

GLOBAL PANDEMIC, LOCAL IMPACTS

## Supply chain hotspots need a shot in the arm



The global pandemic continues to have many local impacts, from the ballooning costs of housing temporary foreign workers during the 14-day quarantine to short supplies of wooden pallets. One spot of good news is the vaccination clinic at the Ontario Food Terminal where just under 6,900 frontline workers, agri-business staff and immediate families were vaccinated in May. This young worker is scooping up bundles of fresh rhubarb to fulfill an order at the terminal's farmers' market. Photos taken pre-pandemic by Glenn Lowson.

KAREN DAVIDSON

The lowly pallet is in high demand. A year into the global pandemic, stockpiles of wooden shipping pallets continue to shrink while prices skyrocket by as much as 400 per cent.

Unfortunately, that's but one of the troublesome kinks currently plaguing the produce supply chain. Another is the costs and delays from housing temporary foreign workers for the 14-day quarantine, often longer when COVID-19 test results are delayed or lost. The problem will only ease once a sufficient percentage of the workforce is vaccinated – an elusive goal determined by vaccine supply, access to

vaccination clinics and, of course, worker consent.

One would think that getting pallets, the most utilitarian of supplies, should be a slam dunk. Not so in the COVID era with North America-wide shortages this spring connected to several disruptors.

"The lack of pallets is adding stress to a supply chain that is already facing significant challenges," says Jane Proctor, vice president, policy and issue management, Canadian Produce Marketing Association (CPMA). She names a lack of available trucks and shipping containers, ongoing labour challenges, fluctuating fuel costs, pandemic-related challenges and a pending shortage of resin used to make reusable

containers and pallets.

"At this time, expectations are that the pallet shortage will continue for months, perhaps for the balance of 2021 – all at a time when many North American produce items are just beginning seasonal harvests and shipments."

That's a big deal since pallets are a prerequisite for shipping produce, not only to stabilize the load but to maintain food safety.

The scope of pallet excess demand is driven by several factors, says Proctor. The shortage of lumber and wood products has increased the cost of raw lumber that's needed to build new pallets to replenish supply chain attrition due to normal wear and tear. Pallet companies are forced to

source product from other jurisdictions thereby adding duty and transport costs to each pallet. And then there's the ripple effect from pallet hoarding, much like the toilet paper crisis, caused by delayed or cancelled orders from pallet suppliers. In turn, this causes longer storage and increased operational congestion.

Compounding a dwindling availability are wholesaler, distributor and retailer efforts to maintain inventories of non-perishables given previous pandemic-related demands, which translates to product sitting on pallets in their warehouses much longer than normal.

Continued on page 3

Asparagus ramps up PG 7

Logistics & transport technology PG 12

ON Vegetable News PG 14

## AT PRESS TIME...

### OFVGA launches mobile screening app

The Ontario Fruit and Vegetable Growers' Association (OFVGA) is offering a new app to streamline and automate daily COVID-19 health screening of workers this season. It's being offered free of charge to growers across Ontario, after a pilot in Niagara, Windsor-Essex and Haldimand-Norfolk regions.

COVID-19 screening of workers, in accordance with local health unit directives, is a requirement for employers under the Reopening Ontario Act, and this app is intended to make it easier for growers to fulfill this requirement says Stefan Larrass, senior policy advisor, OFVGA.

As of May 19, there are 35 farms onboarded representing 800 workers, says Andrew Hurrell, business development and stakeholder engagement for the Canadian Agricultural Human Resource Council, one of the funding partners.

One pilot user reported: "This is much better than the paper-work we had to use last year."

Another user shared: "It's taken a bit to get this organized, but it is worth it."

Development was funded in partnership with Canadian Agricultural HR Council (CAHRC), the Ontario Ministry of Agriculture, Food and Rural Affairs and Agriculture and Agri-Food Canada.

For an excellent YouTube tutorial, link here: <https://bit.ly/33nE0WO>



### Details of imidacloprid final decision welcomed

On May 19, the Pest Management Regulatory Agency (PMRA) released its final re-evaluation decision on imidacloprid, a neonicotinoid. Most uses of imidacloprid, a key insecticide for several horticultural crops, will remain registered with new mitigation measures.

"After several years of scientific evaluation, the Ontario Fruit and Vegetable Growers' Association is encouraged that several critical uses of imidacloprid will remain registered with additional mitigation measures," says Chris Duyvelshoff, crop protection advisor, OFVGA.

- Foliar applications are to be reduced to once per season for most crops.

- Greenhouse use is acceptable provided there is a closed recirculation system.

"The extensive science review by Health Canada's PMRA has demonstrated that these uses do

not pose an unacceptable risk to human health and the environment," says Duyvelshoff. "It should be noted that many previous uses of imidacloprid have already been restricted by PMRA during this review process including cancelling all uses on fruit trees and many other crops out of concern for pollinator health. The remaining uses going forward are a small subset of what imidacloprid was previously registered for. Uses to remain, such as a treatment of onion seed before planting, will continue to provide control of key pests – many of which lack any sufficient alternatives to control."

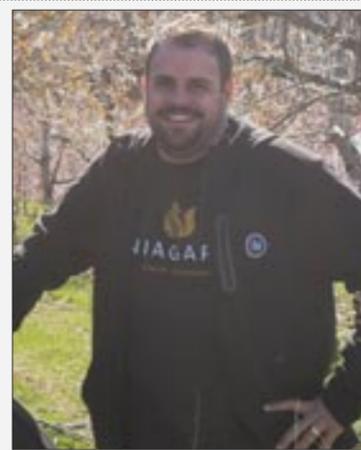
The imidacloprid review is now effectively done – the first neonicotinoid to be fully completed, explains Duyvelshoff.

Thiamethoxam and clothianidin are still in queue for final review decisions which are scheduled for spring 2022. Acetamiprid and thiacloprid are other lesser used neonicotinoids that are still years away from a final decision.

For all details of the imidacloprid decision, link here: <https://bit.ly/3owtzcw>

## NEWSMAKERS

**Matt Dixon**, co-founder and president of Niagara Cider Company, located in Niagara Falls, has been named chair of the Ontario Craft Cider Association. Throughout his career, Matt has worked for a collection of wineries, craft breweries and cideries in a variety of senior sales and marketing positions but his ultimate goal was to operate and co-own a cidery to produce quality craft cider products. He has held a number of positions with various non-profit association boards including Wine Growers Ontario, Ontario Grape and Wine Research Inc, Cool Climate & Viticulture Institute at Brock University along with the Ontario Craft Cider Association.



**Matt Dixon**

Farm and Food Care Ontario has elected its 2021-2022 executive with **Bonnie den Haan** remaining chair. The horticultural sector is represented by **Brian Gilroy**. **Steven Vanderzanden** from Turkey Farmers of Ontario and **Gordon Stock** from the Ontario Fruit and Vegetable Growers' Association serve as chairs of FFCO's two member advisory councils and also sit as ex officio members of the board.

Best wishes to **Cathy Bartolic**, recently retired as executive director of the Ontario Farm Fresh Marketing Association, a position she's held since August 2004. She's refocused on her flower business, Perennial Petals. Taking over the reins is **Kevin Vallier**, based in St. Catharines.

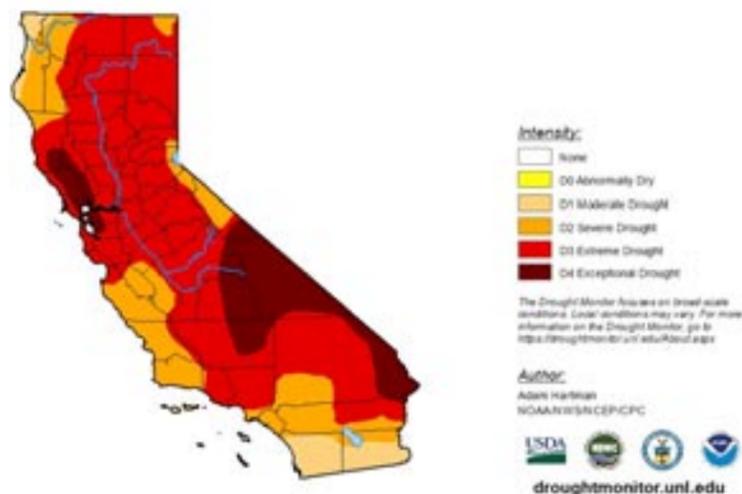
The Prince Edward Island Wild Blueberry Growers have announced the 2021 board of directors. **Benny Nabuurs**, president, is joined by **David Atkins**, vice-president and **Leigh Jenkins**, treasurer-secretary. Completing the director roster are: **Willie Bevan**, **Edward MacAulay**, **Brian McInnis**, **David Crocker**, **Peter Handrahan**, **Kevin McKenna**.

## INTERNATIONAL

### Drought emergency declared

U.S. Drought Monitor  
California

May 18, 2021  
(Released Thursday, May 20, 2021)  
Valid 8 a.m. EDT



California's governor Gavin Newsom declared a drought emergency for 41 out of the state's 58 counties on May 10. The broad area covers the highly productive Central Valley and Klamath basin. About 40 per cent less snowfall than average has meant that reservoirs have not been recharged with snow melt.

Media reports say that growers in the Central Valley are receiving only five per cent of their expected water allocations from the state.

Source: U.S. Drought Monitor, as of May 20, 2021

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COVER STORY

# Supply chain hotspots need a shot in the arm

“

If there is not a concerted effort across the supply chain to ensure pallet availability for shipment of produce, there is little doubt that it will be very difficult, if not impossible, for the grower/shipper community to meet buyer, and ultimately, consumer demand for produce.

~ JANE PROCTOR

”

Continued from page 1

“A concerted effort across the supply chain is required to ensure pallet availability for shipment of produce, to meet buyer and ultimately, consumer demand for produce,” says Proctor.

Early indicators are that Canadian stakeholders are already focussed on finding a means to mitigate impacts and ensure produce continues to flow through the supply chain – a welcome effort given that local produce is coming to market now. CPMA and a clutch of North American associations are banding together with industry stakeholders to find a safe, dependable solution until the pallet shortage is resolved.

Over on the labour front, Canadian growers are facing an unwelcome and unexpected drop in federal financial support for the 14-day quarantine period. Agriculture and Agri-Food Canada has announced that current compensation of \$1,500/worker will drop to \$750 as of June 15. Research by the Ontario Fruit and Vegetable Growers’ Association (OFVGA) shows that estimated costs of \$3,125 per worker for hotel accommodations are double the costs of on-farm quarantines. (See chart: Costs for initial 14-day quarantine, per worker).

“Growers have shared that these requirements have forced them to take out loans, draw on lines of credit and dip into savings so that they can attempt to secure a workforce for the 2021 growing season,” says Bill George, chair, OFVGA. “Some have shared that they no longer know why they are doing this and may stop production because the costs are not sustainable for their operations.”

To address the crumbling supports and complete withdrawal of the Mandatory Isolation Support for Temporary Foreign Workers (MISTFW) by August

31, 2021, the OFVGA is lobbying hard for government to continue supporting a minimum of \$1,500 per worker for as long as the Quarantine Act is in force and the isolation protocol is followed.

