

# THE GROWER

OCTOBER 2018

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## GIVING THANKS

# Hand it to 30,000+ seasonal workers who bring produce to market



The Seasonal Agricultural Worker Program has brought workers from Mexico and the Caribbean to Canada for 52 years. One of those success stories is Jamaican Stedley Stephenson. He's finishing his 38th season, this year picking apples in one of the remaining conventional blocks at the farm of John Ardiel, Clarksburg, Ontario. Thanks to 30,000 workers like him, growers are able to bring hand-harvested produce to market. Photo by Glenn Lowson.

### KAREN DAVIDSON

The story of Stedley starts in Jamaica. The Commonwealth country boasts tropical vistas, with his family seat at Windsor Castle in Carron Hall. As the crow flies, it's about 35 kilometres northwest of the capital of Kingston.

Stedley Stephenson inherited a stately name and a regal-sounding birthplace, but little in the way of practical comforts or education. He grew up tending bananas, yams, potatoes, tomatoes and cocoa. When his local parliamentarian offered him the opportunity to work in Canada through the Seasonal Agricultural Worker Program (SAWP), he said, "Yes, mon."

He came to Canada in 1981 to pick tomatoes at a Picton, Ontario farm. Since those early days, he transferred to the apple orchards of Georgian Bay. For the intervening years, he's returned

faithfully to the farm of John Ardiel, Clarksburg.

"Stedley was the first full-season worker to join us," explains Ardiel. "There were no cell phones or email in those days. His wife Merle would send a letter which we would read to him. Then on his behalf, we would write a letter back to her and his five children. My wife Lynda taught him how to print his name."

After all these years, Stedley Stephenson has earned respect among his fellow Jamaican workers who refer to him as "papa." He maintains the order of the bunkhouse – a term which he rejects in favour of "home."

He expresses his emotions about his family simply: "I wanted to work to make them happy."

This story is repeated countless times as thousands of workers from the Caribbean and Mexico flock to Canada

under the auspices of the Seasonal Agricultural Worker Program. In Ontario alone, there were between 20,000 and 21,000 workers for the 2018 season and when the figures are tallied for Canada, the total is 30,000 plus. The Foreign Agricultural Resource Management Services (FARMS) administers the program in Ontario, booking flights and advising on paperwork.

For 52 years, the program has evolved to reflect the needs of both workers and farm employers. Workers receive the prevailing minimum wage – or more, depending on responsibilities – of the respective province.

"We wouldn't be where we are with 300 acres of apples, without these workers," says Ardiel. "There would be no horticultural industry in Ontario."

As much as technology is advancing in horticulture, the basic need for hand-pruning and hand-harvesting remains.

Half of the Ardiel orchard is high-density with a few acres of conventional trees where ladders are still required.

The public perception of foreign workers is not universally favourable with the odd exceptions of sub-standard housing and onerous treatment receiving media exposure. The reporting often includes the pejorative term: migrants. This is not an accurate reflection of what's happening on most Canadian farms because the word conjures up pictures of nomadic workers drifting from place to place to do seasonal work. Instead, these workers are carefully documented by government authorities, many by biometrics, and reside in employer-provided housing which must pass government inspections.

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Grape forecast PG 6

New equipment & technology PG 14

Meet Chris Duyvelshoff PG 22

## AT PRESS TIME...

### PMRA agrees to restart evaluation of mancozeb

The Ontario Fruit and Vegetable Growers' Association (OFVGA) in concert with the Canadian Horticultural Council have successfully argued for a change in PMRA's decision to cancel uses of mancozeb.

In June 2018, the Pest Management Regulatory Agency (PMRA) announced that commonly used fungicides – mancozeb and metiram – will be eliminated in most horticultural crops. According to that decision, all uses of products containing mancozeb (Manzate, Penncozeb, Dithane, Ridomil Gold MZ and Gavel) and metiram (Polyram) were to be cancelled with the exception of foliar applications to potatoes.

On August 15, the PMRA agreed with industry to restart the review process for mancozeb only. PMRA agreed that the consultation document did not meet transparency requirements under the Pest Control Products Act. The decision for metiram could not be reversed for legal reasons. As of June 2020, metiram (Polyram) cannot be used on any crop except potatoes and the label will reflect that change.

"This is the best outcome we could hope for given the circumstances," says Charles Stevens, chair of the crop protection section, OFVGA. "PMRA has verbally communicated that all current final decisions and proposals

regarding MRLs will be removed and a new pre-proposal for consultation for mancozeb will be posted. At this time we are not aware of the timeline for these actions to be taken. All current uses remain in place for these products until otherwise communicated."

For background, go to: "PMRA plans to eliminate mancozeb and metiram fungicides" in the August 2018 issue of The Grower or go online to: <http://thegrower.org/news/updat-e-mancozeb-and-metiram>

### Review of biometrics process



The science of biometrics allows for the authentication of each person's identity with either an iris scan or a handprint. As security tightens worldwide, biometrics are increasingly used as people cross borders.

As part of Canada's enhancement of border security, biometrics are now required for those in the Seasonal Agricultural Worker Program. Human Resources and Skills Development Canada informed farm employers this past

summer how the biometrics program would be implemented in the months to come regarding various countries. Potential workers must present themselves in person and pay a fee.

Biometrics was partially implemented in Mexico in 2018. Once scans are done, they are valid for 10 years. Effective December 31, 2018, all Labour Market Impact Assessments (LMIA) received after that date will require workers to have a biometric scan. Before that date, biometrics scans are not required, however, the worker must have a visa application submitted and processed to Immigration,

Refugees and Citizenship Canada.

In Jamaica, the biometrics process has been in effect for eight years. The fee is \$85 Canadian.

In Barbados, Trinidad and Tobago, and eastern Caribbean islands, workers will be required to submit biometric scans. Only Trinidad and Jamaica currently have biometric scan facilities, therefore workers from other islands will need to travel there to secure the proper documentation.

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## NEWSMAKERS

Congratulations to **Chris Van de Laar**, named Grape King 2018 by the Grape Growers of Ontario and Farm Credit Canada. The Niagara-on-the-Lake grower was chosen by his peers based on his vineyard management and industry knowledge. He follows in the footsteps of his father, **Peter**, who won the same distinction in 1985. His 110 acres of grapes go to Arterra Wines Canada's Inniskillin and Jackson Triggs brands.



Chris Van de Laar

The federal Conservative party has reassigned Albertan **John Barlow**, MP (Foothills) from the role of associate shadow minister of agriculture to the ministry of employment, workforce development and labour. He is returning to a role he held for a year after the 2015 election. His new role will also intersect with agriculture since access to labour and talent of all dimensions is one of the top current issues. Quebecer **Luc Berthold**, MP (Megantic-L'Érable), is shadow minister for agriculture and agri-food.

Brothers **Alex** and **Jordan McKay**, Port Perry, have been honoured as 2018 Ontario Outstanding Young Farmers at Canada's Outdoor Farm Show. They operate Willowtree Farm, a 650-acre mixed farm which includes significant acreage of berries and vegetables at Port Perry. Best wishes for the national competition to be held in Winnipeg November 27 to December 2.



Alex McKay & Jordan McKay

Condolences to the family of **Alan Grant Stuart**, 79, who passed unexpectedly on August 18, 2018. He was a former executive director of the Potato Growers of Alberta.

The Ontario Produce Marketing Association has expanded its board of directors from 13 to 17 to better represent the industry. **Joe Dutchny**, Niagara Orchard & Vineyard Corp is the 2018-19 chair. He is joined by **Derrick Rayner**, Earth Fresh Foods, past chair and **Sarah Taylor**, Gambles Produce Ltd., vice-chair.

Directors include:  
**Steve Bamford**, Fresh Advancements Inc.;  
**Steve Crawford**, Gordon Food Service;  
**Steve Dimen**, Ippolito Fruit & Produce;  
**Adam Donikan**, Sobeys Ontario;  
**Houman Madani**, Metro Ontario Inc.;  
**Greg Maffey**, HelloFresh;  
**Sarah Marshall**, Ontario Tender Fruit Growers;  
**Steve Moffat**, North American Produce Buyers;  
**Kimberly Roberts**, Walmart Canada;  
**Julian Serraino**, Fresh Taste;  
**Frank Spanuolo**, Loblaw Inc.;  
**Chris Streef**, Streef Produce Ltd.;  
**Jason Verkaik**, Carron Farms;  
**Charles Waud**, WaudWare Incorporated

Polymer Logistics has hired **Eric Biddiscombe** for the role of country manager, Canada. The 33-year veteran of Loblaw Companies Ltd and more recently, Chill Fresh Produce, will be tasked with all aspects of Polymer Logistics' Canadian business, including retailer and grower development, service, operations and the full range of reusable packaging and merchandising systems.

## COVER STORY

# Hand it to seasonal workers

“

We wouldn't be where we are with 300 acres of apples, without these workers. There would be no horticultural industry in Ontario.

~ JOHN ARDIEL

”

Continued from page 1

FARMS president Ken Forth is perplexed that the media ignores the countless examples of how these workers have educated their children to become electrical engineers, accountants and teachers in their home countries.

“Canadians should be thanking these workers for the jobs they do in bringing safe food to the table,” says Ken Forth. “Without them, we wouldn't have the food security we enjoy today. What also goes unreported is that for every seasonal worker, there are two Canadian jobs created in agriculture.”

To tell this background story, the Canadian Horticultural Council has commissioned videographer company HyperActive to tell the stories of agricultural workers across the country. For example, at JC Fresh Farms, Kingsville, Ontario, farm office manager Natalie Capussini has organized on-site yoga classes right in the greenhouse. She understands the strain that repetitive work can have on the body, so regular stretching of muscles is important.

In another instance, JPI Acres, Leamington, Ontario has fielded a worker team to join the Essex County Senior Baseball league. Issak Giesbrecht, one of the managers who grew up in Mexico, understood the passion of his countrymen for the sport. His instincts were well placed. The Leamington Greenhouse team played in the finals this past summer.

The town of Leamington, home to many workers in the greenhouse industry, is motivated to recognize those who contribute about \$15 million to the local economy through personal shopping. Because many of the workers ride bicycles to get around the community, cycling lanes are available where space permits and a trail network is underway to make cycling safer.

The same story is repeated in British Columbia's Okanagan Valley where 1,700 Caribbean and 2,500 Mexican workers help harvest cherries, apples

and grapes. Not only do they generate more local business, but they add an international flavour. Many banks seek to have a Spanish-speaking staff member on hand to serve the many new clients. Retail food stores have expanded their offerings to cater to the newcomers and local tortilla businesses have started up.

