (Stemilt) will be present on the tradeshow floor at the Ontario Fruit and Vegetable Conference held Wednesday, February 21, 2024 and Thursday, February 22, 2024 to discuss this exciting collaboration. You can reach them directly via contact details below to connect during the conference.

About Stemilt

Stemilt is a family-owned grower, packer and shipper of tree fruit. Owned and operated by the Mathison family, Stemilt's mission is to cultivate people and delight consumers with its World Famous Fruits. Stemilt is a leader in sweet cherries and organic tree fruits and a key supplier of apples and pears. The company stewards an environmentally sustainable and socially responsible business through its Responsible Choice program, which has been in place since 1989. Visit www.stemilt.com.

Finding the right collaborator was the next step in the commercialization pathway to bring HW624 from our farm to consumer tables. Our collaboration with Stemilt will allow for production and marketing of the variety right across Canada.

~ DR. IAN POTTER





RUPP FEATURE:

Yosemite is a great pumpkin for kids - especially school groups. Growers love its stunning shape, strong handle, and color.



The best products in partnership with: IFSI, Syngenta, and Crookham.

More than 1,000 seed varieties at <u>ruppseeds.com</u>

Questions/Orders: 1-800-700-1199



FOCUS: ONTARIO FRUIT & VEGETABLE CONVENTION

Grown-up marketing for homegrown products







KAREN DAVIDSON

By January 2026, the Ontario government has promised that consumers can pick up beer, cider and wine in convenience stores, grocers and big-box outlets.

Here's a golden opportunity for local crafters to compete for space on the shelf. Fortunately, there's time to think beyond what your product tastes like to what it looks like beside competitors. Let's assume that the retailer will bump aside the iconic global brand in favour of your local darling.

Amanda DeVries, veteran graphic designer, is uniquely qualified to navigate this evolving food and beverage marketplace. When her family moved from urban Ottawa in 2010 to start a rural life near St. Thomas, Ontario, she realized that her passion was combining her Indian heritage's love of food with packaging. Her husband started an organic vegetable farm. She started Eye Candy Design in 2018, tapping into the vibrant entrepreneurial spirit of south-

western Ontario.

"I started working one-on-one with small business owners," she recalls. "They had turned to their kitchens during the pandemic and came up with new products. I realized I had come full circle when I designed a label for locally made sauerkraut."

Her portfolio contains an eclectic mix of branding and re-branding clients. One recent project was with Pepper North Artisan Foods based in Oshawa, Ontario. The family-owned business had entered the fiercely competitive hot sauce business with a product line that sources Ontario-grown hot peppers. While the labelling was considered edgy for the Gen Z crowd, the bottle looked out of place on a family picnic table.

Furthermore, the red serrano and reaper hot sauce looked like a lost relative beside the blueberry and scorpion hot sauce.

DeVries solved that tangle by designing a family of hot sauce bottles that were unified by rainbow colours, yet communicated various degrees of heat on the Scoville scale. Black Cherry & Reaper? That's 8/10 for heat. And clearly, the new company logo peaks in front of a maple leaf.

There's a stiff drink waiting for new entrants to the alcohol space. Much like a bar, it's crowded and noisy. Chances are your locally made beer, cider or wine has been sampled in more friendly venues such as farmers' markets and community events. The next step, says DeVries, is to figure out how to market beyond that cozy circle.

What's your value proposition?

"Too many clients say that if consumers could just taste the product, they would love it," says DeVries. "The challenge is that the purchase is made with their eyes. And that's where branding comes in."

The first step in the branding process is to establish your value proposition. Ask yourself: "Why is my product special?" or even better "How is my product differentiated from competitors?" The answer may be: family

recipe, low-calorie, locally-grown, unique flavour combo, new format. Take a deep dive on how your product meets the needs of your ideal customer.

Who is your target market?

Want to get on the LCBO shelf? Remember that 100 other beers/ciders/beers from around the world will be auditioning for that coveted place. So your brand must call out to a specific consumer with a specific need.

"A general message to cider drinkers is not enough," says DeVries.

So research who is currently buying your product, by age, gender, income and if possible, their psychographic profile. What are their values, interests and lifestyles?

This sounds like a tough assignment, but observe your customers at the farmers' market or your on-farm retail store. Ask why they came to you on that particular day. This fictional answer provides clues: "I was on my way to a family reunion in the next town and wanted to pick up

something local and low-alcohol for my aunt."

An easy conversation at check-out can reveal how your product appeals to values and fills a need.

How does the brand tell your story?

At some point in your marketing journey, anticipate that you won't be in front of the customer to make the sale, whether that's an LCBO purchasing agent or a franchised convenience chain.

"You're not the face of the brand anymore," says DeVries. "The brand has to tell the story."

This is where an experienced graphic designer can choose colours, artwork, typeface, font size and messaging that seals a purchase in seconds.

Interested? Find out more from Amanda DeVries, speaking at the OFVC Cider stream of seminars on Feb 21. Ballroom B, Main Level, 9:30 am. Topic: Designing a brand in the alcohol space.



AGTIV AMPLIFY NUTRIENTS AND WATER UPTAKE

RELIABLE INOCULANTS FOR SPECIALTY CROPS & POTATO

+8.8%

+11.9%

+9%

CARROTS

POTATO

AGTIV® is an innovative technology brand made of high-quality and proven natural active ingredients that deliver superior quality and performance for producers. Ask your local representative, or scan to learn more about the AGTIV® offer.



info@ptagtiv.com

1866 454-5867

PTAGTIV.COM

@ 6 6 0 0

Fresh thinking for thinning apples

KAREN DAVIDSON

On a sunny February day, look to find Leslie Huffman pruning in the orchard near Harrow, Ontario. More and more, she and her husband Doug Balsillie are pruning harder to avoid the escalating labour costs associated with hand thinning.