“The industry appreciates the steps that the federal government has taken to ensure that temporary foreign workers can continue to arrive and perform their critical role in Ontario’s food production,” says George. “The federal government’s Quarantine Act has imposed substantial additional costs on the employers of TFWs and the MISPTFW has offset many of those costs, which cannot be recovered through the marketplace. We agree that pandemic-related programming will need to come to an end, but expect that the sunset of this funding support to align with the end of the quarantine requirement, and not before. That’s exactly what the federal government committed to do when they introduced this program.”

While these talks unfold, growers have an imperative to obtain consent from and vaccinate as many farm workers as possible as quickly as possible. At Pearson International Airport in Toronto, about 3,000 incoming workers have been vaccinated with uptake of about two-thirds of arrivals. The Ontario Food Terminal, with support from the City of Toronto, invited farmers and front-line workers to sign up for a clinic held May 10-17, 2021.

“Just under 6,900 frontline Ontario Food Terminal workers, Ontario agri-business essential workers and their immediate families received their first vaccinations,” reports Gianfranco Leo, manager, administration, Ontario Food Terminal Board.

These numbers reflect the national drive to vaccinate 75 per cent of citizens, a benchmark that Prime Minister Trudeau considers critical to opening the



### Costs for initial 14-day quarantine (per worker)

	Scenario 1: On Farm Accommodations	Scenario 2: Hotel Accommodations
Wages	\$955	\$955
Day 10/8 Test (new in 2021) (nursing and transportation)	\$162	\$162
Utilities and support costs	\$210	n/a
Room rental (e.g. hotel)	n/a	\$1,540
Meals	\$420	\$630
<b>Total 14-day cost per worker</b>	<b>\$1,747</b>	<b>\$3,125</b>

### Added quarantine costs eg. due to day 10/8 test complications (per worker per day)

	Scenario 1: On Farm Accommodations	Scenario 2: Hotel Accommodations
Wages	\$68	\$68
Utilities and support costs	\$15	n/a
Room rental (e.g. hotel)	n/a	\$110
Meals	\$30	\$45
<b>Added cost per worker per day of added quarantine</b>	<b>\$113</b>	<b>\$223</b>

Source: Ontario Fruit and Vegetable Growers’ Association

Canadian-American border to more normal traffic flows. The border has been closed to all but essential goods and workers since March 2020.

Can the benchmark be reached in time to open the border for the national holidays of both countries? And if so, what new e-document will be mandated to support such an opening? The only certainty to come out of COVID is that the news changes at the speed of the internet, so stay posted.

**The Grower goes “Behind the Scenes” with Ron Gleason, Hillside Farms, Bradford, Ontario, for his perspective on the shortage of pallets and business impacts. This series is sponsored by BASF Agricultural Solutions.**



CROSS COUNTRY DIGEST

ALBERTA

## Radiance's reach is expanding

Two new Canadian sweet potato propagators are joining American-based Jones Family Farms in bringing Vineland's early-maturing sweet potato Radiance to Canadian commercial growers and avid home gardeners.

Alberta Sweet Potatoes will be growing Radiance slips for the first time in 2021. Located in Jenner, Alberta the new enterprise

is led by grower Stephanie Lessner and parents Marjorie and James Larson. Experienced livestock and grain farmers, this family team identified the need in the Canadian Prairies for sweet potato slips and realized how uniquely positioned they are to supply this emerging market.

"I am excited about the opportunity of supplying growers in British Columbia and the

Prairie provinces where sweet potato cultivation is growing and access to slips through traditional suppliers can be a challenge," said Lessner.

Alberta Sweet Potatoes will have a limited supply of Radiance slips for sale in 2021. But with expected increasing demand from western Canadian growers, plans are in place to expand production in coming years.



MANITOBA

## Growers planting into dry conditions

It's so dry in some regions of Manitoba that potato growers turned on irrigation in early May. That's the report of Dan Sawatsky, general manager, Keystone Potato Producers' Association. The overall prairie picture is reflected in Agriculture and Agri-Food Canada's map illustrating drought concerns as of May 7.

"Depending on the soil type, it's powder dust," says Sawatsky. "Conditions are very dry west of Portage la Prairie. There are some water reservoirs to draw from, but some of them will not be filled this season."

Dr. Vikram Bisht, potato and horticulture specialist, Manitoba Agriculture, confirmed these field observations in his first weekly report in mid-May.

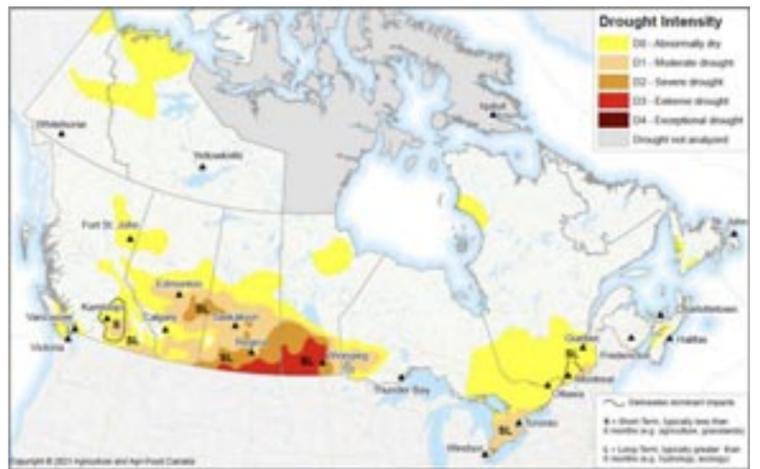
"During planting period, the soils were warmer than in 2020. But the soil moisture is low, ranging from 13 to 25 per cent moisture by volume at five cm depth, and 18 to 30 per cent at 20 cm depth," says Bisht.

Planting started on April 23, was in full swing by Monday April 25. By May 9, more than 75 per cent of the potato planting was finished.

The good news is that

contracted volumes are back to 2019 levels. According to the United Potato Growers of Canada (UPGC), Manitoba should see a substantial processing acreage increase to meet the final ramp-up for a new French fry plant expansion in Portage La Prairie. UPGC is expecting acreages to reach 73,000. This would be up from 71,500 acres in 2019 but not likely sufficient to meet the needs of the new factory. The challenge is to find or convert acres currently growing other crops into potatoes.

Acreage for table potatoes will be similar to 2020 however a



difficult marketing season for reds will spearhead movement over to more yellow potatoes.

As always, growers are an optimistic bunch and hope for timely rains throughout the

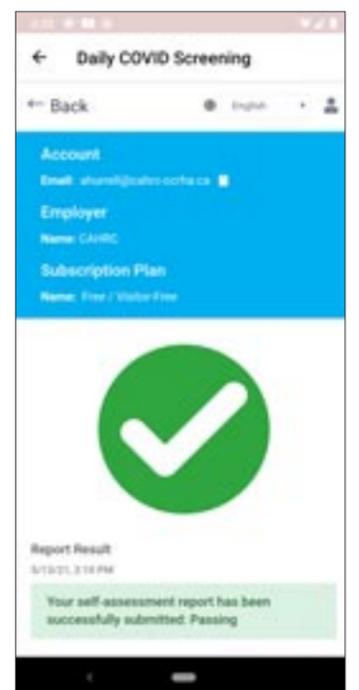
season.

Source: United Potato Growers of Canada, Agriculture and Agri-Food Canada May 7, 2021 news release

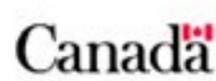
# NEW - DAILY COVID SCREENING APP FOR EMPLOYERS IN ONTARIO

COVID-19 screening of workers - in accordance with local health unit direction - is a requirement for Ontario employers under the Reopening Ontario Act. This app is being provided to make it easier for growers to fulfill this requirement.

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Thanks to the government funding, this program is offered at NO CHARGE to Ontario growers for the full 2021 year. Go to <https://www.ofvga.org/screening-app> or scan the QR code to download the HUB Connect App and get access to the free daily screening feature for the rest of 2021.



CROSS COUNTRY DIGEST

PRINCE EDWARD ISLAND

# Potato Board launches podcast Spudchat

The Prince Edward Island Potato Board is launching a podcast, Spudchat. Hosted by Ryan Barrett, research and agronomy specialist, the weekly podcast will feature conversations with a variety of farmers, researchers, agronomists, and industry partners. Spudchat will primarily focus on agronomic topics of importance to potato farmers, including pest and disease management, soil health, improved crop rotations, seed management, precision agriculture, and more.

“Increasingly, farmers are getting information in a variety of different methods,” notes Wayne Townshend, chair, PEI Potato Board. “Podcasts, which can be downloaded at a convenient time

and listened to in the tractor or truck, is another way to share information on innovative technologies and improved practices with our membership.”

This podcast is available to stream or download at <https://spudchat.buzzsprout.com/>.

Spudchat is also available on Spotify, Stitcher, and other podcast platforms and will be available on all other major podcast directories in the coming weeks. New episodes will be available every Wednesday.

The Spudchat podcast was born out of the Agronomy Initiative for Marketable Yield (AIM), a three-way funding partnership between Island potato farmers, Cavendish Farms, and the Province of Prince Edward Island, as well as expertise from Agriculture & Agri-Food Canada. More information on AIM can be found at [www.peipotatoagronomy.com](http://www.peipotatoagronomy.com).

Source: PEI Potato Board April 27, 2021 news release



NOVA SCOTIA

# Lack of availability of inputs hinders farm operations



It's another spring in the Annapolis Valley navigating the challenges of COVID-19.

“It's our second spring in a full lockdown as we are prepping land and preparing another year of planting, but we are more prepared for the challenges the pandemic presents to us than we were at this time last year,” says Susan Sipos, account manager, Country Magic Produce, Centreville, Nova Scotia.

“Lack of availability of inputs continues to surprise us, as well as increased costs throughout the supply chain. If we have learned anything from the last year it's that even the best laid plans can change on a dime and we are constantly working collectively to ensure the work gets done to put product on grocery shelves and food on Canadian's plates.”

For the 2021 season, labour continues to be a challenge but thanks to the return of temporary foreign workers as well as domestic seasonal workers, the farm operation based at Centreville, Nova Scotia is getting ahead.

Source: Country Magic Produce May 7, 2021 newsletter

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NEW WEBSITE

# Berry Growers of Ontario target online sweet spot with website launch

Timed with the earliest field-berry season ever, the Berry Growers of Ontario (BGO) have launched a new website that hosts individual “storefronts” for each of its 200 growers. The BGO site at [www.ontarioberries.com](http://www.ontarioberries.com) aims to intersect with house-bound consumers, hungry for fresh local food and outdoor experiences.

“This new website puts us ahead in communicating directly with consumers and offering a direct path to each of our 200-plus growers,” says Tom Heeman, chair, Berry Growers of Ontario, pointing to the interactive map on the website. “Each grower has the ability to quickly update their hours of operation and on-farm picking conditions in real time. We think this is a game-changer for reaching millennials, in particular, who want a look-and-click solution to their food sourcing and hyper-local activity browsing.”