“The program brings new diversity to our valley, and in time, I hope we see an increasing cultural influence and interaction from our workers,” says Glen Lucas, general manager, BC Fruit Growers' Association. “One thing that would help is a pathway to Canadian citizenship for those workers who are interested in staying – those waves of immigration are essential to the sustainability of our agriculture sector. The workers who are motivated to develop their horticultural and management skills will eventually become the new orchardists and vineyard operators of the future. I recall one of the Caribbean workers being asked why his business in his homeland was so successful. He replied: ‘Because I know how to work like a Canadian.’”

For some reason, these stories of success don't make the headlines, perhaps because they are so commonplace. There are gains for all, as Stedley Stephenson would attest after his 38th season.

He hasn't tipped his hand as to when he plans to retire. As he contemplates the scenic vista of Georgian Bay's Blue Mountain with a cup of java at 7 am, he remembers Jamaica's Blue Mountains. Either way, he's at home.

**For a “Behind The Scenes” podcast with Ken Forth visit [www.thegrower.org/podcasts](http://www.thegrower.org/podcasts)**



The warm relationship between farm employer John Ardiel and Stedley Stephenson is obvious as they recall stories over the years. Back in 1982, Steadley Stephenson wore a white top hat to John and Lynda Ardiel's wedding. Today, he wraps the Jamaican flag around his shoulders.



The Canadian Horticultural Council has hired a videography company to tell the stories of seasonal workers such as Mexican Fidel Perez Sanchez at Sun Tech's tomato greenhouse in Manotick, Ontario.

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## CROSS COUNTRY DIGEST

## BRITISH COLUMBIA

## Japan's market is opening up to more BC cherries

The highly prized Asian market of Japan is opening its market to more British Columbia fresh cherries. Federal ag minister Lawrence MacAulay and MP for Kelowna-Lake Country, Stephen Fuhr, announced improved market access on August 24.

"The BC Cherry Association is extremely pleased that efforts from government and industry have secured access to the Japanese market for Canadian cherries," said Suhkpaul Bal, president, BC Cherry Association. "Our growers and industry partners look forward to building long-lasting relationships with Japanese customers and cannot wait to see cherries branded with the maple leaf in stores across

Japan."

In 2017, Japan imported more than \$62.7 million (CAD) of fresh cherries from around the world. Canadian growers estimate the potential to sell \$8 million in this market.

Once the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) enters into force, Canadian agriculture and agri-food exports will benefit from preferential access to key Asian markets, including Japan. Through the CPTPP, Japan's tariffs of 8.5 per cent on fresh cherries will be eliminated over five years from entry into force.

Japan was Canada's third-largest market for agri-food and seafood with exports of \$4.5 billion in 2017.



Federal ag minister Lawrence MacAulay is flanked by Laura and David Geen, president of Jealous Fruits. Photo by Myrna Stark-Leader.

## BRITISH COLUMBIA

## Blueberry growers defend biodiversity

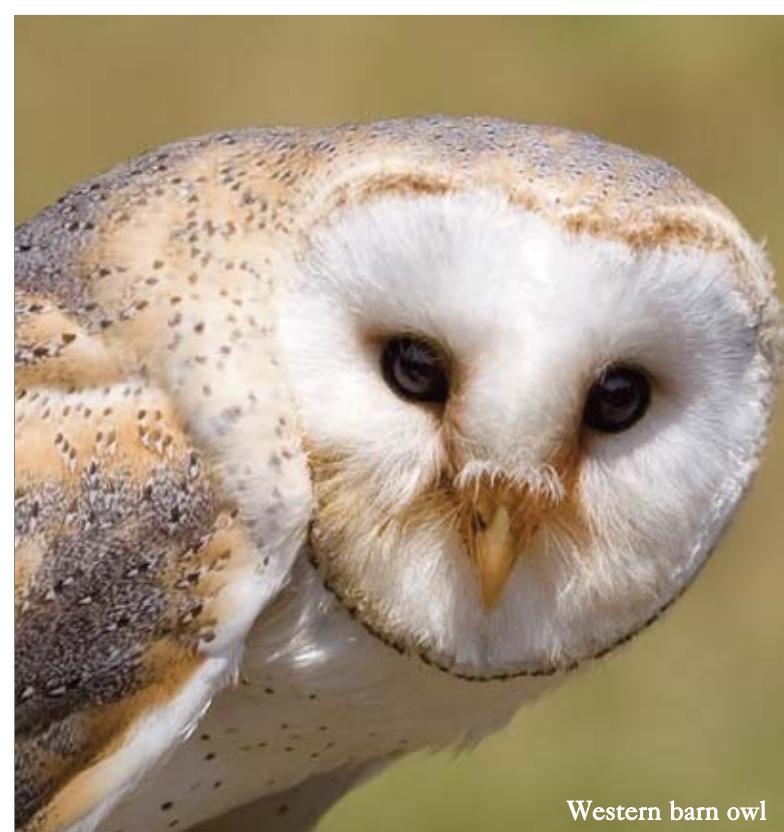
Indigenous to the Fraser Valley, western barn owls can be a berry grower's best friend, patrolling farm fields at night for voles and other unwelcome visitors. By weight, these owls consume more rodents than most other economically valuable wildlife animals for agriculture.

In recent years, however, these predatory powerhouses have faced mounting pressures such as habitat loss and secondary poisoning from consuming pests with rodenticide in their systems.

In an effort to lift the owls from the threatened species list, the Fraser Basin Council

Society teamed with local Abbotsford growers to explore an integrated pest management approach that would reduce rodenticide use and provide habitat and nesting sites to host western barn owls.

According to project manager Christina Toth, part of the problem for farmers was a lack



Western barn owl

of clarity on rodenticide application levels.

"By educating producers on the correct and appropriate application to protect their crops, they can not only save time, money and labour, but help protect biodiversity in the Fraser Valley," Toth explains, adding that the benefits extend beyond owls to other predatory raptors and mammals potentially affected by rodenticide use.

Factsheets in both English and Punjabi are now available to growers, offering best practices for rodenticide use, as well as tips on how to assess vole presence and damage to crops and how to develop more effective, economical and environmentally sustainable IPM plans. So far, 11 blueberry farms have implemented best management practices for

rodenticide use and installed barn owl nest boxes to help control voles.

Toth sees the project as a ground-breaking initiative, both in terms of farm management and environmental stewardship.

"We've had amazing response from both conventional and organic growers eager for information that will help them enhance the relationship between agriculture and the environment," she says.

Given that British Columbia is one of the largest highbush blueberry-growing regions in the world, the project was especially timely.

*Originally published in Investment Agriculture Foundation of BC's Summer 2018 edition of Growing Today. For more information visit iafbc.ca.*

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**CROSS COUNTRY DIGEST****QUEBEC**

## Courchesne Larose celebrates centenary in style

The fruit and vegetable distributor, founded in Hochelaga-Maisonneuve in 1918, is planning 100 days of festivities, including a Guinness World Record attempt.

On October 5, members of the public are invited to the Esplanade Sun Life Financial outside Olympic Stadium for the Grande Coupe, a festive family event, where an enormous fruit salad weighing more than 20,000 pounds will be concocted. It will be a spirited attempt to beat the previous record set in Vienna, Austria, in 2014. The event will be held as part of First Fridays, the largest gathering of food

trucks in Canada.

On October 17, a tribute will be paid to the late Louis-Charles Routhier, former owner of Courchesne Larose, whose outstanding commitment to society will be recognized by the community organization Je Passe Partout. This organization is working to reduce the school dropout rate in the borough of Hochelaga-Maisonneuve.

A century of success doesn't happen by itself, so it was important that these celebrations include all those whose unfailing support and co-operation have played a role in our accomplishments during that time -- the members of our



**Tony D'Anello, vice-president of sales and purchasing (left) and Dario Palmieri, director of sales and purchasing inspect California grapes.**

outstanding team, along with our loyal partners," explains Alain Routhier, president, Courchesne Larose. "If they were still with us, our father and grandfather would have good reason to be proud."

A century later, the family-owned Courchesne

Larose Group employs more than 500 people. The company's third generation of leaders is now well established, and it is grooming the next generation to take over one day in the future. Courchesne Larose now distributes fresh, quality fruits and vegetables to

every corner of Québec, Ontario and Atlantic Canada.

*Source: Courchesne Larose September 11, 2018 news release*

**NOVA SCOTIA**

## Scotian Gold upgrades storage capacity

The federal government is giving Scotian Gold a \$900,000 interest-free loan to expand its controlled atmosphere storage rooms for Honeycrisp apples.

Kings-Hants MP Scott Brison made the announcement September 10 at the co-operative's plant in Coldbrook, Kings County.

The additional space — about 15,000 sq. ft. more on top of Scotian Gold's current storage capacity of 150,000 sq. ft. — means it can hold an additional 100,000 bushels of Honeycrisps.

Scotian Gold president and

CEO David Parrish says the new system is improved and more energy-efficient.

"It has newer technology that is going to allow us to store the apples for an even longer period than we have in the past," Parrish said. "The whole concept is to have the best-quality piece of fruit you can put on the market."

Parrish said growers are planting more Honeycrisp orchards and the new space will help hold the increased volume while enabling Scotian Gold to ship fresh fruit longer.

"We currently run out in late spring, so this will allow us to continue on later into the season, and provide more work for our employees," he said, adding that the season will likely extend another 20 days.

**Photo right:** Kings-Hants MP Scott Brison is flanked by Scotian Gold Cooperative president and CEO David Parrish and local growers, Coldbrook, Nova Scotia.

*Source: Halifax Chronicle-Herald*

**PRINCE EDWARD ISLAND**

## Eyes on Lands Protection Act

The Prince Edward Island Potato Board is lobbying the provincial government to close loopholes in the Lands Protection Act as more cases emerge of irregularities in land sales to non-residents. Greg Donald, general manager of the board, cites statistics that show potato farms declining from 460 in 2007 to 186 in 2017. Potato acreage also fell in the last decade from 112,000 to 83,200.

Editorialists for the *Charlottetown Guardian* wrote in a September 13 issue: "Farmers are increasingly concerned about unethical land real estate practices. Often, sales of farmland are not being advertised on the Island, which prevent local farmers from increasing their land holdings. One farmer, who had been renting land, says that land was sold without his knowledge because it wasn't advertised. Advertisement of land sales, now a guideline, must become a regulation."

The editorial points out that

under the Lands Protection Act, non-residents of Prince Edward Island must have permission of cabinet in order to own more than five acres of land. The act also limits individuals to land holdings of 1,000 acres and corporations to 3,000 acres of land.