"I know it takes discipline to prune this way," says Huffman.
"It seems to me that removing fruit buds by pruning is setting up for better success with chemical thinning. If you miss the best timing for chemical thinning due to weather when the fruitlets are from six to 10 millimetres – and timing can change with hot temperatures – then your crop load management is more expensive with excessive hand thinning."

Huffman continues, "It's easier to visualize in a trellised orchard where the wires divide the tree canopy into windows. We can explain to our workers how much to prune or thin in each window."

Each variety has different pruning requirements. Gala, for example, produces up to 10 times the buds needed to produce 100 well-sized apples per tree. But a variety such as Ambrosia grows fewer branches and produces fewer (but usually adequate) numbers of fruit buds. So Gala needs to be pruned harder than Ambrosia.

"Sometimes after we have pruned hard, we decide to prune more if time allows," says Huffman. "It's a difficult decision to make but usually worth it."

With a structured orchard system, the grower is training the fruiting area to grow uniformly. This makes each orchard task easier. As Huffman admits, this reduces the "art" of orchard management and allows workers to follow specific instructions.

"But we don't always have the luxury of experienced labour," says Huffman. We have a lot of smart workers, but not always experienced workers. Being able to give specific instruction makes their task much easier."

Seasoned horticulturists have long advised removing entire branches to reduce the crop early. Orchardists have learned during the years that achieving the proper crop load will produce a fruit with better size and quality.

"We want to avoid the hard and unpleasant lesson of harvesting an under-pruned, under-thinned crop," she concludes.

Another viewpoint

As orchard manager for Blue Mountain Fruit Company, Gerbe Botden is always finetuning management, particularly thinning in their family-owned apple orchards near Thornbury, Ontario. For three years now, he's been using RIMpro which is a predictive modelling software for thinning, insect and disease management.

"Combined with the data from weather stations on the farm, I wouldn't be without this tool to make informed decisions," says Botden. "It supplies data on various risks -- the state of infections of disease or the anticipated flight patterns of specific insects. Orchard experience is still needed to apply



Winter pruning

the information to various apple varieties."

The forecasting data is invaluable in assessing bloom stages. For example, the grower will indicate when enough open flowers have been pollinated by insects to start the pollen tube growth model. Once these flowers have reached a point of good fertilization, as indicated by the model, then it's time to start application of ammonium thiosulphate (ATS). When applied to flowers, these caustic chemicals act as a strong oxidizing agent that damage the pistils and anthers and prevent fertilization.

As the chart shows, the RIMpro system shows when

flowers have been fertilized. It's the tool that more apple growers are using to manage crop loads and labour costs.

Interested? Find out more from Gerbe Botden and Leslie Huffman, speaking at the OFVC Apple stream of seminars on Feb 21. Ballroom B, Main Level, 2:45 pm. They will be joined by Ian Parker, Wilmot Orchards. Topic: Thinning panel.



FOCUS: ONTARIO FRUIT & VEGETABLE CONVENTION

How to manage herbicide-resistant Canada fleabane in grapes



Canada fleabane rosette just starting to bolt. Adequate control will occur at this growth stage or smaller with post-emergence herbicides.

KRISTEN OBEID

The Ontario 2023 resistantweed testing results paint a very bleak picture for the future of

Current Registered Herbicides in Grapes That Provide Good Control of Canada Fleabane

Crop	Preemergence Spring ¹	Postemergence	Preemergence Fall ¹
Grape	Alion (G29) Chateau (G14) Chikara (G2) Princep Nine-T (G5)	Chikara (G2) Glyphosate (G9) Ignite (G10)	Alion (G29) Chateau (G14) Chikara (G2) Princep Nine-T (G5)

G= Herbicide group ¹All pre-emergence herbicides can be tank-mixed with glyphosate (G9) or Ignite (G10) if Canada fleabane is emerged at time of application.

weed management in this province. This year, 61 Ontario fields were tested and 55 of them confirmed herbicide-resistant weeds. Of those 55 fields, 41 had weeds with two-way or three-way resistance. Two-way or three-way resistance means the weeds are resistant to two or three different herbicide groups, also known as multiple resistance.

Unfortunately, this is the trend every year -- more and more

weed species resistant to multiple herbicide groups. Resistant Canada fleabane has been confirmed in more than 30 counties in Ontario. Most populations have two-way resistance to group 9 (glyphosate) and group 2 (Chikara, Prism, etc.). To find out where Canada fleabane is resistant in the province and to what herbicide groups go to our Herbicide Resistant Weeds Database at:

Herbicide Resistant Weeds -Database and Maps (gov.on.ca)

Canada fleabane (also known as horseweed or marestail) is a winter annual weed.

Its seed will either germinate in late summer and over-winter, or in the spring. Effective management strategies should focus on removal of seedling plants both in the fall and in the early part of spring. Since small fleabane plants are not deeply rooted, many different types of tillage provide good control of this weed.

NOTE: Control of Canada fleabane is best with preemergence herbicide applications. Control with post-emergence applications will always be best on small plants. Most label rates provide control at fewer than 20 leaves or 15 centimeters (6"), see Figure 1.

Recommended herbicide program if glyphosateresistant Canada fleabane is your target weed

2. Chateau or Princep Nine-T +

1. Alion + Ignite in the fall

Ignite in the early spring 3. Chikara (if no group 2 resistant Canada fleabane) postemergence in season as a directed or banded spray 4. Tillage close to vines and mowing alleys in season Non-chemical means of controlling glyphosate-resistant Canada fleabane are tilling small rosettes regularly, mowing larger plants, or mulching in the spring. A commitment to using Integrated Weed Management - a combination of chemical, mechanical and cultural weed control strategies throughout the growing season will help reduce herbicideresistant weed species.

Controlling weeds in vineyards has become trickier than ever. Come to Kristen's presentation to hear about new technologies and strategies to control resistant and hard to control perennial weeds in vineyards."

Kristen Obeid is weed management specialist – horticulture, OMAFRA.