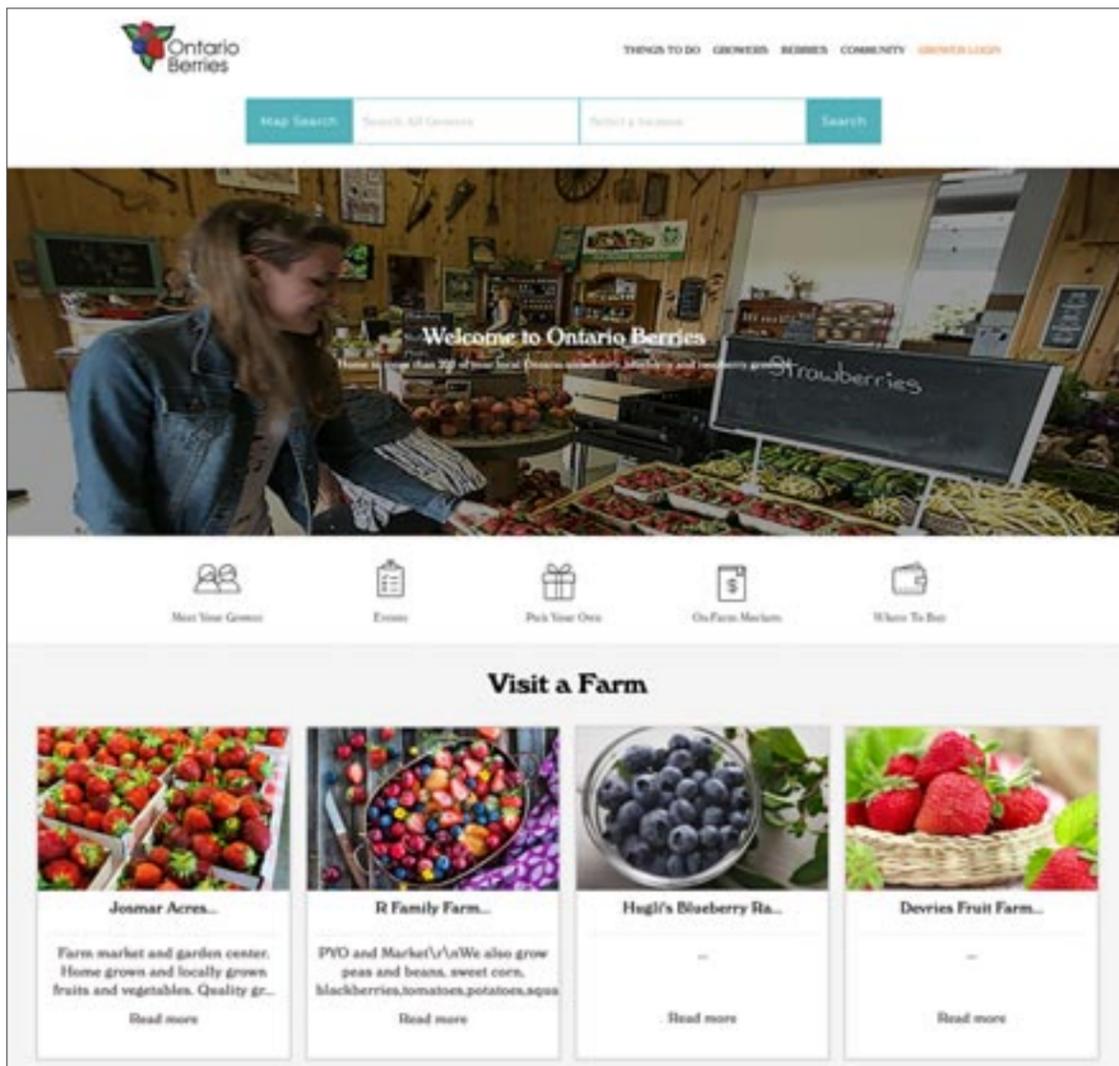
The website provides a range of easy access points, including Meet Your Grower, Farm Events, Pick-Your-Own, On-Farm Markets and How-To Videos. The recipe section is extra-special with a Strawberry

Pavlova recipe created for the website by the late Anita Stewart. Many other cookbook authors, including Elizabeth Baird and Marcella DiLonardo, have generously contributed their individual sense of the seasons using fresh local strawberries, available now, and raspberries and blueberries later this summer.

As Ontario’s berry season unfolds, [ontarioberries.com](http://ontarioberries.com) will continue to provide dynamic content from individual growers as new photos, social media and availabilities are updated in the moment for consumers to follow easily. It’s a kaleidoscope of berry possibilities.

BGO’s new website salutes Ontario innovation for extending the season and enhancing the quality of local berries through development of long-cane raspberries, table-top strawberries and year-round greenhouse-grown strawberries.

BGO thanks the Canadian Agricultural Partnership for funding of this project. The Ontario berry sector is valued at about \$40 million annually for local consumption.



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NEW CROP YEAR

# Asparagus ramps up

KAREN DAVIDSON

workers coming out of 14-day quarantines in time for the May and June 2021 harvest.

Due to minus 5°C temperatures in late April, only spot quantities of Ontario asparagus were available the week of May 3. On-farm markets, rural roadside stands and the odd small retail chain were the beneficiaries of the slim pickings.

“There have been no big flushes of grass,” reports Bernie Solymar, executive director, Asparagus Farmers of Ontario. “Some asparagus will start appearing at the Ontario Food Terminal by May 17, but major retailers won’t have large quantities until the following holiday weekend.”

Excellent quality is expected once the season is underway from about 4,000 acres of asparagus. In addition to supplying the Ontario market as well as other parts of Canada, exports of asparagus to the eastern U.S. seaboard are anticipated.

To date, foreign supplies of asparagus are tapering with the end of the Mexican growing season and New Jersey asparagus has been absorbed in the domestic U.S. marketplace. A small amount from Washington state and some organic Peruvian asparagus have been reported in some retail stores in the province. That leaves an Ontario marketplace that has pent-up demand for the first field vegetable of the season.

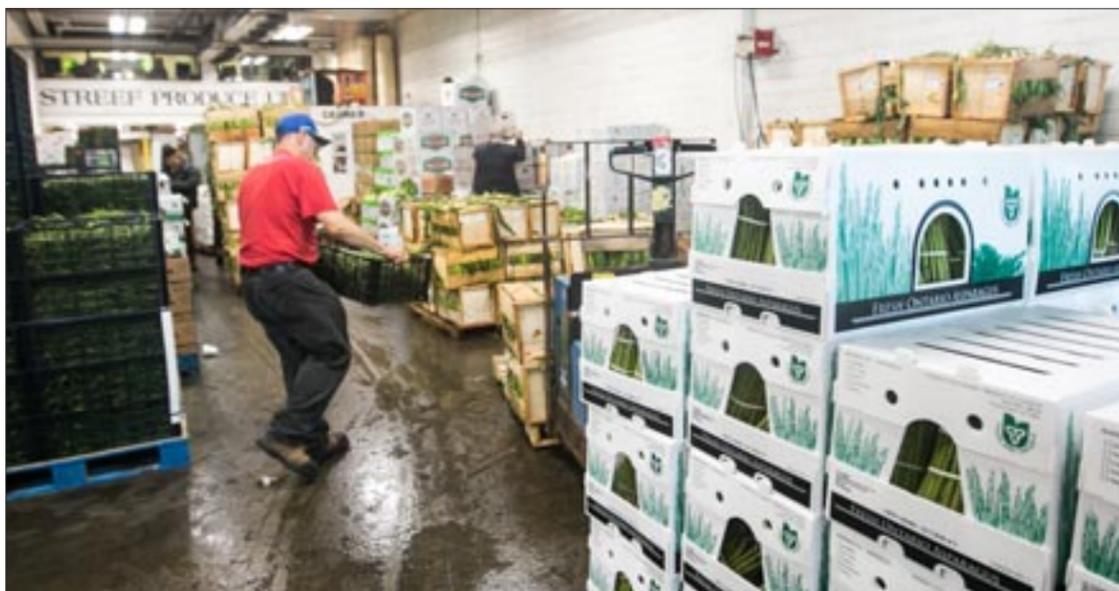
“Demand is strong for Ontario asparagus,” says Solymar, “due to a desire from consumers for local produce, trends towards healthier eating and the impact of food influencers.”

For the first time, Asparagus Farmers of Ontario have worked directly with major retailers to promote local asparagus. Expect Loblaw to make a push with PC points on asparagus from the last week of May to the end of June. Metro is holding a display contest. Fortino’s will be featuring asparagus for three weeks with support from three recipes. Costco will be involved with a social media promotion.

This new approach is hoped to create momentum that was once carried in pre-pandemic days by the Foodland Ontario retailer display contest. This year, no Foodland Ontario reps are able to visit stores in the midst of the current provincial lockdown that’s been extended to at least June 2.

For produce managers in retail stores, a tipsheet has been created for in-store staff on how to correctly display asparagus to best advantage.

Optimism is high that the season will roll out much differently than the 2020 season which was impacted severely by the lack of seasonal labour. Growers are handling pandemic rules with more planning to have



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## CHAIR'S PERSPECTIVE

## Our side of the story



**BILL GEORGE JR.**  
CHAIR, OFVGA

Another growing season is underway, and although there is some light at the end of the COVID tunnel, to say that things continue to be far from normal would be an understatement.

Seasonal workers have been arriving in Ontario for several months, and it has been and continues to be a challenge for all involved: growers, FARMS/CanAg Travel, and the workers themselves. On the positive side, we appreciate the provincial

government prioritizing farmers and farmworkers in the vaccination rollout, which we asked for once prioritization discussions began.

Labour challenges are not new to our sector. Since long before this pandemic, fruit and vegetable growers have struggled with a sometimes confusing and contradictory multi-level system of regulations, dealt with activist threats, and worked hard to maintain access to the consistent, reliable workforce we depend on. There's no denying that horticultural crops require more human labour than most other types of agriculture. Automation solutions are in development, but many of the fruits and vegetables Ontarians love need growing and harvesting skills that a machine can't yet provide.

The pandemic certainly put our industry, growers and workers front and centre in the public eye last year. The media lens, too, has increasingly been focused on farms and migrant labour.

Unfortunately, the coverage

isn't always accurate or balanced - and that wrong narrative is an additional source of growing frustration in our sector.

We know first-hand how vital seasonal workers are to our sector, the skills they bring to our operations, and what they're able to accomplish for their families and communities in their home countries by coming here to work.

We know the benefits they receive and the protections they have under the Seasonal Agricultural Worker Program, and how keen they are to work and earn as much as possible during the months they are here.

We also intimately know the limitations of a short growing or harvest season, the amount of work that needs to be done in a tight window of time subject to nature's calendar, and the fact that fruit and vegetable growing is not a nine-to-five, five-day-a-week job.