However, some real estate agents are getting around residency requirements. Greg Donald cites stories of residents buying land, then renting to a non-resident until that person meets the residency requirements, which are now just 12 months. Then they would sell them the land.

The editorial concludes: "P.E.I. desperately needs a land banking system which would allow retiring farmers to get a fair price for their land while allowing Island farmers to buy land at a cost they can afford."

*Source: Charlottetown Guardian September 13, 2018 editorial*

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## GRAPE PRODUCTION

## Lighter crop predicted for Ontario grapes



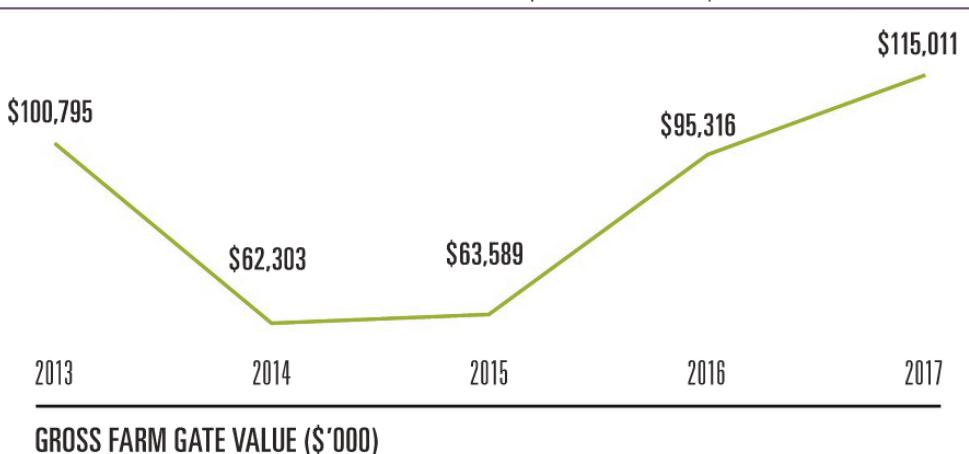
KAREN DAVIDSON

Last year's record \$115 million farmgate receipts for Ontario grapes won't be topped this year, however the hot, dry summer will result in concentrated flavours and quality. That's the topline for 487 members of the Grape Growers of Ontario (GGO), who just celebrated the Niagara Grape & Wine Festival from September 12-30.

"It will be a lighter crop," says Kevin Watson who contracts grapes to Jackson-Triggs and Inniskillin Wines. "Last year was a heavy crop. Then winter damage weakened buds for a slower start. Without irrigation, grape clusters will be smaller. Winemakers are not magicians. Good wine all starts in the vineyard."

### VALUE OF CROP PURCHASED

TABLE III — Farm Gate Value of Grapes Purchased by Processors



By the numbers, the 2017 grape crop was tallied at 87,567 tonnes (including juice grapes). This year's estimates are for 64,000 tonnes.

Grape growers are very optimistic moving forward.

"We have a lot of young growers entering the industry who get it on quality grapes," says Watson. "We have support from suppliers. We have support from soil and tissue analysis labs. We have support in the community. We have the tools to handle Mother Nature."

That optimism is borne out in the annual report of the Grape Growers of Ontario which tracks Ontario grapes in the Vintner's Quality Alliance (VGA) program. Over the last five years, those numbers have steadily increased from 29.27 per cent in 2013 to 33.43 per cent in 2017. It's a tough slog against international competitors, but a testament to improving quality of Ontario wine at consumer-friendly price points.

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## THE GROWER

## OFVGA ISSUES AND ACTIVITIES

## What we're working on for you

## GORDON STOCK

This column is to keep you informed about the key issues that OFVGA is currently tackling on behalf of growers.

## Crop Protection

OFVGA continues to monitor re-evaluation proposed and final decisions published by the Pest Management Regulatory Agency. A revised mancozeb proposal is expected soon. Other proposed decisions currently open for consultation include thiamethoxam and clothianidin. OFVGA will be providing submissions on those chemistries to support continued use.

## Labour

OFVGA representatives had a productive meeting with the Ontario Minister of Labour, Laurie Scott in September to express concerns around the existing Bill 148 and the impact of higher minimum wages, as well as scheduling and

emergency leave provisions.

OFVGA continues to monitor Seasonal Agricultural Worker Program integrity audits by Employment and Social Development Canada to ensure a respectful process. Any concerns farmers experience should be documented and farmers are encouraged to send the information to the OFVGA.

## Environment and Conservation

A meeting with the Ontario Minister of Environment, Conservation and Parks, Rod Phillips, has been set for October 2. Topics will include carbon pricing and the impact of environmental regulation on the competitiveness of the horticultural sector.

The Ontario Government has launched a consultation to solicit comments on the repeal of the cap and trade legislation, with comments due October 11. OFVGA will be submitting comments and growers are encouraged to do the same.

OFVGA continues to be engaged and involved with the Grow Ontario Together



Photo by Glenn Lowson

coalition of agricultural organizations working on phosphorus reduction. The group is currently reviewing its role and how to move forward in ways to influence phosphorus reduction in the Great Lakes on a long-term basis.

OFVGA continues to lobby to ensure that the Edible Horticulture Support Program is maintained and that the second payment will be completed next April 2019 as planned.

## Northern Fruit and Vegetable Program

OFVGA has received written confirmation that edible horticulture which is part of Self-Directed Risk Management will be included in any discussions related to the expanded Risk Management Program, which was committed to during the 2018 provincial election.

The OFVGA has delivered this program and has reached out to the Ontario Minister of Health and Northern Affairs, Christine Elliott, and the Ontario Minister of Energy, Northern Development and Mines, Greg Rickford, to make them aware of the program and ensure continued support from the government.

## Other key meetings attended or upcoming:

- Industry roundtable with Premier Doug Ford and Ag Minister Hardeman at the International Plowing Match
- Meeting with Ag Minister Ernie Hardeman
- Canadian Horticultural Council Fall Harvest meetings in November

For more information on any items, please contact Gordon Stock, senior policy and government relations advisor, at [gstock@ofvga.org](mailto:gstock@ofvga.org) or 519-763-6160, ext. 125. More detailed updates can also be found at [www.ofvga.org](http://www.ofvga.org).



# Dec. 4-6, 2018

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## CHAIR'S PERSPECTIVE

## Meeting the new government



**JAN VANDERHOUT**  
CHAIR, OFVGA

changes may be?

On September 6, the Ontario Fruit and Vegetable Growers' Association (OFVGA) met with our new Minister of Labour, Laurie Scott, to discuss the many labour issues facing Ontario's growers. I am happy to say that the meeting went very well and that our concerns were heard, and we also listened closely to the challenges and opportunities that the ministry faces.

Front and center on many growers' minds is the increase to the minimum wage on January 1st, 2018 from \$11.60 to \$14.00 and the impact that the increase is having on their bottom line. Minister Scott and her staff listened intently to our concern and our request to hold the rate at \$14 for as long as possible and when it is increased to have a measure of predictability to the schedule. We of course understand that a reduction is undoable politically, practically and economically. The only promise made was that the minimum

wage rate will not increase on January 1st, 2019 but through the whole discussion our concerns were heard and understood. We clearly laid out the issue we face competing with jurisdictions where the cost of production is so much lower that even the additional freight costs our competitors incur does not make Ontario's growers competitive in the local markets. Because labour is such a huge part of our input cost, a sharp increase has a traumatic effect on our cost of production. Many of Ontario's growers face uncertainty about their continued ability to keep producing healthy and safe food in this province. I was extremely happy to read in the *Financial Post* on Sept 14th that this government will keep the \$14 minimum wage.

Our OFVGA team also clearly laid out the other impactful parameters of Bill 148 especially with respect to scheduling, hours of work and overtime pay. The minister understood the difference in

agriculture on issues such as these. Basically, when the crops are ready for harvest the work must be done and when the weather turns against us work in the fields may come to a sudden halt.

I am grateful for the opportunity to meet with the Minister of Labour and to share the impact that labour legislation has on our sector and I look forward to future conversations about details as this government strives to make Ontario a great place to do business. OFVGA will support government on issues like labour whenever we can to find practical solutions and smart regulation.

It is my hope and expectation that this type of collaborative initiative will be common in the coming months as the Ontario Government establishes its place in Queen's Park. There have already been several conversations with Ag Minister Hardeman (OMAFRA) who attentively listens to the needs and concerns of the

agricultural sector. OFVGA intends to meet with other ministries as well to continue to establish ourselves as the voice of horticulture in Ontario and to assist government in understanding the needs of our important sector.

Through all these meetings we will support the government as they build a culture of support for Ontario farms and businesses and take away the enforcement mindset that seems to permeate the civil service. It really comes down to the age-old analogy of the carrot or the stick and I believe growers can thrive when they are supported in their compliance to regulation as opposed to being forced into compliance.

I am looking forward to the coming months when we collaborate with government to develop practical and workable solutions to the challenges that we face together as a province.

Ontarian's have been watching eagerly to see what life governed by the Progressive Conservative government will be like. We have seen controversy of buck-a-beer and Toronto Council questions as well as withdrawal from cap and trade. Aside from "a promise made a promise kept" what are the real changes going to be and how will those changes affect our farm businesses? More importantly, how can we as growers impact what these

## WEATHER VANE



Thanks to Twitter, we're able to share some of the best photography of fall including Hugh Simpson's tractor riding into the sunset and Henry of Pelham's Baco Noir grape harvest. Happy Thanksgiving!

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**THE GROWER**

## THE GROWER

## FOOD SAFETY

## Innovations underway at Ontario fruit growing co-operative

Ontario fruit growers are strengthening their food safety management system to ensure Canadian-grown fruit meets or exceeds the global food safety standards expected by major Canadian retailers and international customers.

Industry-leading food safety systems will help boost the shelf life of fruit crops such as peaches, nectarines, plums, pears, grapes, and apricots, enabling local growers to ship their produce greater distances and access new markets.

To help achieve this goal, the Vineland Growers' Co-operative will receive funding through the Canadian Agricultural Partnership and is collaborating with 17 Niagara fruit growers who will be implementing changes to cleaning and sanitation procedures in their pack houses.

"This investment will help grow their industry and build a strong and prosperous agriculture and agri-food sector," said Lawrence MacAulay, federal minister of agriculture and agri-food.

Vineland Growers' was founded in 1913 and is Ontario's oldest continually run co-operative, marketing stone fruit, grapes and pears on behalf of its members to customers across Canada. Approximately 70 per cent of Canada's stone fruit crop is marketed through the

co-op.