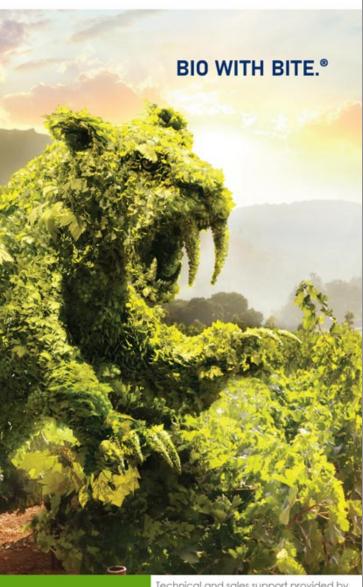
Interested? Find out more from Kristen Obeid, speaking at OFVC Grape stream of seminars on Feb. 21, Room 207-208, Second Level, 2 pm.



Target black rot & downy mildew in grapes

A new biofungicide for use in conventional and organic grapes.

- Targets black rot & downy mildew in grapes
- Excellent tank-mix & rotational partner
- For use in conventional & organic production



Technical and sales support provided by



INTERNATIONAL FEB 7-9, 2024

Fruit Logistica shortlists contenders for Innovation and Technology awards

By February 9, the produce world will know the answer to Fruit Logistica's winner of the Innovation and Technology awards. The 2024 edition of the Berlin, Germany event underscores the quick pace of perishables, whether that's in breeding new cultivars or engineering new labour solutions.

For starters, a Canadian firm was nominated for the inaugural machinery and technology award. Croptracker Inc., based in Kingston, Ontario is in the spotlight for its

Crop Load Vision technology.

Winners of the annual awards for outstanding innovations from the entire fruit and vegetable value chain are chosen exclusively by trade visitors which takes place in Berlin from 7 to 9 February 2024.

Contenders for the 2024 award include a perfectly ripe, peeled avocado with a shelf life of one month, a versatile cross between a cucumber and a squash, a new trailblazer in courgette production, a modern twist on the

watermelon, and naturally sweet, pink-red onion.

In addition, a FLIA Technology Award will be presented for the first time in recognition of innovations in the field of Machinery & Technology. Nominees for this award include the world's smallest self-service asparagus peeler, a mobile app that counts fruit before harvesting, a natural method to prevent whitefly damage in greenhouse veg, an AI-enabled crop trimmer, and a robotic exoskeleton for packhouse workers.

The 2024 FLIA Technology nominees



Product: "Crop Load Vision" Company: Croptracker, Inc., Canada

Crop Load Vision (CLV) is a mobile app for counting pre harvested fruit developed by Croptracker, Inc.. Using only a mobile iOS device, CLV captures fruit count in real time to assist growers in faster and more accurate crop load assessments. It requires no setup or internet connection and can be used at any time in the season to count fruit and fruitlets. Real time results and on screen feedback eliminate double counting and allows for on the ground, informed decision making.



Product: "Calynso Sweet Red Onions"

The 2024 FLIA nominees

Product: "Calypso Sweet Red Onions" Company: Bedfordshire Growers, United Kingdom

Join a grower's 30-year journey dedicated to cultivating the finest Calypso sweet red onions. In his 80s, he still personally tastes each bulb for perfection. Experience a harmonious flavor with low pungency, allowing natural sweetness to shine. Each onion, with its singular center and thick layers, guarantees the perfect crunch. Admire the stunning red hue with hints of pink, and internally, a mesmerizing mid-to-deep red.



Product: "Mirical" Company: Koppert, Netherlands

The new packaging serves as a user-friendly release system, improving application precision and reducing plastic by 99%. Significant improvements have been made in both the quality and performance of Mirical, Koppert's biological solution for destructive whitefly in greenhouse vegetables. The predatory bug Macrolophus pygmaeus (Mirical) is now stronger and better able to establish and develop itself in the crop.



Product: "Zucchiolo" Company: Unica Fresh, S.L., Spain

Zucchiolo is a vegetable that marks the beginning of a new product category in the European market. It can be consumed fresh and raw in a salad, similar to a cucumber, and cooked, like a zucchini or eggplant. It stands out for its versatility. It's a product with a pronounced social character, where fifty percent of the income generated from it sales is allocated to the social purposes such as fight against cancer and degenerative diseases.



Product: "Aspara to go" Company: Hepro GmbH, Germany

Hepro's "aspara to go" is the smallest self-service asparagus peeling machine in the world. Covering an area of 0.34 m², it peels a standard commercial quantity in under a minute and uses a professional peeling principle to ensure perfect peeling results for both green and

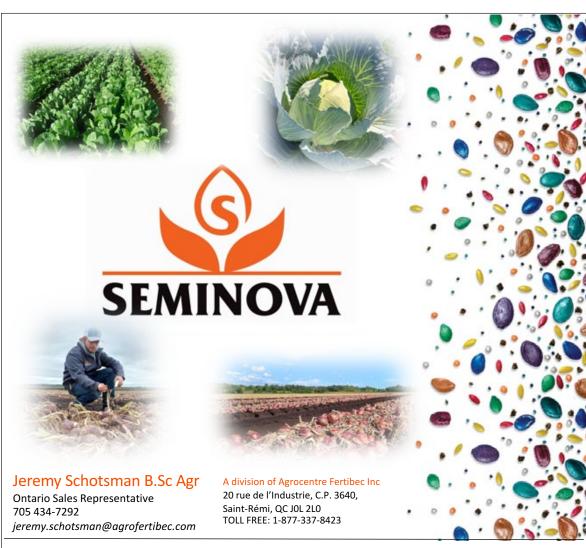
white asparagus - with an individually defined cutting pattern depending on the thickness of the asparagus. It is perfect for use in food retail outlets, because with its integrated compressor and water tanks, it only requires a domestic power connection.



Product: "Frutastic" Company: Gautier Semences, France

Frutastic innovative squash varieties by Gautier Semences stand out, ensuring consistent yields through its highly parthenocarpic nature and adaptability to various indoor conditions. It emphasizes high-quality fruit production,

reducing waste and chemical inputs, aligning with environmentally conscious agriculture and consumer preferences. These distinctive features position Frutastic as a trailblazer for squash production.