What we sometimes forget is that those are all things most media and members of the

general public don't know, and anti-labour activists are diligent and relentless in pushing out their messages on a wide range of channels and to a broad audience. This is an issue that was raised in the form of a resolution at the Ontario Fruit and Vegetable Growers' Association (OFVGA) annual meeting this past winter, and although the resolution itself didn't pass, I want you to know that we heard the message behind it.

OFVGA has always focused primarily on its role as a lobby organization, making sure the grower voice is heard by government. It's a job we do well, but we also need the grower voice to be heard by media and by consumers, particularly with respect to labour, so that our sector is part of the public dialogue on this issue.

That's why we're working on developing a new online resource that will provide accurate, up-to-date information on seasonal workers, our horticulture crops, answers to many frequently asked

questions, and profiles of growers and workers willing to share their stories about what they do and why they do it.

This will be complemented by social media campaigns and media outreach to help get the message out. Some content will be new, but we will also be repurposing and adapting from the many great resources and campaigns our member organizations and partner groups such as the Canadian Horticultural Council have already developed.

It's a project led by OFVGA, with a small working group of staff from our organization, Ontario Greenhouse Vegetable Growers, Ontario Apple Growers and Farm & Food Care Ontario working behind the scenes to make things happen between now and October.

If we don't tell our story, someone will tell it for us, and chances are, we won't like what they have to say.

## WEATHER VANE



'Tis berry season but this is not your father's strawberry farm! The Dutch technique of growing strawberries at table-top level is now in its third year at Gary and Diane Cooper's farm near Simcoe, Ontario. The advanced hydroponic technology is adapted to tunnels where environmental conditions are more controlled while allowing for less worker stress in harvesting. Here, temporary foreign workers are trimming the runners to encourage energy to flow into flowering and fruiting. Photo by Glenn Lowson.

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## New initiatives for Canadian Centre for Food Integrity

Agriculture More Than Ever, created in 2012 by Farm Credit Canada to improve perceptions of agriculture, is moving under a new umbrella. The Canadian Centre for Food Integrity will now steward the social media forum.

With more than 94,000 followers across multiple social media channels such as Facebook, Twitter and Instagram, it has also been the driving force behind Canada's Agriculture Day, launched five years ago to celebrate Canadian agriculture, food and everyone who works in the industry.

"It is important to acknowledge the excellent work that Farm Credit Canada has done to promote public trust in the Canadian food system through Ag More Than Ever," said John Jamieson, president &

CEO of CCFI. "This shift complements the work we've been doing since 2016, when CCFI was formed to help earn public trust in Canada's food system. The synergies with Ag More Than Ever will support our activities in sustaining public trust for decades to come."

This initiative complements the centre's "It's Good, Canada" campaign which just received \$244,000 in federal funds.

"We are very excited to receive this funding from the Government of Canada for It's Good, Canada," says John Jamieson, president and CEO, CCFI. "Building public trust in Canadian food is an important component of the Canadian Agricultural Partnership and this support complements the work we've been doing since 2016, when CCFI was formed to help



**Cathy McKay, chair of Ontario Apple Growers, supervises tying of apple trees in her orchard Nature's Bounty near Port Perry, Ontario. This is part of the story to be told to consumers about labour-intensive, high-density orchard management that's needed to produce top-quality, local apples. Photo taken pre-pandemic by Glenn Lowson.**

earn public trust in Canada's food system. This contribution will be used to highlight the outstanding

work of farm families and others who continue to deliver safe, nutritious food to Canadians and

people around the globe." To go to the website, link here: [www.foodintegrity.ca/](http://www.foodintegrity.ca/)

**LOCAL FOOD WEEK IN ONTARIO, JUNE 1-7 108**

## Promoting local food literacy is a good place to start the conversation with consumers

Ontario's farm and food processors provide more than half of what the people of Ontario eat. Understanding the journey that Ontario food takes – from the farm gate to the table's plate – is important for those trying to eat healthy, for families looking to support local farmers, and for institutions balancing their clients' dietary needs and their

budgets.

Foodland Ontario leads this initiative, working with farmers, food processors, grocery stores and others to promote the dozens of Ontario-grown and Ontario-crafted beverages.

For those on social media, use #LocaFoodWeek.



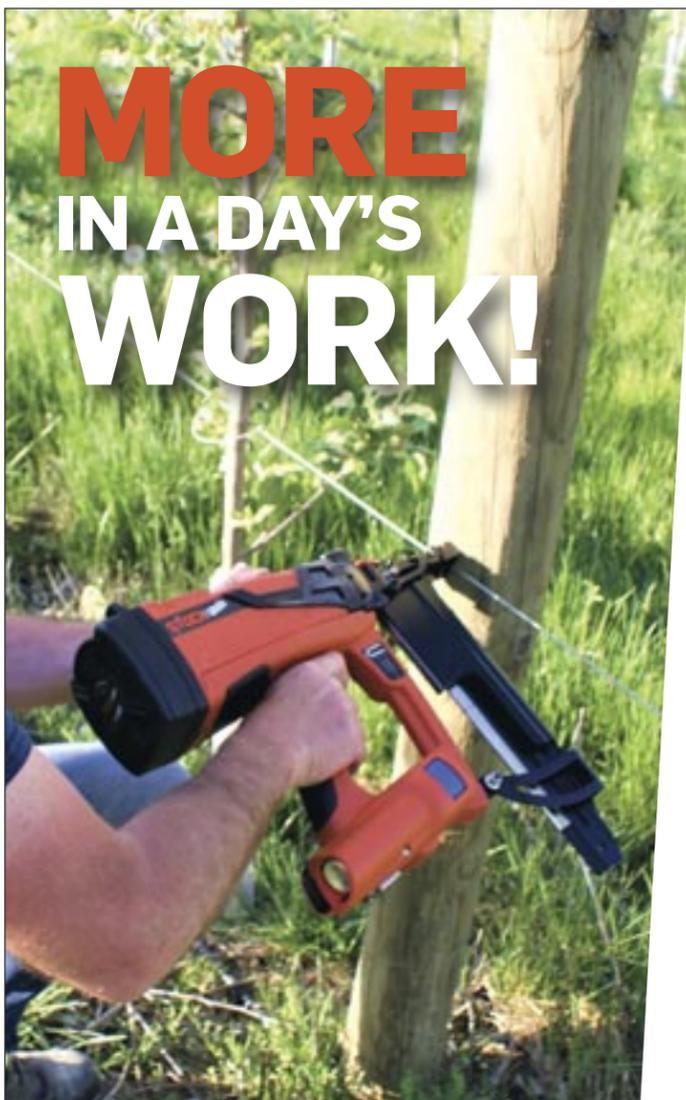
**SCENE ON TWITTER**



**Michelle Cortens @NSTreeFruit · 6h**  
Blossom update @NSPerennia from yesterday afternoon. Pears are hastily in full bloom. Apples are in bloom on varieties like Idared and Gravenstein. Love those rose-like blossoms on grays. Plums are still in bloom, cherries are wrapping up and peaches are dropping their petals.



British Columbia MP Alistair MacGregor (Cowichan-Malahat-Langford) and NDP ag critic tweeted on May 8: "It's always a good week-end when it's #rhubarb harvesting time. Some of these monsters weighed in at 8 ounces for a single stalk. #CdnAg"



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## BITES AND BITES

## Packaging and food waste unwrapped

Value Chain Management International and Packaging Technology & Research have released their joint North American paper on plastic packaging and food waste, and the need for governments and industry to commit and be accountable for implementing collaborative solutions — “Unwrapping the Arguments ...Solving packaging and food waste through government /industry collaboration.”

As the paper concludes, the complexity of packaging and food value chains means that implementing “one-size-fits-all” hammer policies (such as the Canadian Environmental Protection Act) to increase the use of recyclable plastics will not reduce greenhouse gas (GHG) emissions.

In fact, hammer policies will increase GHG emissions due to forced changes in packaging leading to increased food loss and waste (FLW) and the subsequent impact on the environment says

co-author Martin Gooch.

The research paper proposes establishing a negotiated agreement between industry and government that sets out explicit packaging and FLW targets.

Key findings:

- A tandem focus on food and packaging waste is needed to meet GHG emission targets.
- GHG emissions that result from food sent to landfill are greater than the GHG emissions of plastic food packaging.
- The need for negotiated agreements is particularly critical in federated countries such as Canada and the U.S., where provinces/states and municipal governments can impede efforts by having implemented conflicting regulations and misaligned systems.
- Industry must be the driving force for change, with visionary leaders committing to achieve and be accountable for bold targets, and investing in the creation of harmonious precompetitive solutions.



- Government-implemented policies, regulations, and programs need to incentivize and assist industry in addressing barriers that inhibit the establishment of circular packaging economies, without negatively impacting the FLW reduction efforts of the food industry, NGOs, and consumers.
- Whether packaging is both recyclable and recycled is determined by the level of alignment that exists between three sub-systems: 1) products, 2) process, and 3) infrastructure.

- The three key features of effective extended producer responsibility (EPR) programs are 1) fees, 2) investment in the circular economy, and 3) reporting and incentives.
- EPR fees must reflect legally enforceable standards and specifications for entire packaging solutions, not just an individual component of the packaging.
- An important element of effective EPR programs is ensuring municipal governments

are legally accountable for implementing the required systems and processes, and that they publicly report their performance in relation to targets contained in negotiated agreements.

For an executive summary, link here: <https://bit.ly/3eWVfVR>

Source: *Value Chain Management International May 18, 2021 news release*

## Ontariofresh.ca has gone 2.0!

The province’s largest local food platform, connecting buyers and sellers of Ontario-grown products has added a new business-to-consumer (B2C) service.

It allows producers, processors, and other food and drink vendors to connect with and market their products to consumers. And, it’s free!

If you haven’t explored Ontariofresh.ca before, we encourage you to do so now. Whether you have a full-scale e-commerce marketplace or you are just beginning to explore the e-commerce world, Ontariofresh.ca can help you expand your visibility and directly reach consumers.

If you have any questions about joining the platform, please don’t hesitate to contact the Greenbelt Fund at [info@ontariofresh.ca](mailto:info@ontariofresh.ca).

Source: *Greenbelt Fund*

## COMING EVENTS 2021

- June 1 - 7 Local Food Week, Ontario
- June 9 Ontario Produce Marketing Association Annual General Meeting, VIRTUAL
- June 24-26 United Fresh Convention and Expo, Los Angeles, CA CANCELLED
- July 26-29 Potato Association of America Annual Meeting, VIRTUAL
- July 31 Food Canada Day
- Aug 11-12 AgriExpo, Grands Falls, NB
- Sept 7-9 Macfrut, Rimini Expo Centre, Italy
- Sept 8-10 Federal-provincial-territorial agriculture ministers’ conference, Guelph, ON
- Sept 23-27 Canadian Farm Writers’ Federation Annual General Meeting, Windsor, ON
- Sept 28-30 Asia Fruit Logistica CANCELLED
- Oct 6-7 Canadian Greenhouse Conference, VIRTUAL
- Oct 13-14 Public Trust Summit, Canadian Centre for Food Integrity, Toronto, ON
- Oct 28-30 Produce Marketing Association Fresh Summit, New Orleans, LA LIVE
- Nov 5-14 Royal Agricultural Winter Fair, Exhibition Place, Toronto, ON
- Nov 4 -6 Interpoma, Bolzano, Italy
- Nov 22-24 Alberta Potato Conference and Trade Show, Cambridge Hotel and Conference Centre, Red Deer, AB
- Nov 30-Dec 2 Grow Canada Conference, Calgary, AB

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## RETAIL NAVIGATOR

## Planning in uncertain times



PETER CHAPMAN

The whole pandemic has made it difficult to forecast and plan for the future. So much has changed, from where people shop to how people shop to what they buy. Despite all of these changes we still need to make plans and do our best to forecast demand in the future.