Through the project, the co-op will implement an innovative sanitation program that includes cleanliness initiatives, environmental monitoring, professional training, and achieving group food safety certification. An internal auditor will be trained to ensure growers are continually maintaining proper records, traceability and cleanliness practices.

"The objective of cleaning and sanitizing is to remove the nutrients that bacteria use to grow and to eliminate the bacteria that are present," explained Vineland Growers' president Mike Ecker, adding that a state-of-the-art adenosine triphosphate (ATP) bioluminescence monitoring system will be used to ensure sanitation efforts are thorough enough to avoid product contamination.

At Tregunno Fruit Farms Ltd., the first co-operative member to start implementing the new system, cleaning equipment and microbiology testers were installed in their pack house for the 2018 harvest season.

"We cleaned and sanitized every harvest container after every use," said Ryan Tregunno. "This is unique and we have been looking forward to getting this in place."

According to Ecker, cleaning is the

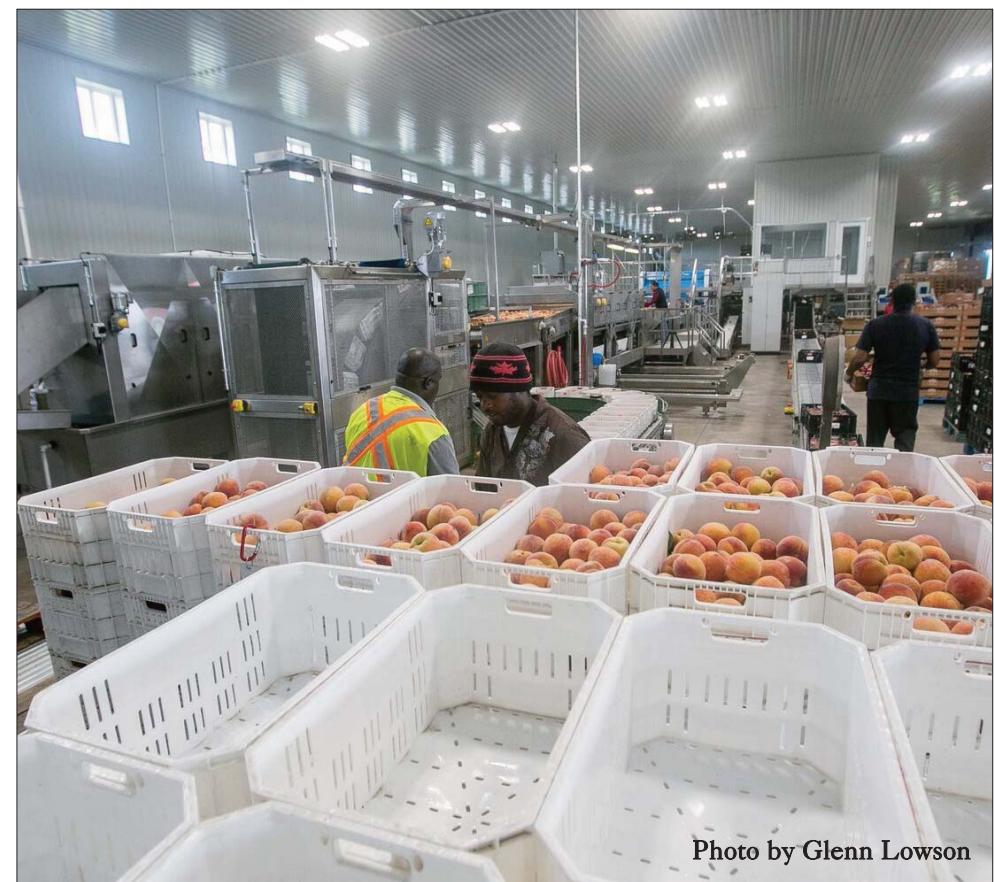


Photo by Glenn Lowson

most costly part of on-farm food safety, so for the co-operative to be able to access funding for the project helps make these improvements more accessible to its members.

"By implementing these initiatives as a collaboration through the Canadian Agricultural Partnership and achieving group food safety certification, we can make food safety resources affordable to all growers large and small and ensure that the fruit we produce is of the

highest quality when it reaches the customer," he added.

The Canadian Agricultural Partnership is a federal-provincial-territorial initiative. The Agricultural Adaptation Council assists with program delivery to organizations and collaborations in Ontario.

*Source: Agricultural Adaptation Council September 18, 2018 news release*

## INTERNATIONAL

## CHINA

### Drones for crop protection



Eagle Brother Co Ltd, a Chinese company based in Hubei province, is launching a platform for spraying crops with drones. Farmers will provide information on varieties and types of crops, the size of the farm and the necessary pesticides to be used. Drones will apply the sprays.

As recently as 2016, the company cooperated with the Massachusetts Institute of Technology's Artificial Intelligent Experts of Autostereoscopic 3D for UAV full automatic intelligent control technology. The company's founder, Li Caisheng, has been honoured as a leading entrepreneur.

Each drone can carry a payload of 10 to 30 kilograms of crop protection material. Systems have been created for group flying for large acreages.

## MEXICO

### A powerhouse in produce since NAFTA



Fruit and vegetable production in Mexico has doubled since the North American Free Trade Agreement (NAFTA) came into force. Since 1994, Mexico's exports have grown from 19 million tons of fruits and vegetables annually to 37 million tons last year in 2017.

Market value has increased from \$5.897 billion to \$11.295 billion. The country exports almost 28 per cent of its production. Mexico has also increased its exports to Canada, moving from eighth to second place, behind the U.S., as a food supplier.

Mexico mainly exports avocado, tomato, berries, mango, and lemon. Jalisco, Michoacan, Veracruz, Sinaloa, and Sonora states are the main producing entities.

*Source: FreshPlaza.com*

## UNITED STATES

### Award for recyclable packaging



In July 2018, the Organic Produce Summit in Monterey honoured A & A Organic Farms, Watsonville, California for its innovation in packaging. One company is picked each year for developing a product that has a transformative impact on the organic produce industry.

Their environmentally-friendly, recyclable packaging for strawberries, cherry tomatoes, raspberries, blackberries, and sugar snap peas was singled out for the Organic Innovations Showcase Award. The cardboard packaging is made with vegetable-based inks, food-grade adhesives, water-based coating, and without wax and affixed labels.

Andy Martin, president, A & A Organic Farms said, "The social media feedback from the consumer on this packaging has been incredible."

## ARGENTINA

### Success with bird-repelling lasers



Blueberry and grape growers in Argentina are testing to success with Agrilasers in decreasing crop loss to birds. Dutch company Bird Control Group has conducted feasibility studies that show a decrease of 70 to 90 per cent.

In one trial, Catena Zapata vineyards protected a 39-hectare field for three months without any bird damage. I

According to the company's website, birds sense the approaching laser as a physical object and fly away. They do not become habituated to the laser.

The company dedicated years of research to develop the ultimate laser beam. This was accomplished by applying a combination of highly precise optics, filtering and light frequencies.

*Source: FreshPlaza.com*

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# Why telling agriculture's story is more important than ever

KELLY DAYNARD

Today's farmers are facing a new pressure that prior generations couldn't have imagined. A century ago, more than half of all Canadians worked on farms. Today, that demographic makes up only about two per cent of the country.

We share many of the same struggles as our ancestors: battling pests, uncertain weather conditions, and fluctuating commodity prices. But a growing chasm between farmers and the people who consume our products has led to a new threat: the erosion of public trust in food grown and raised in Canada. It is a disconnect that allows fear to take root, and decisions based in fear can challenge the way we run our farms, and the methods we use to protect our crops or raise our animals. Those decisions, often based on emotion and hearsay rather than science and reason, gradually chip away at the confidence Canadians should have when it comes to the quality and safety of our practices and products.

With so few connected to food production, it's understandable

that the relationship has eroded between farmers and consumers and that disconnect continues to increase. According to data from the Canadian Centre for Food Integrity (CCFI), 93 per cent of Canadian consumers say they know little or nothing about farming practices. Such disconnect creates very fertile ground for misinformation and the perpetuation of food mythology (some of it intentionally created and agenda driven) that ultimately leads to unnecessary increased cost and stress, and in some cases already jeopardizing entire lines of Canadian farming.

It doesn't appear to be a lack of trust in the "farmer" as an individual that's at issue. Surveys show that reputation of a "farmer" is still one of a person who is highly trustworthy and respected. However, consumers generally have a pastoral or antiquated vision of what farming looks like – picturing the small, mixed farms that our ancestors operated. In the eyes of many consumers, "big" and "technology" and "production" aren't words to be admired when it comes to agriculture, rather these are words to be feared. And while they readily embrace

# **The 'AQUA Wetland System' "A new breed of constructed wetland"**

AQUA Treatment Technologies Inc. designs and installs the 'AQUA Wetland System' (AWS) for tertiary treatment of many types of waste water including sanitary sewage, landfill leachate, dairy farm & abattoir wastewater, greenhouse irrigation leachate water & mushroom farm leachate water (i.e. manure pile leachate) and high strength winery washwater.

The 'AQUA Wetland System' is operated out of doors and can achieve year-round tertiary treatment of wastewater. This sub-surface, vertical flow constructed wetland consists of sand & gravel beds planted with moisture tolerant plant species. Water is pumped vertically from cell to cell. There is no open or standing water. Treatment occurs through physical filtration & biological degradation. Plants shade & insulate the cells, cycling nutrients while preventing algae growth. There is no production of sludge.

The AWS has been approved for use by the Ontario Ministry of Environment through over 40 Environmental Compliance Approvals. Recently the Region of Niagara began approving the AWS for treatment of 'small flow' winery washwater i.e. < 10,000 liters per day. Other agencies who have issued approvals include Health Canada, USEPA and OMAFRA. Recent projects include:

- 1) treatment & re-use of greenhouse irrigation leach water at greenhouses in Niagara & Halton
  - 2) treatment of winery wastewater at Greenlane Estates Winery & numerous other in Niagara
  - 3) treatment of landfill leachate at sites in Pembroke, Niagara and Alabama

**For additional information please contact Lloyd Rozema at 905-327-4571 or email [lrozema@qqua-tt.com](mailto:lrozema@qqua-tt.com)**



# THE GROWER

technology in most other aspects of their lives -- such as their automobiles and smart phones -- consumers don't understand (and thus don't trust) modern technologies that farmers use.