Bringing you the best vegetable seed, backed by our innovation and expertise.

THE GROWER

Bioproducts are all the rage

DENNIS VAN DYK

If you have been monitoring the headlines over the last few years, you'd notice an increasing number of new products under the bioproducts banner. This recent flurry of new products is set to continue as many of the large crop protection companies are bolstering their portfolios with a range of bioproducts. Since there are more and more of these products in the marketplace, it's helpful to break them down into a few categories based on what they actually do:

Biopesticides

Biopesticides are registered through the Pest Management Regulatory Agency (PMRA) and target specific pests either directly, through competition, or by stimulating plant defenses. These would include some products with living microorganisms (or their bioproducts) such as Bacillus species (Bacillus thuringiensis (BT), Bacillus subtilis, etc.), Trichoderma species or Beauveria bassiana and nonconventional materials such as copper or citric acid. Biopesticides will have a product label that lists specific pests and levels of control.

Biostimulants

Biostimulants work by initiating some sort of change in the plant. This change can cause it to increase nutrient uptake in some cases, mitigate environmental stress or stimulate plant defenses in others. Biostimulants are regulated through the Fertilizer Act of the Canadian Food Inspection Agency (CFIA), usually as supplements although some may have a small fertilizer component to them. Some biopesticides and biostimulants may both stimulate plant defences but biopesticides will have to prove activity on specific pests to become registered. Biostimulants are a large and varied group which consist of plant or seaweed extracts, humic and fulvic acids, minerals, proteins, or other microbes.

Biofertility/Inoculants

Biofertilizers/inoculants are organisms which form symbiotic relationships with the plant to provide a nutritional benefit. Some of the well-known examples are nitrogen-fixing Rhizobium bacteria in legumes and mycorrhizal fungi inoculants which can increase phosphorous uptake through symbiotic colonization of host roots. There are also some new products with nitrogen-fixing bacteria for non-legume crops.

Biocontrols

Mostly used in greenhouse production, biological controls (biocontrols) are live, beneficial insects, nematodes, fungi or viruses that actively attack and kill pests. There have been some advances in using biocontrols in a field setting and there are many ways to promote beneficial species but right now there are limited registered biocontrols available for outdoor use.

Field research

As with any new products and technologies, nothing beats evaluating that tool close to home, whether that be research from Ontario, maybe from your county or even better, on your own farm. For the last number of years, we've been trialing different bioproducts on potatoes in Ontario to evaluate their potential value for growers.

Specifically, in 2023, we looked at a range of bioproducts from a few different categories: two seaweed-based biostimulants (Ohm and Megafol), two biofertility/inoculant products (Agtiv and Envita), and one Bacillus-based biostimulant product. We mixed and stacked some bioproducts together to see if we could find a combination that gave us the most bang for our buck. Some were applied in-furrow at seeding (inf) and others were foliar applied around tuber initiation and then again two weeks later.

Rainfall in 2023, starting the end of June, meant very little drought stress for the bioproducts to have an influence. We didn't identify any differences in emergence, height or dieback in





Figure 1. Potato bioproducts trial establishing well with some early season irrigation.

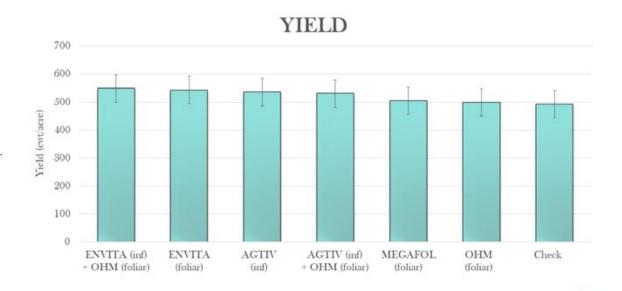


Figure 2. Yields of potatoes treated with a combination of bioproducts in 2023.

the trial (Figure 1). The Dakota Pearls we used in the trial grew a waist-high, lush canopy and the resulting yields were off the charts good (Figure 2). No significant differences in yield were found between the treatments at harvest which was likely due to ideal growing conditions for most of the season.

Here are some conclusions going into 2024 after a few years of trialing bioproducts in potatoes. Efficacy is hard to pin down. While we only showed one

year of data, we find it varies from year-to-year but even from field-to-field and variety-tovariety. This is why I highly recommend evaluating bioproducts on your own ground. The trend we do see is positive benefits in situations where there is a limiting factor or stress (usually drought). In years with good growing conditions or even irrigated fields in some cases, we have a harder time finding differences from the untreated check.

In the current push for sustainable and regenerative practices, bioproducts will continue to make up a larger portion of the toolbox. While we know they can work, we just have to keep dialing in on the right fits.

Ontario 📆

Dennis Van Dyk is vegetable crop specialist, Ontario Ministry of Agriculture, Food and Rural Affairs.

NEED SEED? OUR TEAM CAN HELP!



Paul Banks (ON/NS) 905-688-4300



Alexandre Bisson (QC/ON) 438-334-1996



Leah Erickson (BC/AB) 604-957-2359



Rob Hovius (ON/PEI/NB) 519-580-3231



Marc André Laberge (QC) 514-984-4589



Darcy Leiter (AB/MB/SK) 306-491-6485



Amélie Lepage (QC) 514-984-0662



Emily Robins (ON) 905-308-4396



Bridget Visser (ON) 905-715-8595













THE GROWER

ONTARIO VEGETABLE GROWER

When is the best time to plant garlic?



Figure 1. Planting into snow-covered ground before it was frozen - November 16, 2022

TRAVIS CRANMER

Garlic yields best when it is planted in the fall and has time to achieve some root growth before winter. Historically, planting around the date of the first fall frost has been hypothesized as being the best time to plant to reduce the chance of winterkill and get good root establishment before the ground freezes.