It is true you can ask your customers for a number but I would encourage you to have your own number to start the conversation. During my time with a major retailer, I respected the suppliers who would do the work to forecast sales. Then we could spend the time finetuning that number. Remember, it is not your customer's job to do your work, part of which is forecasting sales.

**Focus on what you do know**

Despite all of the change, you do know a number of factors required for a good forecast. You should know your history of sales. It is important to understand what you produced but also how much went to each customer. We know retail sales have been up and food service sales have been down. Consider the channel you are selling into and how it will perform in 2021.

We expect retail to stay strong into the fall of 2021. As vaccines roll out there continues to be a lot of uncertainty so even if restrictions are limited people will probably stay close to home. It is getting too late for people to make plans for anything too elaborate. With the strong sales in 2020, these are a good base line for many categories. Remember if you are using history, check to see if you had any periods where you were not able to fulfill demand. In other words, if you shorted product, you might need to consider this in your plans. You might need to consider some more during times you were not able to meet demand.

We also know consumers are changing. Consider the following consumer trends:

1. People are working from home more, which will change what they eat.
2. E-commerce is becoming a much more important channel.
3. Consumers are looking for

more Canadian and local products.

4. People are eating breakfast at home
5. Plant-based meals are more popular
6. People value food more

It can be a challenge to determine how a particular trend will change your sales by a certain amount. An example where the trends do need to be considered is e-commerce. We believe 12-15 per cent of food is being purchased online -- this can impact your sales. Consumers prefer to buy items that are packaged online. A product such as sweet corn might be a challenge because people like to look at the cobs they buy. It might be better to explore a six-pack and they will have some confidence you graded the product and they will get six good ears of corn.

**Talk to your customers**

Once you consider your history, what is happening in your business and the consumer trends, you can calculate a sales forecast. Once you have a forecast it is time to talk to your customers. You should provide a tentative start date, volume by week and if you do have a defined season, an end date. Often retailers are using a number of suppliers to fulfill their needs in produce so they will take your information and combine it with the numbers from their other suppliers. Explain how you got to the forecast and ask them what they see for the season. One question that can help, because we know produce is not perfect, is would they prefer you err with more product or less? If they say they would like to see you produce a bit more ask if they will help move it and get some commitments from them about that.

Agree on the numbers for the season.

**Keep talking to your customers**

Set milestones through the season to communicate with your customers. There are certain events during the production of a crop where you learn more. This could be bud set, populations or your labour showing up on time. Regardless of what they are for your crop, make sure you communicate updates to your customers.

Send them pictures and share how the milestone will impact the final numbers you had forecasted. It is important for them to know the good and the bad. The earlier the better so they can either confirm plans or find alternate sources of supply. Consumers in store are demanding so they will need to figure it out to keep their customers happy. We know in these challenging times, in stock

position is very important to consumers and they will switch stores if they cannot find what they want.

As you do a good job communicating through the season you can ask for more information from them as well. Find out how sales are trending and if they believe the forecast you created in advance will be close.

The final part of a good plan is follow-up after the season. Provide a brief recap of what worked and what didn't. This is the best starting point for next year that you can have.

**What's happening outside the store impacts how people shop in the store**

You have heard me say before how consumers are changing. What they buy, how they buy and so many other aspects of our industry are changing. Recently there were some big announcements we wanted to share with you.

Epicurious, a great app for recipes and culinary information announced they would not be



E-commerce is becoming a much more important channel. Photo taken pre-pandemic.

developing any more recipes that include beef. They have decided consumers are moving to more plant-based diets and they will no longer promote or share any beef recipes or cooking tips. They will continue to list the beef recipes already developed but they will not create any more. Link here: <https://bit.ly/3tQzJ9f>

In a separate, but related announcement, famous New York City restaurant 11 Madison Park announced they would be offering a 100 per cent vegan menu when they re-open. This world-renowned Michelin three-star restaurant has decided this is where their consumers are going and they will focus on a re-designed menu when they open. Link here:

<https://nyti.ms/2S0Fioe>

Although we do not see a significant increase in consumers wanting to live a vegan lifestyle, more are eating plant-based meals as part of their diet. You might want to develop recipes that appeal to consumers who are eating differently.

*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.*

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# UAP

CANADA

## FOCUS: LOGISTICS AND TRANSPORT TECHNOLOGY

## A refresher on the rights and responsibilities of truckers



Photo by Glenn Lowson

Just as the Dispute Resolution Corporation (DRC) Trading Standards set out the rights and responsibilities of buyers, brokers and sellers of fresh produce, the DRC Transportation Standards set out the fresh produce specific rights and responsibilities of truckers, transportation intermediaries, shippers, and receivers.

For some time, the DRC Transportation Standards have been viewed as more of a “suggestion” than as a vital part of product movement along the supply chain. Those days are over. Food Safety and Preventative Control Plans

(PCP) have focused attention on the supply chain, including the loading and unloading of produce.

Section 7 addresses loading the conveyance. For years the driver and the shipper had responsibilities for loading the conveyance. Documentation of pulp temperatures, reefer set points and condition of the conveyance should now be part of a shipper’s PCP.

Similarly, Section 9 addresses the documentation of temperatures and the condition of the load. These requirements should also be reflected in the receiver’s

PCP. That plan should include procedures to address and correct those issues.

Placing seals or locks on trailer doors is nothing new and is discussed in Section 7. Not that many years ago a seal’s primary use was protecting against theft, or that other unapproved cargo was not placed on board. Breaking that seal without authorization could result in rejection and give rise to contamination concerns. Today, breaking a seal may raise Food Safety concerns which could lead to a dispute.

DRC’s Transportation Standards are

designed to be the default standards between members, and they are compatible with today’s business practices. Parties are free to agree on other transportation terms and we are cognisant that sovereign laws may come into effect in international transactions. When making other arrangements be prepared for DRC to ask if the terms were “DUA” (discussed, understood, and agreed).

Source: Dispute Resolution Corporation April 28, 2021 newsletter

## Global Fruit moves cherries by road, air and ocean

KAREN DAVIDSON

A British Columbia cherry can count on two lives: one on the tree and one in transit.

“For cherries travelling in ocean containers, the journey time can be between two to four

weeks, depending on the destination,” says Richard Isaacs, commercial director for Global Fruit, Kelowna, BC. “These cherries are packed in laser-perforated bags which are specially designed to create a modified atmosphere that slows down the respiration rate of the

fruit and maintains quality so they arrive in perfect condition.”

Cherries are picked early in the day so the core temperature is not too high, then hydro-cooled to remove field heat. Then they enter the grading process where they are carried in chilled water and sorted by size, colour and



Global Fruit cherries are packaged in a 5 kg box with the modified atmosphere bag pulled open.

defects before final packing according to customer specifications. Finished pallets are blast chilled with forced cold air.

Specialist freight forwarding companies then take over the shipment, maintaining optimum temperatures between minus 0.5°C and zero.

BC cherries are famous for their high quality and many are exported, but as Isaacs explains, growers around the world have been expanding sweet cherry acreage for the last decade.

“In Europe and the UK, the demand for Canadian cherries has dropped in recent years as they become more self-sufficient,” he says. “We also see increased competition from countries such as Turkey, Uzbekistan and

Kyrgyzstan as they gain market access to countries in the Far East. However, customers who appreciate the very best are still keen to buy cherries from Canada because no country can consistently match the large, firm, sweet cherries we grow here.”

To remain globally competitive, Isaacs says that all of the company’s cherries are graded and packed on the Unitec Cherry Vision 3 optical grading lines. These are manufactured in Italy and are recognized globally as the best for handling cherries.

“We now have 72 lanes of Cherry Vision 3 grading capacity across our group, considerably more than any other Canadian cherry marketing company,” says Isaacs.

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**FOCUS: LOGISTICS AND TRANSPORT TECHNOLOGY**

# BC food companies are reducing emissions

“

I've always been a supporter of change.

~ DAVIS YUNG,  
PRESIDENT, FRESH DIRECT PRODUCT

”



The commercial transportation sector is a key actor in any economy and holds a place in the lifecycle of most of our products, goods and services. As an activity that is involved in so many aspects of daily life, including food delivery, its impact on greenhouse gas emissions can be significant.

In the province of British Columbia (BC), the commercial transportation sector accounts for approximately 40 per cent of greenhouse gas emissions. Not only does commercial transportation account for the largest share of emissions in the province, it's a significant area of opportunity for provincial utility FortisBC to support the province's emissions reductions goals.

FortisBC is a leading energy solutions provider, serving natural gas, electricity and renewable gas solutions to more than 1.2 million customers. FortisBC fuels more than 1,000 natural gas vehicles on BC roads today, most of them running on compressed natural gas, or CNG. Vehicles fuelled by CNG reduce emissions by up to 25 per cent compared to diesel, and are a more financially viable option as well. FortisBC provides CNG services to four transportation organizations working in the food services

industry: Fresh Direct Produce, City Wide Produce, Yen Bros Food Service and Coldstar Solutions.

Two organizations in particular, Fresh Direct Produce and City Wide Produce, shared their experience with CNG vehicles. Environmental benefits were a key driver for both organizations.

**Fresh Direct Produce**

Fresh Direct has six locations across BC, Alberta and Ontario. The team piloted two CNG-powered trucks and were so impressed that they are currently evaluating how to convert most of their fleet to newer, more environmentally friendly technology as quickly as possible.

"I've always been a supporter of change," says Davis Yung, president of Fresh Direct Produce. "I believe that it's not only necessary but important for businesses to take that next step. We can either proactively lead the change or be forced to make it. I encourage my fellow transportation organizations to always pause and ask themselves what they can do to make things better for themselves, others and the environment. For us, that meant being at the forefront of adopting newer technologies such



as CNG, and it was a great decision."

**City Wide Produce**

The City Wide Produce team was the first in BC to lease a CNG tandem truck and is expecting to adopt a CNG tractor this fall. Their experience with CNG transport vehicles has shown cost savings and trouble-free operation as well as a point of corporate pride in their work.

"I have two young daughters and I want to show both of them that we're a green company," says Gopal Gupta, founder and director of City Wide Produce.