Acceptance of technology used outside of the body (like cell phones) versus that which will literally be processed inside the body (or eaten), occupies a radically different space in the psyche of many consumers. It is no wonder then that word “natural” has become the most popular – and inherently anti-science – form of descriptive term now deployed at all levels of contemporary food marketing. The complete opposite of “natural” is, by definition, the application of human-created science and technology advancements such as GMOs and crop protection tools. These cause fear in the hearts of Canadian consumers who often feel that they’ve lost control of the very contents of substances going into their own bodies. Doubt-based marketing campaigns by big food companies only add to the problem which will only worsen if nothing is done.

Concurrent with the reputation and overall “brand” of agriculture coming under increasing public scrutiny, the public is increasingly being exposed to strategic marketing produced by non-farming (and often anti-farming) stakeholders that caters to their fears, and ultimately compounds the problem. Too often, these campaigns are in direct conflict with farming and agriculture brands. As agriculture loses control of its brand, it’s then left

to become redefined by well-funded special interest/activist groups or food companies with strong agendas. Major food companies have contact with millions of Canadians every day and can greatly influence consumer choices toward the so-called safer or healthier options such as “gluten free” or “GMO free” creating a false sense of differentiation often where no difference exists.

Despite these concerns, there are many reasons for optimism. CCFI research shows that while Canadians may not understand modern farming, they do want to learn more – 60 per cent of Canadians surveyed express an interest in having credible sources of information about the food they buy. Comparatively, a survey by Farm Credit Canada in 2016 of 2,700 farmers showed that 72 per cent of farmers are comfortable sharing their information and believe they have a good story to tell. If farmers want to tell their stories and consumers want to hear them, we’re well positioned for success.

Ontario consumers need to fall in love with food and farming all over again. And we need to re-connect with them collectively as an industry. We need to tell

our stories, introduce them to our farm families and remind them that farmers are working hard to produce healthy, affordable, safe and ethical food in a sustainable manner 365 days per year. We need a public that will defend the agricultural sector and claim farmers as their own; a public that will research dubious food claims and know where to go for credible information.

Farm & Food Care Ontario works hard to provide farmers with the tools they need to tell their stories. A resource library at [www.FarmFoodCareON.org](http://www.FarmFoodCareON.org) contains many tip sheets on how to run a farm tour, do a media interview, engage in social media discussions and more. We also offer Speak Up team-training sessions for farmers wanting to practise telling their stories. Hundreds of farmers in Ontario have taken that training over the last decade and it's gratifying to see them now working to tell their stories. We have a great story to tell – and it's up to all of us to tell it. It'll take everyone working in the industry to make a difference.

*Kelly Daynard is executive director,  
Farm & Food Care Ontario.*

## COMING EVENTS 2018

Oct 3-4	Canadian Greenhouse Conference, Scotiabank Convention Centre, Niagara Falls, ON
Oct 4	Haskap Workshop, Marriott on the Falls Hotel, Niagara Falls, ON
Oct 4-6	Canadian Society for Horticultural Science National Conference, Marriott on the Falls, Niagara Falls, ON
Oct 11-12	Biocontrols East Conference & Expo, Rochester Riverside Hotel, Rochester, NY
Oct 15-16	Advancing Women in Agriculture Conference, Niagara Falls, ON
Oct 18-20	Produce Marketing Association Fresh Summit & Convention, Orlando, FL
Oct 23	Ontario Agri-Food Technologies 21st Annual General Meeting, "Exploring Ontario's Indoor Agriculture Eco-System," Cutten Fields, Guelph, ON
Nov 1	Farm & Food Care Ontario Harvest Gala, Ballroom, Delta Guelph Hotel, Guelph, ON
Nov 2-11	Royal Agricultural Winter Fair, Enercare Centre, Toronto, ON
Nov 5-7	Canadian Produce Marketing Association Fall Harvest Meetings on the Hill, Ottawa, ON
Nov 6	Ontario Pest Management Conference, Victoria East Golf Club, Guelph, ON
Nov 6-9	North American Strawberry Growers' Association European tour, Netherlands & Belgium
Nov 7	PPEC Annual Fall Seminar, "Cutting through the Greenwash," Islington Golf Course, Etobicoke, ON 8 am-noon
Nov 9	Ontario Produce Marketing Association Annual Gala, Universal Event Space, Vaughan, ON

## RETAIL NAVIGATOR

## THE GROWER

## All about the Atlantic Canadian market



PETER CHAPMAN

As we continue to explore the different markets for your products we will focus on Atlantic Canada. This market has some unique characteristics, as they all do. If you are servicing the Atlantic market, you need to understand consumers and customers in four provinces: New Brunswick (NB), Nova Scotia (NS), Prince Edward Island (PEI) and Newfoundland Labrador (NL). This region is challenging in that the population is relatively small compared to other markets and the geography is bigger than many people perceive.

Population density is low in Atlantic Canada, with only 2.4 million people spread across four provinces. As you can see in the following table, Nova Scotia is the most populous province, with more than one-third of its residents living in Metro Halifax.

The population in Atlantic Canada is more homogeneous than other parts of the country. This would be the region in Canada with the highest percentage of the population having European roots. The majority are English-speaking however New Brunswick is approximately 40 per cent French-speaking and there are small populations of French-speaking households in Nova Scotia and Prince Edward Island.

The region does have a number of universities, which does introduce different cultures to the mix of consumers.

Consumer tastes are more traditional and there is less demand for fruits and vegetables popular in Quebec, Ontario or western Canada where we see the larger influence of immigration.

## Customers influence the buying decision

Loblaw, Sobeys, Walmart and Costco dominate the retail market for food. Recently we have seen dollar stores growing in numbers and sales of food. Loblaw and Sobeys both have corporate and franchised stores in the region. Walmart and Costco operate the same

corporate models they do in other regions.

Loblaw operate more than 50 Atlantic Superstores in NS, NB and PEI and close to 20 Dominion stores in NL. These stores are conventional stores with the added one-stop shopping features of pharmacy, limited housewares and Joe Fresh. Some of the larger stores offer larger general merchandise sections similar to a Real Canadian Superstore in Ontario.

The fresh produce in these stores would be comparable to the offering in conventional food stores across Canada. Many include fresh-cut fruit and salads produced in-store. Loblaw also operates Independent stores, which are designed to be a franchise format. These stores used to be called Save Easy, which is where I started my career in retail. The fresh produce offering is limited by the physical space and demand. If the Superstore carries 350 SKUs of fresh produce, an Independent store would have approximately 250. Recently Loblaw has opened a small number of No Frills stores.

Their central team in Cambridge, Ontario, does the merchandising and procurement for Loblaw. Atlantic Superstore and Save Easy are in the market division and similar to Ontario, the discount group manages No Frills. If you want to sell into these stores these are the Loblaw employees you must work with. They do maintain a local merchandising group in Atlantic Canada, but the central group makes the category management decisions. Loblaw implements their Grown Close to Home program as they do in other regions. Fresh produce is delivered to stores in the Maritimes (NS, NB & PEI) from a warehouse in Moncton, NB. NL stores receive their fresh produce from a warehouse in St. John's, NL.

Sobeys' roots are in Atlantic Canada so they have the 'local' position in the market and many consumers see them as a familiar shop and the store they grew up with. Sobeys have more than 80 Sobeys stores in the region with some stores being converted to Sobeys Extra. These are conventional stores with fresh-cut fruit and salads made at store level. Sobeys do a good job identifying local growers in their signage. The company also operates Foodland and Co op stores (NB), which are smaller and located in rural communities. These are franchised stores. Sobeys currently do not have any FreshCo stores in Atlantic Canada.

Sobeys used to operate regionally however recently they have changed to a central-

## Statistics Canada-Population by province 2016

	2016	% Atlantic Canada	Growth 2016-2018	% Canada
<b>Nova Scotia</b>	958,400	40.0%	3.8%	2.6%
<b>New Brunswick</b>	761,214	31.7%	1.9%	2.1%
<b>Newfoundland Labrador</b>	525,983	21.9%	1.2%	1.5%
<b>Prince Edward Island</b>	153,116	6.4%	1.9%	.4%
<b>Total</b>	2,398,713	100%	7.1%	6.6%

ized structure. The category management for vegetables has remained in Stellarton, NS while the same functions for fruit are performed in Ontario and hothouse products in Calgary. Sobeys stores do have more flexibility to buy some produce locally. Produce is distributed to stores in the Maritimes from a warehouse in Debert, NS and NL stores receive their products from a warehouse in Cornerbrook, NL. Walmart has more than 20 Super Centers in the Maritimes that are supplied by some local growers and from its new facility

in Cornwall, Ontario. They have room to expand their offering in the region, with a number of stores in NL that still do not have a full line of produce. The Walmart stores offer fewer SKUS than Superstore or Sobeys and they focus more on the basic, higher volume items. Recently we have seen more emphasis on local growers in the product mix, advertising and stores. Stores that have not been converted to Super Center offer a very limited line of produce. Their national merchandising team in Mississauga controls Walmart produce.

For the complete article visit <http://thegrower.org/columnists>

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 GPS Business Solutions and a partner in SKUfood.com, an online resource for food producers. Peter works with producers and processors to help them navigate through the retail environment with the ultimate goal to get more of their items in the shopping cart. [peter@skufood.com](mailto:peter@skufood.com)

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## MAKING MOVES

## Preparing your transportation program for seasonal changes



JENNIFER MORRIS

affect your freight from getting from you to your customer. Snow is always going to be an issue in the winter, however, knowing which areas have high risk of road closures and keeping track of them is important. Most of your carrier/broker partners should be doing this for you, but you should be aware of the areas of issue along the routes your product needs to go. Extreme temperatures, either hot or cold, can even affect product. Reefers are good and getting better all the time, but when temperatures dip or spike too high, items on the walls or near the doors can be affected.

### Plan, plan, plan

As with most of the transportation world, planning can make or break your day and/or project. Working with your carriers/brokers to discuss the seasonal changes and what adjustments need to be made to timeframes and expectations is important. It will not take the same amount of time to get to Vancouver from Toronto in the winter time versus the summer time - no matter what Google maps tell you. Having realistic expectations will only set you up for success with your customers. It is better to tell

So, a lot of us live in areas where weather and seasonal changes are going to affect the world of transportation. Everything from extreme cold, snow, ice and high winds can cause transportation of goods to slow down or even grind to a full stop. Doing as much as you can to prepare for this can help save some time, money and headache. While you cannot completely eliminate these issues, you can definitely mitigate their potential of rising.