The ability to plant weeks before the first fall frost would give a longer window for planting, which is an advantage when there is a large acreage to plant or in fields that have heavier soil and take time to dry before planters can be used.

The concern with planting too early is that the plant emerges and produces multiple leaves before the ground freezes. These leaves may die from extreme temperatures and leave the clove with little resources to put a new sprout up in the spring. Without enough energy to push new leaves to the surface in the spring, the plant dies.

Many growers planted way after the date of the first fall frost this year since the ground was too saturated from frequent rains, pushing many acreages to be planted into November and December. Lack of root growth resulting in frost heaving may also result in greater amounts of winterkill and decreased yields come harvest in July.

To determine if planting earlier would result in winterkill or have negative impacts on yield, a planting date trial was set up in Dashwood, Ontario in 2022 with seven planting dates starting August 30th and continuing roughly every three weeks until December 6th, along with a single planting date in April 2023. Despite not missing any planting dates, several planting dates would have been too wet to plant mechanically if we were not planting by hand (Figure 1).

Bulbs of a porcelain cultivar, similar to Music, were split into cloves immediately prior to planting every three weeks, from the same source of bulbs throughout the entire trial. All cloves were planted between 5-10 cm (2-4 in.) deep in a randomized,

complete block design.

The 2022 winter was relatively mild for Dashwood, but there was limited snow cover to provide some extra protective insulation. The middle of the trial (replicates 2 & 3) was flooded and underwater for a few days in the early spring. This likely explains why many of the cloves planted after October 27th that did not have sufficient root development did not survive.

These results are limited as they are only from one year, a single field site, in one soil type, with a relatively mild winter. The best performing planting date was September 14th based on the number of plants that survived and their dry weight at harvest (Figures 2 & 3). The September 14th planting date was not significantly different than the August 30th or October 5th planting. The largest bulbs came from those planted August 30th, but yield was not significantly different from the three following planting dates.

The average date of the first fall frost in Dashwood is October 13th based on the Average Frost-Free Period in Climatic Zones of Ontario (1975-2005). Planting August 30th would be almost six weeks before this 'ideal' time to plant. Despite the plants from the August 30th planting having 3-4 leaves prior to the ground freezing, the results indicate that this did not negatively affect survival or yield (Figure 4). Planting this early gives a much larger window of opportunity to get the crop planted, especially in soils that take time to dry out.

For those who have planted garlic earlier in the past and experienced winterkill, was the planting stock compromised or weakened in any way? Were there stem and bulb nematodes present? Were the bulbs cracked greater than seven days prior to planting?

Planting earlier in the season may still put the plants at a higher risk of winterkill if they bolt, so it is likely best to avoid taking this risk if you are planting compromised / weakened planting stock.

Currently, this trial is being repeated and six out of the seven planting dates have already been

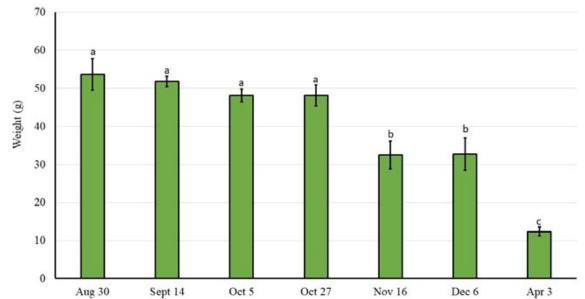


Figure 2. Average bulb weight at harvest from cloves planted at various dates in 2022 and 2023 in Dashwood, ON.

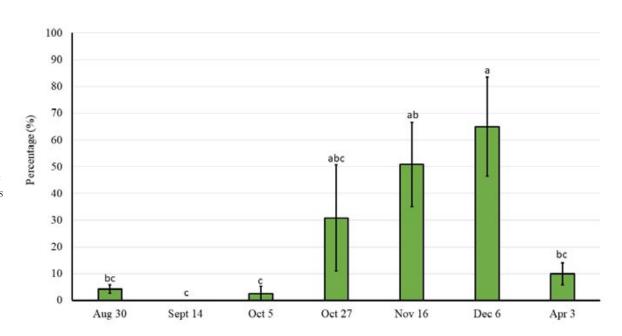


Figure 3. Percentage of plants lost prior to harvest from cloves planted at various dates in 2022 and 2023 in Dashwood, ON.



Figure 4. The majority of the cloves planted August 30th had 3-4 leaves emerged by December 6, 2022, yet this did not negatively affect survival nor yield.

planted in 2023. We also added additional treatments and intercropped oats at the same time as the garlic was planted for the August 30th and October 3rd plantings. Potentially the oats can help limit soil erosion over the winter and maybe the remaining

plant material can provide some early-season weed suppression in the spring.

The full results of this trial will be posted on the www.ONvegetables.com blog and discussed during the garlic session at the Ontario Fruit and Vegetable Convention Thursday, February 22nd.

Travis Cranmer is vegetable crop specialist, Ontario Ministry of Agriculture, Food and Rural Affairs.

MARKETPLACE WORKS

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

REAL ESTATE

Vegetable Farm for Sale

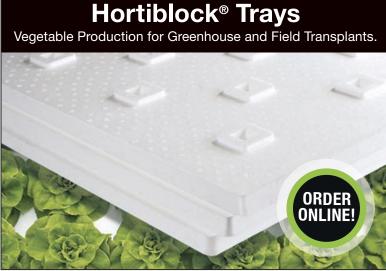
Located in Robinsons NL

· 21 acres of land (mostly river flats - clay loam soil) • 5 bedroom, 2-story house • Full line of equipment • 16x20 foot cool • 2 story barn • Farm market building • 20 x 48 steel frame and 16 x24 wooden trame greenhouses • Packing shed with underground cellar • Fully equipped garage • Inventory of packing supplies, chemicals and boxes • Available in April!

> For a full listing contact Glenn Wells: 709-645-2203 email- wellsfarm@eastlink.ca

GROW TRAYS









Scan the QR code to sign up.