"This is an industry that's deeply connected to the natural environment, starting with growing food from the soil. Our team at City Wide Produce is always looking for ways to fill businesses with freshness and help the earth so that this industry continues to flourish. I encourage fellow transportation companies to look at the aspects of their business that they have the means to further improve or advance, and take the leap. I'm always proud to showcase that we're using CNG technology"

In 2020, 13 BC organizations adopted 144 new CNG vehicles. Their operation is expected to save up to 45 per cent in fuel

costs each year. To help mitigate up-front costs of the transition, FortisBC provided almost \$2.3 million dollars in vehicle capital incentives to these customers.

Advancing natural gas for medium and heavy-duty vehicles, from truck fleets to buses, is a key avenue towards FortisBC's 30BY30 target, an ambitious goal to reduce its customers' greenhouse gas emissions by 30 per cent by 2030. This supports the province's own goals as laid out in the CleanBC plan.

For more information on natural gas for transportation in British Columbia, visit [fortisbc.com/est](http://fortisbc.com/est).

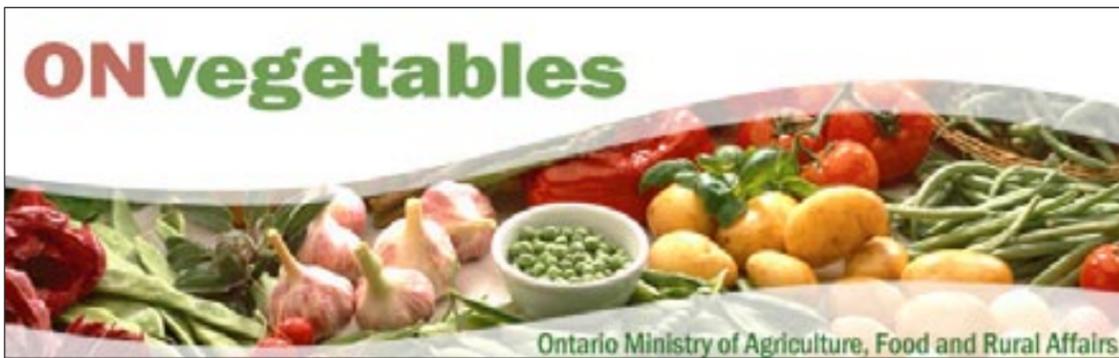




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## Using fungicides for Stemphylium leaf blight in onions

KATIE GOLDENHAR and TRAVIS CRANMER

Stemphylium leaf blight (caused by a fungus, *Stemphylium vesicarium*) of onion was first identified in Ontario in 2008 and has since become the most economically important disease in onions. The main management method for this disease is regular applications of foliar fungicides. However, many products are no longer effective against this fungus due to fungicide resistance. This is putting more pressure on the remaining effective fungicides. Growers should be aware that some fungicides that they have relied on for managing Stemphylium leaf blight may no longer be effective.

Stemphylium leaf blight starts as yellow-tan, water-soaked lesions that develop into elongated brown to black spots (Figure 1b). As the lesions grow, whole leaves will die back, and plants lose their photosynthetic ability. Onion leaves may die prematurely resulting in a reduced yield. Additionally, onions going into storage are typically sprayed with a sprout inhibitor before lodging. Plants need five to seven green leaves to take up the sprout inhibitor. If Stemphylium leaf blight kills most of the leaves, then sprout inhibitor cannot be applied, resulting in reduced storage and shelf life.

Early in the season, the symptoms of purple blotch, caused by *Alternaria porri*, look similar to those of Stemphylium leaf blight. Purple blotch lesions are tan to white with purple centers, while Stemphylium leaf blight causes tan lesions with black centers (Figure 1a). Botrytis leaf blight, caused by *Botrytis squamosa*, also causes lesions on onions but are easier to distinguish as they are smaller and irregular in shape with a greyish/white appearance (Figure 1c).

*Stemphylium vesicarium* spores are dispersed by wind and spores are present throughout the entire onion growing season, with spore counts increasing during the season. Stemphylium leaf blight lesions generally appear at the end of June to mid-July and continue to develop during warm temperatures with adequate rainfall or irrigation until harvest. Stemphylium vesicarium also causes purple spot in asparagus.

Annual fungicide efficacy trials conducted on Stemphylium leaf blight by the Ontario Research Station -Bradford (formerly the Muck Crops Research Station) in the Holland Marsh have shown reduced efficacy of many fungicides since 2013. Stemphylium vesicarium can develop resistance to fungicides over short periods of time. Populations of resistant fungi are selected for by repeated use of products with the same mode of action. In a field, the fungal population is quite variable, and some individuals can be more tolerant to the fungicide. These resistant individuals can survive the application of fungicides, reproduce and pass on their resistant trait. These traits are called mutations. As the frequency of resistant mutations increase in the field, fungicides become less effective. The main fungicides for management of Stemphylium leaf blight in onions have been in the FRAC (Fungicide Resistance Action Committee) groups 3, 7, 9 and 11. Fungicides fall within the same group when they have a similar target site in the pathogen.

Recent research out of Cornell University and the University of

Guelph have detected populations of *S. vesicarium* in onion fields with reduced sensitivity to FRAC groups 9, 11 and now, group 7 fungicides. All products labeled for use in Canada for Stemphylium leaf blight contain at least one of these fungicide groups. Approximately 50 samples were collected from 2018 and 2019 across the main onion growing regions in Ontario, and 90 per cent were insensitive to azoxystrobin (group 11) and 57 per cent were insensitive to pyrimethanil (group 9) in laboratory sensitivity studies. In 2020 samples, this increased to where there was at least 90 per cent resistance to both fungicides. In New York, multiple resistance genes have been detected for group 7 fungicides, and as a result, some group 7 fungicides might be more effective than others. Reduced sensitivity in laboratory and field studies to the group 7 fungicides boscalid, fluopyram and fluxapyroxad have all been seen in New York. Until we better understand our local population, growers should use caution when relying solely on these FRAC groups for management of Stemphylium leaf blight.

Certainly, there are other foliar

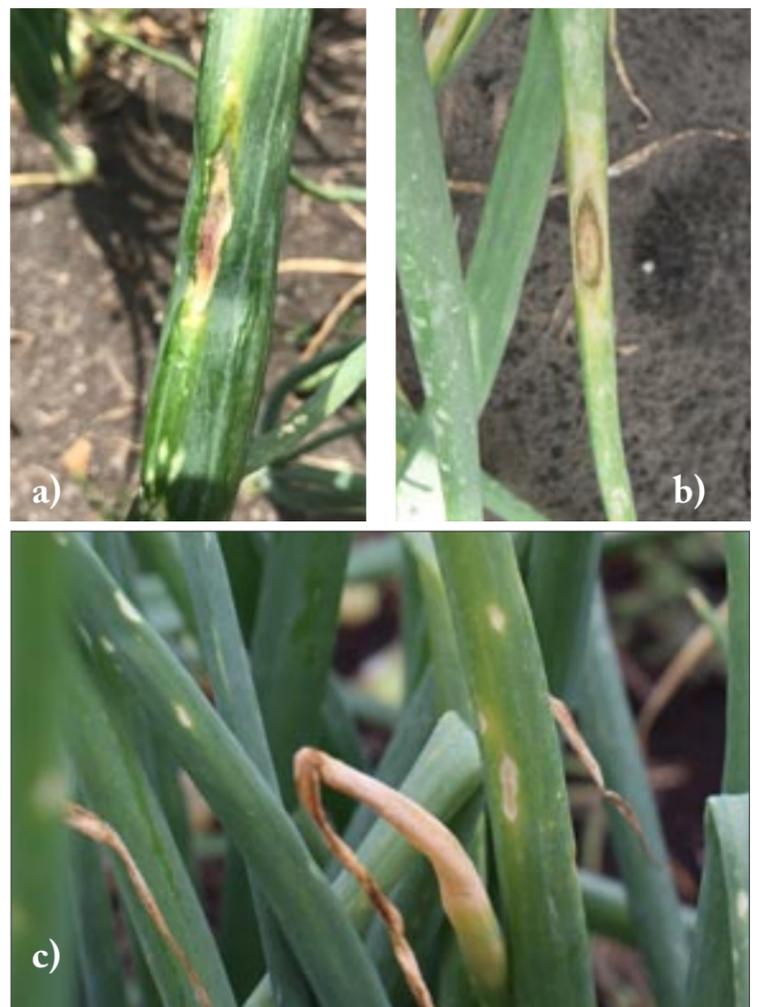


Figure 1. Onion with a) purple blotch lesion, b) Stemphylium leaf blight lesion, c) Botrytis leaf blight

diseases present in an onion field such as Botrytis leaf blight and purple blotch and these fungicides can still be effective on these diseases. When using fungicides, follow these best management practices to reduce resistance development;

- Use fungicide groups in rotation.
- Where possible, incorporate effective broad-spectrum, multi-site fungicides (group Ms such as chlorothalonil or mancozeb) as well as biofungicides as these have a low risk of resistance development.
- Limit the number of total

applications per season per FRAC group.

- For group 7 fungicides, if using a solo formulation such as Sercadis or Aprovia, apply in strict alternation with other fungicide groups and only use in 1/3 of total applications.
- Luna Tranquility and Quadris Top are mixtures (see table 1), but only one group in each of these products is effective against Stemphylium leaf blight, so these should be treated as solo products.

Continued on next page

Table 1. Stemphylium Leaf Blight Disease Management — Onion, Leek and Shallot					
For resistance management, rotate between fungicides from different chemical groups.					
LEGEND: PHI = Pre-Harvest Interval (in days)					
Group Name (Group #)	Common Name	Trade Name	Rate	PHI	Notes
<b>STEMPHYLIUM LEAF BLIGHT</b>					
SDHI (group 7)	fluxapyroxad	Sercadis	250–333 mL/ha (101–135 mL/acre)	7	Onions, leeks and shallots. Suppression. Do not use on areas treated with product the previous season. Do not make sequential applications of any group 7 fungicides. See label for rotational crop restrictions. 12-hr restricted entry interval.
	benzovindiflupyr	Aprovia	750 mL/ha (304 mL/acre)	7	Suppression. Do not make sequential applications of any group 7 fungicide.
SDHI/ DMI (group 7/3)	pydiflumetofen/ difenoconazole	Miravis Duo	1 L/ha (0.4 L/acre)	7	Bulb onion. Suppression. Do not make sequential applications of any group 3 or group 7 fungicide. 12-hr restricted entry interval.
SDHI/AP (group 7/9)	fluopyram/ pyrimethanil	Luna Tranquility	1,200 mL/ha (486 mL/acre)	7	Onions, leeks and shallots. Suppression. Do not make sequential applications of any group 7 or group 9 fungicides. See label for restricted entry intervals.
QoI/DMI (group 11/3)	azoxystrobin/ difenoconazole	Quadris Top	710–1,000 mL/ha (287–404 mL/acre)	7	Onions, leeks and shallots. Suppression. Do not use on areas treated with product the previous season. Do not make sequential applications of any group 3 or group 11 fungicides. See label for rotational crop restrictions. 12-hr restricted entry interval.