### Identify the changes that will affect your supply chain

First of all, you need to understand what kind of weather/seasonal changes will



Photo by Glenn Lowson

customers that a load has shown up early from time to time, versus telling them that your truck is late due to weather. They may understand it is out of your control, but they might also question why you didn't plan better.

### Coordinate with your customers

To complement the above, it's key to manage your expectations with your customers. They don't live in a bubble -- they are aware that it snows in Canada and it gets cold. But they will appreciate a forward-looking approach to keeping product coming in when they expect it. If a timeframe is too tight or there is a possibility of something not making it, voice that concern. There is no harm in saying, "It will be a challenge to

make that delivery, we feel more comfortable with . . . to ensure safe and on-time delivery". No one wins if the truck ends up in a ditch trying to make a tight delivery time.

### Have a plan B

Sometimes customers may really need something in particular, and if they are willing to pay, then you can make some changes to the strategy. Team services and air freight are other ways to expedite a delivery in bad weather. However, if weather is just too bad, these options will not work either. Some companies send extra product to warehouses or distribution centres near their customers to help combat these issues. Think outside of the box and use the

relationships you have in order to find the right options for you and your customers.

### Acceptance

Finally, understand that there are things that are truly beyond anyone's control and loads will be late from time to time. However, the more you use the above ideas, the more you can mitigate this to the smallest number of incidences.

Weather and seasons will not always work in your favour, but they're also not typically a surprise either. Communication will always be the best way to keep things moving and arriving when expected. Being overly communicative is always better than little communication, leaving someone in the dark about what is actually happening.

## Global trends in produce logistics

### Naturally protecting your crops

#### Bio-Insecticides

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#### LOOPEX FC

#### REVOX<sup>BTM</sup>

#### CYD-X

#### Insect Monitoring

#### DROSAL PRO

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Shipping is entering a very difficult phase, with ongoing amalgamation, fewer large-scale customers and less competition on a global scale. The result is that logistics services are under huge pressure to deliver services on time and to shippers' satisfaction. Vessels are less punctual than ever and, as a result, perishable shippers are facing increasing costs and risks.

While the scope of solutions is restricted by a fundamental imbalance of power between shipping lines and a growing majority of perishable shippers that is suffering in silence, there are opportunities presented by new technologies to improve logistics solutions for perishable cargo. The crux of this industry-wide problem faced on a global scale, plus the potential solutions to improve services, will form the heart of the debate at this year's special 10th anniversary Cool Logistics Conference. It's to be hosted in Antwerp, Belgium from October 2-4.

Eric Legros of CMA CGM will deliver a keynote speech entitled 'Shipping or Shopping: The Big Squeeze?' to explore the current conflict between the

increasing trend towards bigger ships and slow steaming and other cost pressures on the carriers such as higher fuel costs and the growing end consumer demand for faster and more regular service. Can e-commerce demand for further convenience be reconciled with the current state of shipping? What can be done to improve the reliability of delivering high quality perishable products from farm to fork?

Also joining this debate is Nigel Jenney, CEO of the UK-based Fresh Produce Consortium, who represents a large body of perishable importers and exporters with wide-ranging concerns for the current and future status of the industry. Perishable shippers are worried about rising logistics costs and risk, not only because of the state of the shipping industry but also owing to the impact of Brexit. Shippers will be keen to know exactly how new technologies can reduce the risk they face.

However, there may be a further solution on the horizon. Along with technological solutions to lengthen the time that perishable products can remain at sea without quality



deterioration, there is a chance that a new competitor could provide a new dynamic in the market.

While there is less competition between shipping lines, competition could come soon from the improved rail link on the busiest trade route worldwide between the Far East and Europe. Prof. Hercules Haralambides will share his insights on the road and rail option that could add another string to the shippers' bow.

The renowned professor from the Maritime Economics & Logistics at Erasmus University Rotterdam will discuss the impact of the Belt

and Road Initiative (BRI) also known as the Economic Silk Road linking the main Eurasian countries by rail, road and sea on perishable trades.

With the U.S. opting for protectionist trade policies, China is looking for more reliable trade partners in Europe, and with manufacturing in China heading further inland, the rail link to Europe provides an increasingly feasible option. While the Russian trade embargo is a current obstacle, pressure to relax the policy is mounting and some commentators now foresee a softening of this position.

[www.coollogisticsresources.com](http://www.coollogisticsresources.com)

## BITS AND BITES

## New pickling plant for southwestern Ontario

The Ontario town of Wallaceburg is “pickled pink” with the news of Mrs. Whytes, a Quebec-based firm, opening a pickling plant in January 2019.

Elizabeth Kawaja, the company’s president, said that the facility will produce pickles, relish and marinated peppers. About 100 jobs are expected to be created.

The news is heartening because Ontario lost significant pickle processing capacity in 2011 and 2012 when two U.S.-owned processors pulled out of the province. In 2017, the Ontario processing cucumber industry was made up of 111 farms growing more than 3,000 acres and approximately 40,000

tons of pickling cucumbers across Elgin, Kent and Norfolk counties. Cucumbers represent the second-largest processing vegetable crop behind tomatoes with an annual farmgate value of approximately \$13 million.

“It is our hope that with this new local processing capacity, we will see this market continue to grow and prosper,” said Cathy Lennon, executive director, Ontario Processing Vegetable Growers.”

She explained the larger context of the role that pickling cucumbers play on southwestern Ontario vegetable farms.

“A steady flow of planting, harvesting and marketing a



series of hand-picked or labour-intensive crops such as asparagus, cucumbers, peppers, tomatoes and squash ensure the viability of a whole farm and allow for transition of resources,

particularly labour over a full growing season to achieve efficiencies and profitability for the sector,” Lennon said. “Having a full suite of vegetables in a farm cropping

plan also allows for good crop rotation, ensuring excellent stewardship, soil and water management strategies.”

## About the Blue Book

If you are operating a produce or a transportation business, it is essential to be listed in the Blue Book. A basic listing, consisting of company name, address, and phone number is free; additional information, noting names of brands, personnel, and contact information may be included at a small charge per line, per year. The idea is to provide a clear and concise picture of who you are and what you do, such that those seeking information about your business, can find what they need quickly, accurately, and reliably.

A listing, while important in

conveying the salient facts about your business, is not enough. What completes the picture is your Blue Book Rating. A rating adds credibility to business dealings and assists in establishing your firm as a trusted entity. Many thousands of dollars, stemming from business decisions, are based on Blue Book Ratings each and every day.

There are two different types of Blue Book ratings: predictive and historical.

A predictive rating assigns the likelihood that a company will become delinquent or go into default within a twelve-

month period. The rating is expressed in terms of a score, from 500 to 1000—the higher the score, the less likely a business will experience such an event; the lower the score, the greater the risk.

An historical rating consists of three parts:

**A financial rating**—also known as a credit worth estimate, it is based on an evaluation of an accountant-prepared year-end financial statement or tax return, representing the total amount of credit that should be extended to a business.

**Trade practices rating**—based on trade feedback and expressed from X to XXXX, it indicates how a company conducts its business operations. Such factors as trustworthiness, reliability, and honesty are considered by those reporting.

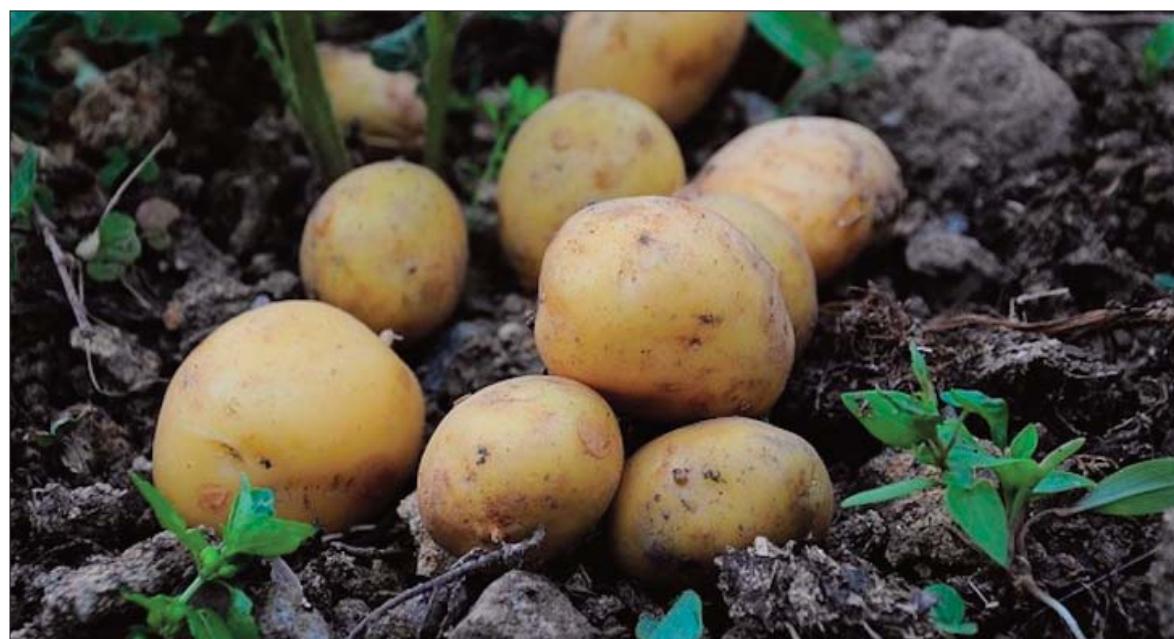
**Pay description**—based on trade feedback, it notes the average number of days for payment. Payment is measured from the date of invoice to the date payment is received. Pay descriptions range from AA (within 14 days) to F (60 days

plus).

Establishing a Blue Book rating is easy to do. The first step is to provide a list of trading partners with whom a business deals and a year-end, accountant-prepared financial statement (balance sheet and income statement as a minimum) or tax return. It takes approximately nine months to earn a complete rating.

*Source: Dispute Resolution Corporation*

## Frontier Max label expansion for potatoes



BASF Canada Inc. (BASF) has been granted a new label expansion for Frontier Max herbicide for control of annual grasses and key broadleaf weeds in potatoes.

In addition to its expanded label on potatoes, Frontier Max is also registered for use on corn, soybeans, dry beans, onions, cabbage and grapes.

“Potato growers continue to look for new solutions for their weed control challenges, and we believe Frontier Max will help our customers to address many of these needs,” commented Scott Hodgins, BASF horticulture crop manager.

“At the same time, the addition of potatoes to the Frontier Max label will help our retail customers to more effectively manage their inventories.”