CLASSIFIED

Frost cloth – 25 plus acres, PG40 cover, 28 ft wide. 25% of cloth never used. Includes reels and hydraulic winder. Will consider selling separate. \$28,000. 519-427-4594

Turn your used farm equipment into cash.

classified ads 519-763-6160 x 221

EQUIPMENT



HELMET RESPIRATORS



Helmet respirators that give you protection while spraying and handling herbicides and pesticides.



&VEGETABLE GROWERS' ASSOCIATION

NOTICE OF MEETING

is hereby given that the **165TH Annual Members and Directors' Meeting** of the

Ontario Fruit and Vegetable Growers' Association will be held in person at Hilton Niagara Falls/Fallsview Suites on February 20th, 2024

Election of Directors of the Association will take place as well as dealing with resolutions and any other business that may arise.



Award of Merit is our way of recognizing the outstanding contribution made by an individual or organization to our fruit and vegetable industry. This recognition may include the strategic leadership, technical input, and/or the dedication shown by this person or organization to our fruit and vegetable sector.

AWARD OF MERIT NOMINATION FORM AND REGISTRATION AVAILABLE AT WWW.OFVGA.ORG/AGM

CROP PROTECTION SPRAYING & POTATOES

MARCH 2024

BOOK AD SPACE FEBRUARY 14, 2024 AD COPY DUE FEBRUARY 16, 2024

advertising@thegrower.org



@growernews

MARKETPLACE WORKS

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

REFRIGERATION





Providing quality apple trees for

- Bench graft
- 9 month bench
- KNIP tree
- Call to enquire about the new variety Wild Pink.

Call sooner and get what you want with better savings... contract work available.

ASPARAGUS ROOTS

Guelph Millennium

Wrightland Farm

RR I • 1000 Ridge Rd. Harrow, ON NOR IGO

Keith: 519-738-6120 Fax: 519-738-3358 wrightland@hotmail.ca



INNOVATION **EFFICIENCY** PERFORMANCE

Premium fruit and vegetable refrigerated cold storages

519-983-6995 info@heye.ca

DESIGN - SUPPLY - CONSTRUCT - MAINTAIN







Toll free: 877-550-7412

Fax: (519) 849-6731



SEED & ROOTSTOCK



35+ years experience growing trees for wholesale markets Apples, Pears, Fruiting Quince, Plums, Apricots,

Sweet & Sour Cherries, Peaches & Nectarines Custom/Contract Growing Available

Nursery Location: 148 Concession 6 Rd. E., Millgrove, ON L8B 1M4 Phone: 905.689.5466 | Fax: 905.689.8584 | Email: info@gcntrees.com www.gcntrees.com

BLACK CURRANT PLANTS

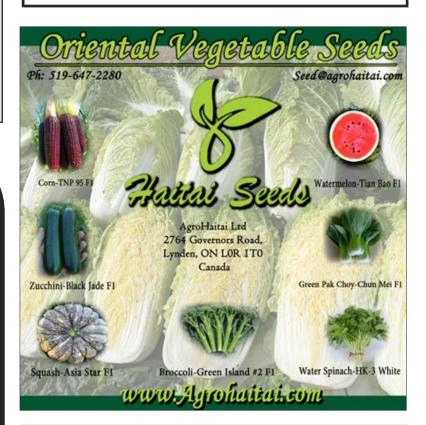
If you are thinking of commercially growing black currants, you need the best tasting, highest yielding varieties that were developed by McGinnis Berry Crops for North America's growing regions.



Blackcomb, Tahsis, Stikine, Nicola & Whistler available √ great flavor √ disease resistant √ high yield

Order today for Fall 2024/Spring 2025 planting

PLAID SHIRT www.plaidshirtfarms.com • info@plaidshirtfarms.com Farms Ltd phone: 226-321-2525



CONTAINERS & PACKAGING



Visit us at booth 1206 at the Ontario Fruit and Vegetable Convention.

Hope to see you there!



Please, do not hesistate to contact us! Office: 519-599-1224 Mike's cell: 519-270-1145 mike@crownbin.ca

CROP PROTECTION

The Canadian invasion: Lessons learned from a field trip to Reading, Pennsylvania to prepare for Spotted Lanternfly



JOSH MOSIONDZ, HANNAH FRASER, DENISE BEATON, WENDY McFADDEN-SMITH & CASSIE RUSSELL

Spotted lanternfly (SLF), Lycorma delicatula, is a sap-feeding planthopper with a love of grapevines. Native to China and Vietnam, SLF is invasive to Japan, South Korea, and most recently the United States (U.S.). The first North American population was confirmed in Berks County, Pennsylvania, in 2014, and despite eradication and quarantine efforts, it has spread to at least 17 states. This includes populations in both New York and Michigan, right across the border from grape-producing regions in Niagara and Essex. An interactive map of the distribution is available at https://shorturl.at/xHO01

As of the time of writing, despite several 2023 sightings and interceptions of SLF on imports and vehicles in Ontario, the pest has not been detected in Canada. "Detected" refers to confirmed finds of live, established SLF in the environment.

To learn more about SLF from those working with and managing the pest, a team of Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) specialists (Figure 1) traveled to Reading Pennsylvania and surrounding areas in fall 2023 to participate in hands-on training. Over the course of four days, the team was able to meet with a wide range of extension specialists, researchers, and industry personnel, including those from Penn. State University, the Fruit Research and Extension Center, the United



Figure 1: From Left to Right: Josh Mosiondz, (OMAFRA), Cassie Russell (OMAFRA), Brian Walsh (Penn. State Uni.), Dr. Julie Urban (Penn. State Uni.), Hannah Fraser (OMAFRA), Dr. Wendy McFadden-Smith (OMAFRA), Denise Beaton (OMAFRA) holding SLF adults in an infested demonstration woodlot.





Figure 2: (Left) An adult female deposits a white waxy coating upon a newly laid eggmass atop of a previous generation's eggmass. (Right) a newly laid eggmass with fresh white waxy coating (approximately 1-2 hours old) vs. an older egg mass 3-4 days old which has its waxy coating faded to a light brown.