Table 1. Registered products listed in OMAFRA's Vegetable Crop Production Guide, 2021 (omafra.gov.on.ca/english/crops/pub838/pub838.pdf)

ONTARIO VEGETABLE NEWS

# Using fungicides for Stemphylium leaf blight in onions

Continued from last page

- When using a group 7 in a mixture (such as Miravis Duo or tank mixing a solo group 7 with mancozeb), do not make more than 50 per cent of your applications with group 7 containing fungicides.
- Avoid using a group 7 as the first foliar application if the seed was treated with a group 7 (such as Pen 240FS).
- Start applications early, before the disease becomes severe the crop. Research from Michigan State University has shown that starting fungicide applications at the 3-4 and 5-7 leaf stage were more effective than starting at the 8-12 leaf stage.

Research conducted in the Holland Marsh has shown onion cultivars have varying degrees of susceptibility to Stemphylium leaf blight, however all onion cultivars are susceptible. Other cultural management strategies include limiting the leaf wetness period by irrigating in the early morning and allowing the crop to dry out as soon as possible to avoid prolonged periods of leaf wetness. Always remove or bury cull piles and bury leaf debris from the harvested crop as soon as possible. As with any other foliar disease of onion, it is beneficial to rotate with non-host crops for a minimum of three years. While this may not be practical in muck growing regions with a high density of onion fields, such as the Holland Marsh, longer crop rotations can help in reducing spore load.

Stemphylium leaf blight continues to be a challenging disease to control for onion growers. Disease forecasting shows promise for better timed

## Vegetable Crop Protection Guide 2021 now available

Publication 838 – Vegetable Crop Protection Guide is now available. A print copy can be ordered from ServiceOntario or download a PDF copy. Link here: <https://bit.ly/33sH0Bw>

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fungicide applications, but more research is needed and is on-going. Continue to use all cultural methods to reduce disease severity and follow resistance management guidelines when using fungicides. On-going research into fungicide resistance will allow for better recommendations in future years. Follow ONVegetables.com for up-to-date information about Stemphylium leaf blight of onions and other vegetable-related news.

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*Katie Goldenbar is a pathologist-horticulture and Travis Cranmer is a vegetable crop specialist with OMAFRA.*

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## GREENHOUSE GROWER

## Greenhouse fruit and vegetable production tops \$1.8 billion

Statistics Canada has released its report on the Canadian greenhouse sector in 2020, noting that sales in greenhouse-grown fruits and vegetables increased for the eighth consecutive year to \$1.8 billion. Ontario accounted for two-thirds of total sales, with British Columbia (17.9%), Quebec (8.7%) and Alberta (6.5%) accounting for the other third.

Since 2015, the capacity to produce in protected environments has increased by 23.9 per cent to 4,470 acres (1,809 hectares) in 2020.

Tomato (+12.1%), cucumber (+9.4%) and pepper (+7.3%) sales were all up sharply from a year earlier, accounting for the majority (92.5%) of greenhouse vegetables and fruit sold in 2020. Greenhouse operations supply more than domestic markets; they are increasingly supplying export markets as well.

“Overall, Canadian exports to the United States in 2020 were 349.5 million kg in the commodities I’ve tracked, worth just under \$1.4 billion,” confirms Glen Snoek, marketing and economic policy, Ontario Greenhouse Vegetable Growers.

“Ontario alone exports over \$1.1 billion in greenhouse produce.”

Alberta has become an emerging player in greenhouse fruit and vegetable plant production over the past five years. Centered in the Medicine Hat area, 2020 greenhouse fruit and vegetable sales in the province rose by almost one-quarter (+23.3%) to \$119 million. Cucumbers (\$54.5 million), tomatoes (\$29.9 million) and lettuce (\$26.3 million) were the top sellers.

A potential labour shortage was one of the most pressing concerns facing the horticulture sector in 2020. Many greenhouses had to contend with COVID-19 outbreaks among employees, while travel restrictions limited the availability of foreign workers.

The agriculture sector depends on temporary foreign workers. In 2018, for example, 54,734 temporary foreign workers were employed in the agriculture sector, with one-third working at greenhouses.

Greenhouse operating expenses rose 7.5 per cent to \$2.9 billion in 2020, which is 22.9 per cent above the 10-year average.



Average greenhouse costs grew 6.2 per cent to \$110.7 per square metre.

Other operating expenses (+10.6%), electricity (+10.2%), other crop expenses (+8.5%) and payroll (+7.5%) rose at the fastest pace in 2020. The replacement of seasonal workers with permanent employees may have contributed to the increase in payroll expenses, which rose 6.8 per cent to \$25,856 per employee.

Nationally, greenhouses spent 0.9% less on natural gas, at \$191.3 million. In Ontario, natural gas prices were the lowest in five years.

For the entire report, link here: <https://bit.ly/3y9W3OL>

Source: *Statistics Canada April 26, 2021 report*

## Quebec’s goal is to double greenhouse acres by 2025

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Quebec’s government plans to increase greenhouse production volume between 2020 and 2025, propelled by food security concerns during the pandemic. These plans were recently a focus at a webinar organized by Zone Agtech, an accelerator for small and medium-sized agtech enterprises. Zone Agtech is located near Montreal, Quebec.

Dr. Martine Dorais, researcher and professor at Laval University, discussed the challenges for the sector, specifically achieving balance between productivity and sustainability. She explains that sustainability can be improved through use of renewable energy, heat recovery, innovative glazing materials and transformation of organic waste.

The reliance on foreign workers, especially during the pandemic, has required quarantine upon arrival and social distancing measures. With the provincial government having committed to doubling the number of greenhouses in Quebec, the sector’s labour requirements will likely increase in coming years and will create demand for trained growers and researchers.

Additional challenges include: developing phytosanitary strategies to responsibly manage pests and diseases, coordinating research efforts and grower eligibility for subsidized electricity. Many of these challenges are being addressed through innovative technologies including automation and artificial intelligence, advanced artificial lighting strategies and the use of biostimulants.

Quebec’s ministry of

agriculture (MAPAQ) has published its strategy to double volume of greenhouse fruits and vegetables by 2025, while shifting towards renewable energy sources. In 2020-2021, MAPAQ announced multiple programs to support greenhouse development in Quebec. The “Initiative ministérielle pour le développement des serres et des grands tunnels” was developed to support smaller operations in building greenhouses and tunnels and modernizing equipment. Similarly, the “Programme de soutien au développement des entreprises serricoles” provides up to \$600,000 to medium-sized operations for expansion and modernization. MAPAQ also developed a support program for major projects, providing \$125,000-\$3,000,000 in financial support.

MAPAQ also announced plans to increase access to tri-phased electricity, to develop a research program focused on greenhouse production and an open call to propose technological solutions to greenhouse challenges (which closed May 11).

The webinar also hosted multiple agtech companies and was sponsored by Sobeys. Participating companies included Savoura, Industries Harnois, Sollum Technologies, Gibio, Messis and EcoTech, among others.

For more information: MAPAQ programs <https://www.quebec.ca/nouvelles/actualites/details/croissance-serres/> and Zone Agtech at [zoneagtech.ca/en/](http://zoneagtech.ca/en/)

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## CROP PROTECTION

# Canada clarifies regulations for new breeding tools



**CHRIS DUYVELSHOFF**  
CROP PROTECTION ADVISOR  
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technologies' describes a number of tools used in biological sciences, it is most frequently used to describe CRISPR-Cas9.

This particular tool is faster, cheaper, more accurate, and more efficient than previously existing genome editing methods. It works by recognizing very specific sequences within the DNA and targeting changes very precisely within the genome. Given this specific targeting, research has demonstrated that unintended effects that occur in gene editing are relatively rare – similar to the rate of natural mutagenesis that occurs in nature.

### What are the new proposed regulations for Canada?

Canada's approach to the regulation of plant varieties has been on a product basis. That means the food derived from gene edited plants is what consumers will be exposed to, not the technology used to create these plants. As a result, it is the characteristics retained in the plant from which a food product is derived that determine product safety and whether or not the product will require a pre-market safety assessment.

In a recent proposal, Health Canada concludes that the use of gene editing technologies does not present any unique safety concerns compared to other methods of plant breeding. By consequence, foods derived from gene-edited plants are subject to the same considerations that determine the novelty status of all products of plant breeding. In essence, they will be treated no differently than any other method of plant variety development.

For a plant variety to require a regulatory assessment prior to commercialization, it must be considered to be novel. Novel plants differ from their non-novel counterparts because they contain one or more of the following changes: significantly altered nutritional profile or bioavailability of nutrients, increased expression of a known allergen or toxin relevant to human health, cause a new part of the plant to become available as food, or contain DNA not previously found in that species.

In the case of gene editing which doesn't change the

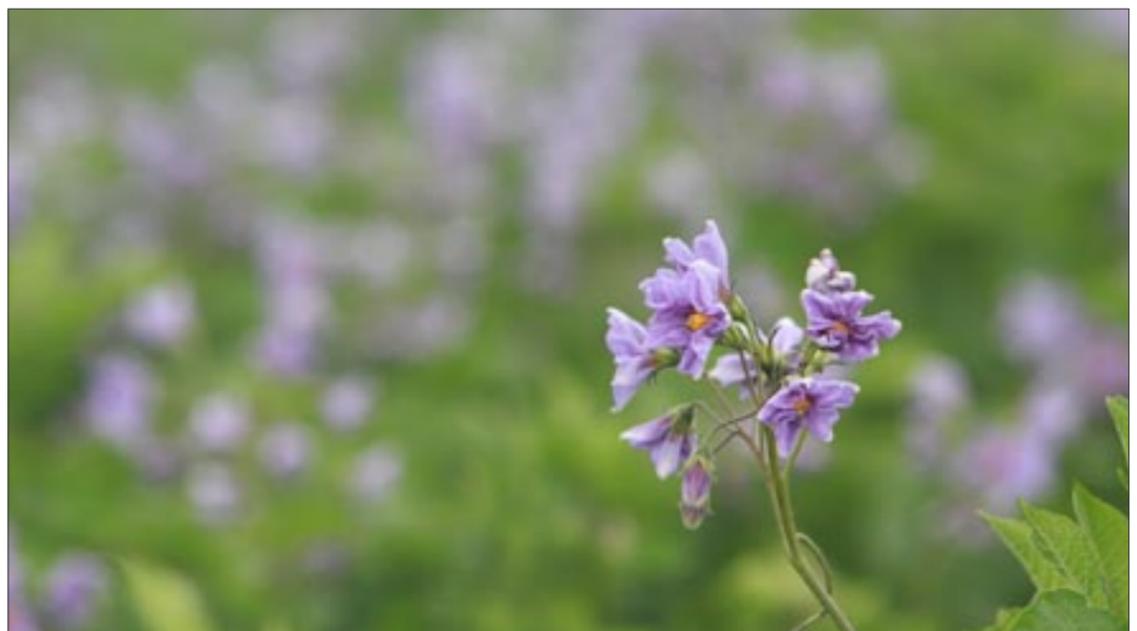
There have been tremendous developments in the tools available for use in plant breeding over the past decade. Health Canada and the Canadian Food Inspection Agency have consequently recognized the need for updated guidance to federal regulations regarding plant breeding and the introduction of new plant varieties. In particular, the rapid evolution of new biological tools around gene editing technologies promoted the need for clearer guidance.