With the addition of potatoes to the Frontier Max label, BASF will phase out Outlook herbicide from the marketplace.

For more information about Frontier Max herbicide, visit [www.AgSolutions.ca/Horticulture](http://www.AgSolutions.ca/Horticulture) or contact your retailer.

*Source: BASF September 21, 2018 news release*



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## FOCUS: NEW EQUIPMENT &amp; TECHNOLOGY

**An automated transplanter system offers labour savings**

The PlantTape automated transplanter was demonstrated near Chatham, Ontario in June 2018 showing tomato plants.



Elaine Roddy, OMAFRA vegetable crops specialist, shows how the tomato transplants are formed into plugs. Photos by Glenn Lowson.

KAREN DAVIDSON

Every single grower has struggled this year to contain labour costs, whether through time logging programs, incentives for group productivity or investments in new equipment. For broccoli grower Kenny Forth, the decision was to import PlantTape automated transplanting equipment from Salinas, California.

The machine has not been without its challenges, primarily because it does not have an on-board watering system. An early-season demonstration near Chatham, Ontario left many skeptical about the survivability of tomato plants transplanted on a hot and dusty day. However, the Forth family has reached out to family members to modify the equipment to include a watering device.

"This is an entirely new system of transplanting," says Forth at the home base

near Lynden, Ontario. In April, the trays arrive from California pre-seeded with no moisture. They remain in coolers until it's time to move them into the greenhouses for 30 days. With 810 plugs per tray, the seeds take off quickly with plenty of light and water. A water surfactant in the peat moss mixture helps to boost germination.

Once in the field, the PlantTape machine requires only three workers to drive and feed strips of plugs into the transplanters. Forth explains that 10 to 15 acres of broccoli are planted every week for a total of 210 acres. The savings are quickly obvious because the requirement for greenhouse space is halved with the ability to stagger germination times. There are 810 plants per tray versus the standard 200- to 288-cell trays. Conventional planting required eight workers whereas three workers can manage the process now.

"Timing was always stressful," says Forth. "Between June and August we were both harvesting and transplanting." Labour requirements are easier to manage now.

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## FOCUS: NEW EQUIPMENT &amp; TECHNOLOGY

# What's new in efficient vineyard equipment



Freilauber auger.



Freilauber spreader.

**It's all a balance between environmental stewardship and return on investment.**

~ SEAN BARTLETT

KAREN DAVIDSON

Grape growers have quickly adopted labour-saving equipment but are continuously looking for an edge in features such as fewer costs in maintaining that equipment. Provide Agro, for example, introduced the German-made Freilauber line earlier this year to its customers in northeastern Canada and the U.S.

"Hedgers are not new but the latest designs require less power to run, while moving at speeds of 10 kilometres per hour versus the standard five kilometres per hour," says Sean Bartlett, business unit manager, Provide Agro, Beamsville, Ontario. "Some of these new hedgers can trim two full rows versus two half-rows, thus making fewer trips in the vineyard. It's all a balance between environmental stewardship and return on investment."

Here are three new pieces of equipment to consider. All orders must be in by December 1 for the 2019 growing season.

**Freilauber auger.** This is a very rugged piece of equipment manufactured in Germany where vineyards are similar in plant architecture to northeastern North America. For the ongoing job of pulling out dead vines and replacing them, this machine can articulate underneath the vineyard wires. On top of the machine, a hydraulic pusher can push steel posts back into place.

Transplanting vines is a much easier process.

**Freilauber spreader.** Not many spreaders are made specifically for horticulture. That's why this equipment, available in a range of sizes to accommodate row widths, is so handy. It can be used in grape vineyards as well as tender fruit and apple orchards. The spreading plate can be adjusted depending on what is being broadcast: fine and coarse compost, manure or straw. It comes with a standard tandem axle with brake cylinder. Scraper floor and drums are oil-powered and can be controlled independently of each other.

**Freilauber vine trimmer.** What's unique about this vine trimmer is its diamond-shaped blade. These long-lasting blades can be flipped up to four times in their life cycle. Replacement blades are inexpensive. It does not take a lot of hydraulic fluid to move at higher speeds, making this an efficient machine in a job that takes lots of time over large acreages. Another benefit is the openness of the machine, making sight lines more distinct.

The technical brochure says that the trimmer has outward-facing cutting unit suspensions featuring cutting units mounted at the center of gravity, meaning there is no offset tilting and that cable assemblies cannot become caught in the arms.

For the future, Provide Agro staff will be looking at apple equipment this fall. They will be attending Interpoma in Fiera Bolzano Italy from November 15-17.



Freilauber vine trimmer.



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## THE GROWER

## FOCUS: NEW EQUIPMENT &amp; TECHNOLOGY

# Data will be the fuel that drives farming forward

## MYRNA STARK LEADER

Agriculture 4.0 is coming on fast and Peyman Moeini, founder and president of Peytec Inc., says producers need to be ready.

"If you don't disrupt yourself, someone else will," says Moeini, who spoke about the next industrial revolution and its implications for agriculture to a full audience in the innovation area at the Pacific Agriculture Show in January.

Moeini, now 28, was in his second year of bio-medical engineering at Ryerson University in Ontario when he designed a software algorithm that could automatically detect tumors and lesions in medical images. He then made the software perform 500 times faster, reducing processing times from 45 minutes to five seconds.

The innovation earned Moeini an Ontario engineering design competition award and won him an invitation to the DMZ, Ryerson University's business incubator for early-stage technology startups. That's where he started his company, Peytec, to create a disruptive and innovative Industrial Internet of Things (IIoT), which are largely business-enabling solutions to fix real-life issues.

Peytec's scalable wireless communication networks, cloud-based data analytics and products can connect location-aware (indoor and outdoor) proprietary smart sensors and data collectors in any business.

Moeini was recently in Timmins, Ontario, working with a gold mining company. They were piloting the use of sensors to track loads of ore coming out of an underground mine. The sensors ensure loads containing gold not visible to the naked eye make it to the smelter, rescuing thousands of dollars from the slag heap.

In agriculture, Peytec's systems are used at Sheridan Nurseries, one of the biggest and oldest in Canada. Sheridan is a fully integrated nursery supply company with eight garden centres across Greater Toronto. Peyman started working with them in 2014.

Pieter Joubert, vice-president of nursery operations for Sheridan, says the collaboration began while looking into sensors to track moisture levels across a 700-acre growing facility that produces approximately 2.5 million plants annually. Plants are grown in a variety of conditions, from climate-controlled greenhouses to open field beds where temperatures can run from 35° C in the summer to -25° C in the

winter.

"Peytec's proprietary scalable Wireless Positioning and Sensing Network (WPSN) bonded well for integrating it with a wide array of sensors which were already available in the marketplace, from measuring indicators such as temperature, pH, sodium levels, to moisture and humidity," Joubert explains. "We could potentially create an interlinked network of data via individual, strategically placed sensors without having to invest in expensive WiFi infrastructure."

The nursery also required:

- by-exception reporting (feedback only when values fall outside pre-set ranges for different crops), which enables employees to make a correction;
- simple smartphone texting updates and individual smartphone notification per grower, which is more accessible;
- grower ability to tweak and monitor values and communicate to a central database updated in real-time with set intervals depending on sensitivity of crop;
- robust, low-power consumption modules making stand-alone sensors cost-effective and reliable for at least a full growing season in any climate condition;
- scalability;
- and exception reporting to management via a secure, cloud-based central dashboard console on the Internet.

Sheridan then used the communication technology to develop GPS tracking with serialized modules that accompany specific, multi-day, multi-drop deliveries across Ontario, to Newfoundland and Atlantic Canada and the US. The company puts individual modules, which are specific to the load, into shipments. The module enables the customer to track their delivery on Google via an internet site. The advantage is cost-effective inventory management and tracking sensitive loads in a way that is lower-cost for customers, the trucking companies and Sheridan employees who can all follow the shipments progress and understand potential issues sooner.

These technologies are adaptable to other sectors in edible horticulture.

*Myrna Stark-Leader is a freelance agricultural journalist in Kelowna, British Columbia.*

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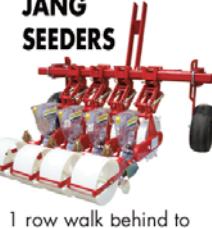
Mechanical 5000T twin row transplanter. One operator feeds two rows. Ski model twin row spacing from 12-20", Packer wheel model 16"-20". Staggered twin line plant spacing pattern.

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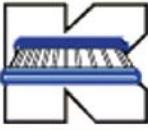
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KAREN DAVIDSON

When the Tupling Farms' potato packing house and storage operations were destroyed by fire on March 7, 2017, it didn't take long for the family to regroup. Bert and Pat Tupling, their sons Andrew, Aaron and families vowed to rebuild north of Shelburne, Ontario.

The cause of the fire was suspected to be an electrical fault where some of the tow motors were recharging overnight. That premise figured prominently in the planning of the new structure which now has separate bay areas for

recharging and an entire firewall-protected room for the electrical panels.

If you have a chance to build your dream packing house, then the comfort of trucking employees is a consideration. All loading docks are now under cover with heated floors.

More than a year later, the 100 foot by 400 foot building is now the envy of every potato grower in eastern Canada. Those who toured the facility in mid-August during the Ontario Potato Field Day had one comment. "It's state-of-the-art."

For highlights of the multi-million dollar investment, see the photos above.

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# ONvegetables



Ontario Ministry of Agriculture, Food and Rural Affairs

## Weeds to watch: invasive pigweeds – waterhemp and palmer amaranth

KRISTEN OBEID and  
DAVE BILYEA

The first line of defense against waterhemp and palmer amaranth is proper identification. It is EXTREMELY difficult to identify waterhemp and palmer amaranth from other pigweed species especially as seedlings.

Currently, waterhemp has been found in five Ontario counties: Bruce, Chatham-Kent, Essex, Lambton and Middlesex. Since 2015, Dr. Peter Sikkema's research team (University of Guelph, Ridgetown Campus) has surveyed 76 sites across Ontario and have confirmed waterhemp with cross-resistance to Groups 2 (ALS inhibitors, e.g. Pinnacle, Prism, Pursuit), 5 (Photosystem II inhibitors, e.g. Gesagard, Sencor, Simazine, Sinbar), 9 (EPSP synthase inhibitor, e.g. glyphosate) and 14 (PPO-inhibitors, e.g. Authority, Aim, Chateau, Goal). Waterhemp is the first weed in Ontario with confirmed resistance to PP0-inhibitors (Group 14). The Group 14-resistant samples were all found in Essex County and within 25 kilometers of each other. Even more concerning is the fact that all of these samples have cross-resistance to Groups 2, 5 and 9 herbicides.