States Department of Agriculture's Animal and Plant Health Inspection Service (USDA-APHIS), the US Army Corps of Engineers, Pennsylvania Department of Agriculture (PDA) and commercial growers. Through these visits, the team was able to discuss ongoing containment and various management strategies attempted for this invasive insect. From this, three main takeaways were identified following our stay.

1) Egg masses, detection difficulties, and interesting behaviours

The reason that SLF has been such a successful invader is because it is an excellent hitchhiker, and it isn't a picky eater. More than 70 host plants have been identified in the U.S., many of which are common agricultural and landscape plants in Eastern North America. Long-distance spread to new geographic areas is attributed to the movement of egg masses, which can survive long-distance transport and cold

temperatures. For example, SLF is suspected to have entered the U.S. in the egg-mass stage on a shipment of landscaping stone. Females lay their eggs on virtually any flat surface, including both host plants and non-plant material such as landscaping stones, outdoor furniture, pots, firewood and vehicles. Eggs are covered by a protective substance that, once dried, makes them difficult to detect. They look like splotches of mud, especially when on vehicles, campers, trailers, railcars, garden equipment, or other materials. When egg masses are deposited on the bark of certain tree species, it can be very difficult to distinguish an egg mass from the actual bark, especially as SLF often lay eggs high in the canopy of trees, several feet or more above eye level.

Movement of adults on vehicles is also possible. The observed spread in the U.S. closely follows the distribution of major highways and railways, possibly from mated females jumping off along the way.

Continued on next page





Highly effective fungicide offering broad spectrum protection



CROP PROTECTION

Lessons learned from a field trip to Reading, Pennsylvania to prepare for Spotted Lanternfly

Continued from page 30

Disturbed habitats often include preferred hosts such as the invasive tree of heaven and wild grapevines, which also help facilitate establishment and subsequent local spread.

Beyond this, an interesting observation we made was that females often returned to the same general location to lay their egg masses as previous generation. We also frequently observed fresh egg masses laid on or near areas of the tree where the previous year's egg masses had been scrapped off (and with it a thin layer of tree bark). Both old and new egg masses were typically found in tree cracks, crevices, branch crotches, on the underside of branches or any other protected portion of the tree (Figure 2). Researchers and extension specialists have also found that in the Reading, PA region, egg laying typically starts on or close to the timing of the fall equinox, perhaps suggesting that this is triggered by photoperiod.

2) Ecosystem and plant effects – direct and indirect damage

Swarms of nymphs and adults damage plants directly by feeding on sap from the stems and trunks, and indirectly by excreting large amounts of sugary honeydew that promotes the development of sooty mould, which in turn interferes with photosynthesis. Large, concentrated populations of SLF are sometimes known to create a "rain effect" as honeydew falls to the ground during periods of heavy feeding – some of which we were also able to experience firsthand. The honeydew that falls on plants and other substrates and develops the black sooty mould will appear black in colour and will often look as if it were burned (Figure 3). Besides causing issues with the plant's photosynthesis, it is also not aesthetically pleasing. The honeydew buildup additionally attracts other insects which like to feed on the sugary mixture – often bees, wasps, or other stinging insects. Aggregations of adults and the messy, sticky honeydew they excrete are significant nuisance factors, with impacts to homeowners, tourism, businesses, and overall quality of life.

The spotted lanternfly is considered a plant stressor, contributing to the long-term weakening of established vines, shrubs and trees. Prolonged swarm feeding (hundreds to thousands of individuals can occur together) has led to the death of grapevines (wild and cultivated), the invasive tree of heaven (a preferred host), and saplings of black walnut and silver maple in infested areas. For large trees, this can lead to the development of deadfall as trees may decline or die, and pose a subsequent safety hazard to anyone around them as branches become brittle and fall.

While there have been some dramatic images of swarms on fruit trees, SLF is understood to be more of a transitory feeder on these crops and numbers are often kept in check with regular insect IPM programs. The long-term impact to other hosts, including understory plants covered with sooty mould, has not been determined.





Figure 3: (Left) Sooty mould buildup (approximately 3-4mm thick) on a tree branch following honeydew accumulation. (Right) Sooty mould build up on understory plants beneath a mature tree of heaven on which SLF have fed.

3) Questions and challenges still remain, and many of them!

Of particular concern to the grape and wine sector, grapevines exhibit decreased vine growth, reduced crop yield, poor winter survivability, and high levels of mortality when SLF populations are not managed. Treatment thresholds are under development in Pennsylvania and other wine-producing states which currently have populations of SLF. One of the challenges with SLF in vineyards is that populations frequently build up in the landscape around vineyards rather than within. When those alternative hosts start to senesce in the fall, adults move into vineyards in repeated waves, requiring multiple insecticide applications to protect the vines until the adult SLF are killed off by heavy frosts. In the U.S., growers generally use products with short Pre-Harvest Intervals (PHIs) before harvest for management of adults. Products with longer residual activity may be applied earlier in the season when PHIs allow for use, or sometimes post-harvest when populations continue to persist. Nymphs hatching from eggs laid in the fall within the vineyard are generally easily killed in the spring and summer by insecticides used for other pests.

One significant question to which we still lack a definitive answer is what drives the adults to gather and exhibit their swarm-like behaviour in the fall as they move from their landscape hosts into vineyards. Currently, research has been unsuccessful in identifying consistently effective aggregation or sexual pheromones that could be the cause. Other hypotheses behind these aggregations include visual recognition, honeydew excretions or frequencies.

Our tour guides also explained that they have found certain trees are highly attractive to adults and large numbers can be found on one tree and nearby trees of the same species and similar size and appearance will be left relatively unscathed. The reason SLF is attracted to these "hot trees' is a phenomenon that is not yet well understood.

Additionally, the "hot trees" may not be so 'hot' the next year. Turgor pressure, which helps move the sugary phloem from the roots to the canopy, is a suspected factor but remains unproven thus far.