### What is gene editing?

You've probably heard the term by now, but what does gene editing really mean? Genome editing (commonly shortened to gene editing) is a group of technologies that give scientists the ability to make targeted changes to DNA of plants, animals, or other organisms.

These tools can be used to generate modifications to the genome of living organisms by adding, removing, or altering genetic sequences at precise locations. Gene editing can accomplish the same objectives as conventional breeding methods such as plant crossing and hybridization. These tools can be used to speed up breeding programs to introduce new plants with improved traits for yield, quality, disease resistance, drought tolerance etc.

Gene editing differs from transgenic technology as it is most commonly used to modify genetic material within the existing genome of the plant – not introducing any new DNA from a different species. While the term 'gene editing



Tomatoes and potatoes could be some of the most common gene-edited crops to be commercialized in the next decade. Photos by Glenn Lowson.

nutritional or toxicological profile or introduce foreign DNA into the plant, it will not require regulatory approval. For example, if it looks like an apple, tastes like an apple, contains only apple DNA, and has the same composition of an apple – it's like other apples and will be considered non-novel, regardless if it was developed partially by gene editing or other conventional breeding strategies.

### Will gene-edited varieties be identified?

Disclosing the breeding methods of non-novel plant varieties is encouraged by Health Canada. A voluntary initiative will be established to include gene-edited plants developed for food use that are not novel foods. Health Canada will publish this information online for public access. The goal of this initiative is to provide Canadians with a clearer understanding of the

gene-edited products in the Canadian market.

Similar to the list of novel foods, it is expected that Health Canada would also include information about the safety status concerning gene-edited products and provide responses to help respond to common questions about these technologies.

### What this means for growers?

Gene-editing technologies are an exciting innovation to help accelerate the development of new plant varieties with improved traits. It is encouraging that Health Canada has proposed to maintain the science-based approach to regulation that focuses on the end product. This will ensure that Canadian growers will have access to the most competitive new varieties to meet the needs of the consumer, producer, and the environment.

How far away are gene-edited

varieties? In May 2021, Dutch vegetable seed breeder Bejo announced a non-exclusive agreement with Corteva Agriscience and the Broad Institute of MIT and Harvard to access gene editing technology for its research programs. They can now deploy this technology in a wide variety of vegetable seeds, including brassicas, onions, carrots and other crops. No doubt most seed developers will also be watching these technologies closely.

In a recent analysis by Corteva Agriscience of the number of publications on gene editing by crop, tomato ranked second overall only to rice with the most scientific publications in the literature. Potato and citrus were also in the top ten. Surely, gene-edited varieties of many horticultural crops will be here within the decade.

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## BioProtection portal launched in Canada

An online bioprotection resource has now been launched in English and French by a global group called CABI. The portal helps growers and pest management advisors identify, source, and correctly apply biocontrol and biopesticide products for their specific crop-pest problems.

The CABI Bioprotection Portal was officially launched online. The event, attended by more than 130 participants, included presentations from the portal's partner representatives, Dr. Gina M Swart of Syngenta Crop Protection AG, Brian Spencer from Applied Bio-nomics Ltd and Rachel Hagel of TerraLink.

Users of the CABI BioProtection Portal enter their country and crop-pest query in the system and generate key information on biocontrol and

biopesticide products that are authorised by national regulators for that specific search. Information is sourced directly from national governments' list of registered pesticides and from partner biocontrol manufacturers.

The innovative tool has been made available in collaboration with its network of partner biocontrol manufacturers: Applied Bio-nomics, TerraLink, Biobest, e-nema, Idai Nature, Koppert Biological Systems, Oro Agri and Syngenta.

Find out more information about the CABI BioProtection Portal at <https://bioprotectionportal.com/>

Source: CABI May 4, 2021 news release



## Special review decision released on pymetrozine

The Pest Management Regulatory Agency (PMRA) was prompted to make a special review of pymetrozine based on a cancellation of the active ingredient in Norway. On May 6, 2021, PMRA cancelled all outdoor uses, with greenhouse vegetable use to remain with new mitigation measures.

Pymetrozine is an insecticide used for the control of aphids in leafy vegetables (Crop Group 4), potatoes, highbush blueberries, tobacco, Rhodiola rosea, outdoor

ornamentals, greenhouse vegetables (pepper, tomato, cucumber and eggplant) and to control Balsam twig aphid on Christmas trees. It is also registered for the control of aphids and the reduction of whiteflies on ornamental plants in greenhouses.

Greenhouse uses: The potential cancer risk of pymetrozine (occupational) is considered to be acceptable with the following risk mitigation measures:

- PPE requirement of a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair.
- For greenhouse vegetables: To improve clarity, a maximum spray volume of 2000 L/ha is required. For the entire PMRA decision, link here: <https://bit.ly/3tkbj7S>

Source: Pest Management Regulatory Agency May 6, 2021 news release



## Vayego insecticide MRLs set in U.S.

The Crop Science division of Bayer has announced that Maximum Residue Limits (MRLs) for vayego insecticide have been established in the United States. The published MRLs are harmonized with those in Canada, allowing for seamless export of crops treated with vayego.

With this approval, potato, fruit and vegetable growers are now equipped with an excellent knockdown tool for key insect

pests.

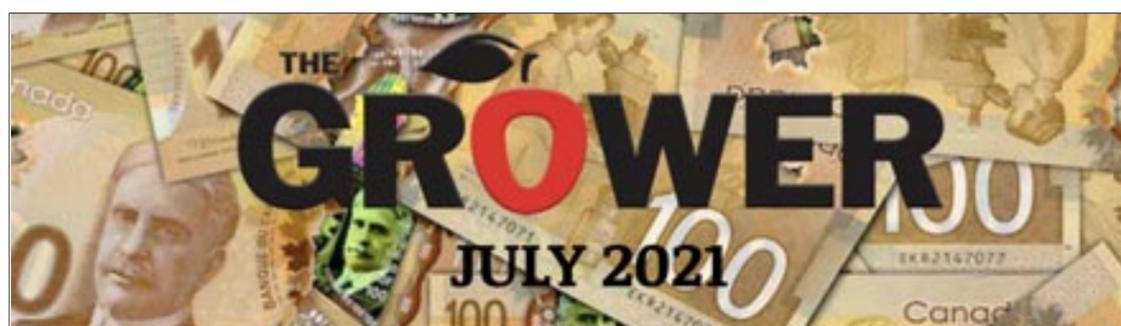
A second generation Group 28 diamide, vayego offers excellent control of lepidopteran pests in potatoes, tree fruit and vegetables, with low risk to beneficial insects when used according to the product label.

"With excellent residual control of key insect pests using low use rates, we are excited about providing farmers with vayego," says Kate Hyatt, crop & campaign manager – fruits &

vegetables at Bayer CropScience Inc. "With this news, farmers have freedom to operate and include vayego as part of an integrated pest management program."

For more information, talk to a local retailer or visit: <https://bit.ly/3ftN6ae>

Source: Bayer CropScience May 18, 2021 news release



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# Optimize Fruit Bulking with “Science Driven Nutrition”™



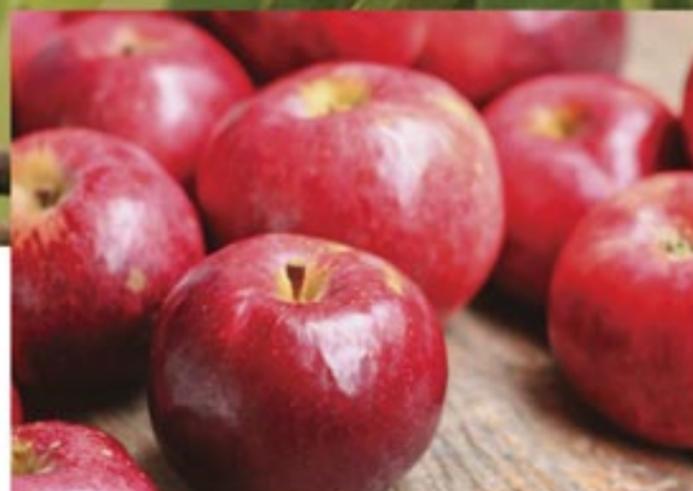
Growers have four main windows of opportunity to maximize their harvest as the apple crop's nutritional needs change through the season. Apple bulking, when fruit cells expand and the apple increases in size and weight, is an important opportunity to impact fruit development. Growers who use Science-Driven Nutrition™ to better understand their apple crop can support optimal growth and an enhanced marketable yield.

A proper nutrition plan ensures cohesiveness throughout the growing season. Bulking is the period of time when growers must focus on facilitating the production and movement of sugars into the cell structures. During cell division, the crop timing prior to the fruit bulking window, growers increased calcium applications to support fruit cell development and fruit firmness. When this opportunity to introduce calcium into the fruit ends four-to-six weeks post petal fall, maintenance applications using products like Agro-K's **Vigor Cal™** or **Clean Calcium**, are required to support tree growth and fruit firmness.

In addition to supplemental calcium, the apple tree requires an increased amount of energy to support the rapid leaf expansion and shoot growth that occurs at this time. Agro-K's **AgroBest 9-24-3** is an excellent source of phosphorous, which is a key nutrient behind the energy driving healthy cell development. Zinc assists with the leaf and vascular tissue development on the new growth, while magnesium, manganese, sulfur and iron synergize to maximize chlorophyll production and photosynthesis. Agro-K's **Zinc Plus +4** is a great example of a foliar product containing multiple micro nutrients designed to support leaf development and function during fruit bulking.

Potassium, which helps to move sugars throughout the plant and regulates plant moisture through the opening and closing of the stomata, is one of the most important nutrients during this time. The apple crop's potassium needs increase exponentially during the summer months. Fruit color, weight and uniform maturity at harvest all hinge on maintaining proper potassium levels during cell bulking with products like Agro-K's **KDL** and **Clean Potassium**. Excessive nitrogen, an inhibitor to fruit color, must also be avoided during this crop window.

**Science-Driven Nutrition™**



Science-Driven Nutrition™ was developed to help growers manage the apple's diverse and complex nutritional needs by following the **Five Rs**: The Right nutrient applied at the Right time in the Right form in the Right mix targeting the Right location in the plant. This approach maximizes effectiveness and minimizes product waste.

During apple bulking, Agro-K's soft foliar products ensure producers don't inadvertently create fruit lenticel cell damage, a problem that inevitably worsens over time. Agro-K's **Vigor** and **Dextro-Lac** product lines use a proprietary biological finishing technique that safely improves crop performance by enhancing nutrient uptake and utilization. Using soil testing, sap analysis, fruit sampling and other tools, growers determine which products will be most helpful for their unique orchard.

*For more information on using Science-Driven Nutrition™ to help your crop flourish throughout the season, visit [www.agro-k.com](http://www.agro-k.com).*

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