Finally, there is research underway to identify potential biocontrol options that

Table 1: Summary of current insecticide registrations for SLF in Canada

Crop	Product Active Ingredient	Product Trade Name
Grapes	potassium salts of fatty acids	Kopa Insecticidal Soap
Tree Fruit (Crop Group 11-09 and 12-09)	potassium salts of fatty acids fenpropathrin	Kopa Insecticidal Soap Danitol
Nursery and Outdoor Ornamentals	Potassium Salts of Fatty Acids flupyradifurone*	Kopa Insecticidal Soap Altus*

^{*} Emergency Use Registration currently in effect

will help manage this insect. Researchers are looking at native predatory insects and host-specific parasitoids from SLF's native host range. This work can take many years to complete since non-target effects for non-native biocontrols must be investigated thoroughly to ensure there will be no unintended harm to the environment.

With wholesome integrated pest management (IPM) programs still in the early stages of development, U.S. growers are relying mainly on insecticides to keep numbers at low, manageable levels. Research in the U.S. indicates that perimeter sprays around vineyards can be as effective as full block applications, as most individuals are located along vineyard borders. When making any kind of insecticide application for SLF management, thorough spray coverage and use of effective products with good knock-down is critical to effectively manage populations. Exclusion netting can also be very effective, but very labour intensive, and is often not practical for large blocks or commercial growers. Efficacy can also wane when tall trees are present around the vineyard which allows adults to simply fly above it. Scraping and destroying of egg-masses, most of which are along borders, is time-consuming, and given hatching nymphs are easily killed in-season, is probably of limited value.

As of January 2024, some pest control products are fully registered by the Pest Management Regulatory Agency (PMRA) for use on Spotted Lanternfly (Table 1) and several additional submissions are currently in review at the Pest Management Regulatory Agency.

All of this may leave you wondering what YOU as a grower, industry member, or citizen can do to prepare for this insect's arrival.

- Ensure you and any potential staff are properly trained to inspect any imported products from regions with known SLF infestations with extreme diligence.
- Ensure you look for proper life stage according to timing within the year and report any suspected presence of SLF.
- Keep an eye out for educational materials, training workshops, and follow Best Management Practices as they continue to be developed and released.
- Most importantly, should you suspect you've found a SLF egg mass, nymph, or adult whether on imported material or outside your operation, immediately snap it (take a picture or video), catch or kill it, and get in touch with the CFIA to report your finding.

For more information on the pest's life cycle, biology, and how to recognize and identify eggs, nymphs and adults, please visit www.ontario.ca/spottedlanternfly

For those attending the 2024 Ontario Fruit and Vegetable Conference, a morning session on Wednesday February 21st will be dedicated to SLF with speakers from various backgrounds currently scheduled to participate. Also visit the OMAFRA Agriculture Development Branch booth to view specimens in ethanol or pinned in shadow boxes to take in how large these insects are in real life!

Josh Mosiondz is provincial minor use co-ordinator; Hannah Fraser is entomologist – horticulture; Denise Beaton is crop protection specialist; Wendy McFadden-Smith is tender fruit and grape IPM specialist; and Cassie Russell is nursery and landscape specialist. All are with the Ontario Ministry of Agriculture, Food and Rural Affairs.

CROP PROTECTION

Gowan Crop Protection acquires rights to cyromazine

Gowan Crop Protection Limited, an affiliate of Gowan Company, L.L.C., has entered into agreements with Syngenta Crop Protection AG to acquire global rights to the active ingredient cyromazine. The acquisition includes product registrations and trademarks, including Trigard and Lepicron and related intellectual property and labels.

The acquisition excludes the trademark Citation for use on ornamentals. The transaction closed on December 28, 2023. Syngenta and Gowan will work together over the next several months to facilitate an orderly transition to maintain quality customer service in all geographies. U.S. crop protection and seed treatment product transfer will commence in a few years. The financial terms of the transaction were not disclosed.

Cyromazine is an IRAC Group 17 insecticide that acts as a moulting disruptor in Dipteran species (two-winged flies). Leaf miner, for example, is a significant pest in crucifer crops and field vegetables worldwide. Cyromazine has been a current tool for thousands of farmers with a unique mechanism of action and a soft profile for non-target organisms.

A cornerstone of Gowan's Muddy Boots philosophy is to support growers and distribution partners in meeting the challenges of controlling destructive weeds, insects, or pathogens infesting crops. Gowan believes this acquisition will enhance its core product offering in vegetables and allow the company to serve growers' needs better in these crops.



Cabbage leafminer

Biopolin pollination enhancer now available



extended throughout bloom.

Biopolin is available to
Canadian growers now. In 2024,
Cohort Wholesale will be

working with horticulture growers and their crop input retailers across Canada to establish demonstration Biopolin demonstration sites.

For more information on
Biopolin, please visit
CohortWholesale.com or conta-

your local Cohort Wholesale representative.

Source: Cohort Wholesale January 8, 2024 news release

Andermatt Canada and Cohort Wholesale have reached an agreement for Cohort Wholesale to distribute new Biopolin Pollination Enhancer in Canada.

For use in berries, tree fruit, canola, and other crops, Biopolin is sprayed on the crops during bloom and enhances pollinator activity in the crop leading to more flower visits. As a result, farmers benefit from increased pollination and substantial increases in yield and quality.

"Enhancing the pollination process is our final opportunity to increase our yield potential as a fruit grower. After pollination we must shift to playing defence, protecting the potential yield that develops from successful pollination," observed Colin Smith, Andermatt Canada's market and sales manager.

"We believe Biopolin is a great new tool for our grower customers," noted Trevor Latta, Cohort Wholesale manager. "It has the potential to change the way farmers think about their crops' potential, and we are looking forward to introducing the product to them."

Biopolin uses advanced microencapsulation technology which prevents rapid evaporation of the product after application while also releasing it gradually throughout the pollination period. The pollination enhancement effect is consistent and