Palmer amaranth is not presently listed as being found in Canada, however, historically it has been found in scattered locations in Ontario: Forest – 1966, St. Thomas – 1978 and Niagara Falls – 2007. Palmer amaranth has been found in all of the U.S. states that surround Ontario and the Great Lakes (Figure 1). Palmer amaranth is native to the Sonoran desert of the southwest United States and northern Mexico. It is ideally adapted to thrive in dry

and high heat conditions. The most recent survey (2016) conducted by the Weed Science Society of America (WSSA) lists palmer amaranth as the most

troublesome weed in U.S. agriculture (field crops, fruits and vegetables).

Continued on next page

Palmer amaranth distribution in the continental United States

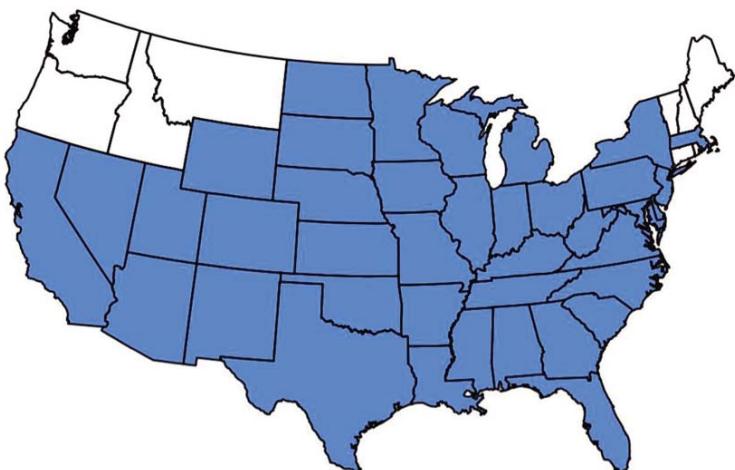


Figure 1. Current documented sighting of Palmer Amaranth in the U.S. (2017) U.S. It is now also found in North Dakota.

Pigweed (Amaranth) Species	Growth Habit	Identification Tips
Green Pigweed (Powell amaranth) ( <i>Amaranthus powelli</i> )	Erect, branched 0.6-2.1 M	First true leaves narrower and more tapered toward tip than redroot or smooth; plant may be slightly hairy but less than redroot.
Palmer Amaranth ( <i>Amaranthus palmeri</i> )	Erect 1-3 M	Male and female plants (dioecious) Male seed heads soft (similar to smooth pigweed) Female seed heads spiny Plants are virtually hairless with very long petioles Occasionally a dark red/purple or white water or "V" mark or patch on leaf blade Leaves can sometimes have a single short hair at the tip of the leaf blade As plants become older, they can often assume a poinsettia-like appearance Plants can grow up 7 cm in a day
Prostrate Pigweed ( <i>Amaranthus blitoides</i> )	Prostrate mat to 1 M across	Thin shiny leaf blades can form dense circular mats Stems fleshy and pliable Leaves are paddle shaped Often confused with purslane and spurge species
Redroot Pigweed ( <i>Amaranthus retroflexus</i> )	Erect, branched 0.6-2.1 M	Upper stems and leaves usually covered with fine hair Leaf margins tend to be wavy Older leaves form a diamond shape
Smooth Pigweed ( <i>Amaranthus hybridis</i> )	Erect, branched 0.6-2.1 M	Similar to redroot pigweed may hybridize with closely related species Leaves are hairless, upper stems densely hairy Leaves less wavy than redroot Seed head more branched than redroot or green
Spiny Amaranth ( <i>Amaranthus spinosus</i> )	Erect to bushy 0.3-1.1 M	Pair of stiff, sharp 0.25 cm spines at base of each leaf; stems smooth, hairless, often reddish Maybe mistaken for female Palmer amaranth
Tumble pigweed ( <i>Amaranthus albus</i> )	Erect, bushy 0.3- 1 M	Leaves are usually spatulate, smaller than other pigweed species, bushy and branched Plants break off at the base and roll in the wind dispersing seeds
Waterhemp ( <i>Amaranthus rudis</i> )	Erect 1-3 M	Male and female plants (dioecious) Plants develop paddle shaped leaves Plants are virtually hairless Plant resembles redroot and green pigweed as a seedling

Table 1. Key Tips to Identify Waterhemp and Palmer amaranth Compared to Other Pigweed Species

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## ONTARIO VEGETABLE

## Weeds to watch: invasive pigweeds – waterhemp and palmer amaranth

Figure 2. Pigweed (Amaranth) species seedlings



Palmer amaranth seedling – notched tip, no hairs, broad ovate shaped leaves, no waxy sheen.



Waterhemp seedling – egg shaped cotyledons, notched tip, no hairs, narrow lanceolate leaves, waxy sheen.



Redroot pigweed seedling – notched tip, small fine hairs, ovate shaped leaves. Green and smooth pigweed very similar.



Palmer amaranth

Waterhemp

Green pigweed

Redroot pigweed

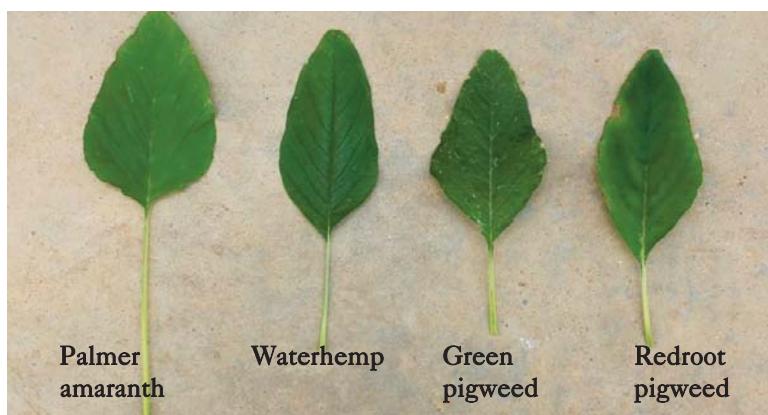


Figure 3. Pigweed (Amaranth) species leaves and petioles. This picture shows the longer petiole of Palmer amaranth. The petiole is longer than the leaf when folded over.

Photo credit: C. Shropshire

If you suspect you have waterhemp or palmer amaranth on your farm please contact Kristen Obeid: [kristen.obeid@ontario.ca](mailto:kristen.obeid@ontario.ca) or 519-738-1232

You can also contact Kristen to obtain a power point presentation identifying the various pigweeds for educational purposes.

**Other resources**

Invasive Pigweeds: Palmer Amaranth and Waterhemp, Penn State Extension <https://extension.psu.edu/invasive-pigweeds-palmeramaranth-and-waterhemp>

Palmer Amaranth Biology, Identification, and Management, Purdue Extension

<https://www.extension.purdue.edu/extmedia/ws/ws-51-w.pdf>

Identification of the weedy pigweeds and waterhemp of Iowa, Iowa State University Extension

<https://store.extension.iastate.edu/product/Identification-of-the-Weedy-Pigweeds-and-Waterhemp-of-Iowa>

Kristen Obeid is OMAFRA weed management specialist – horticulture. Dave Bilyea is responsible for weed management – horticulture, University of Guelph, Ridgetown Campus

**NOTICE OF MEETING**

Notice is hereby given that the  
Annual General Meeting

of the

FRESH VEGETABLE GROWERS OF ONTARIO

will be held in the Town of

Woodstock, Ontario

at the

Ontario Ministry of Agriculture, Food and Rural Affairs

**December 13, 2018**

9:30 a.m. – 4:00 p.m.

In the large boardroom

Election of Directors of the Association, discussion of financial reports and  
any other business that may arise will take place.

Lunch will be provided.

Meeting details will be posted to the FVGO website as they become available.

[www.freshvegetablesontario.com](http://www.freshvegetablesontario.com)

To register for the meeting please call the FVGO office, 519-674-1500 Ext 63592

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- Must have a working knowledge of GPS systems
- Vegetable farming experience also Beneficial
- Must have a valid drivers licence. AZ or D licence beneficial but not essential

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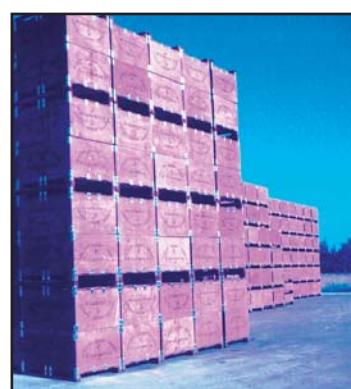
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Election of Directors of the Association will take place  
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Right across Canada, soil health has taken on more urgency as growers seek to improve yields. As part of that trend, they are looking to biostimulants that can support plant vigour and can help plants to tolerate harsh environmental conditions. This is a first-time editorial package dedicated solely to this new product category.

booking deadline: November 15, 2018

ad copy due: November 19, 2018



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## MINOR USE

## Ever changing world of crop protection



**CHRIS DUYVELSHOFF**  
CROP PROTECTION ADVISOR,  
OFVGA

As I start this role of crop protection advisor with the Ontario Fruit and Vegetable Growers' Association (OFVGA), it is amazing to reflect on the multitude of changes that I have observed in still a relatively recent career in the industry. Looking back on now seven seasons in edible

horticulture, what is clear is that crop protection has become a rapidly changing field. I think many would agree that some of the most radical changes have occurred in the last decade, or even just the past year or two.

My career in horticulture began in 2012 when I was hired as an extension specialist with Perennia Food & Agriculture in Nova Scotia's Annapolis Valley covering tree fruit production. It was immediately evident how access to crop protection tools was needed. A short time later, I witnessed firsthand how they can also be vital for the survival of an industry.

In 2014, following a very unusual early-July hurricane, the apple orchards of Nova Scotia were completely devasted by fire blight. The epidemic was near total with virtually every block infected. Many growers questioned the future of their orchards. First

and foremost, it was the carefully timed use of streptomycin -- and a lot of help from outstanding U.S. Cooperative Extension staff! -- that prevented the infection cycle from repeating, ultimately keeping the disease controllable in following years. I can't imagine where the Nova Scotia industry would be today without that control option available.

In recent years, horticultural crop protection in Canada has been under threat as we seem to be losing registrations of active ingredients faster than new products are coming to market. Back in 2012, several of the oldest registered products introduced in the 1960s were being phased out of use. These included organophosphate and carbamate materials such as azinphos-methyl and carbofuran. There were also generally viable alternatives for

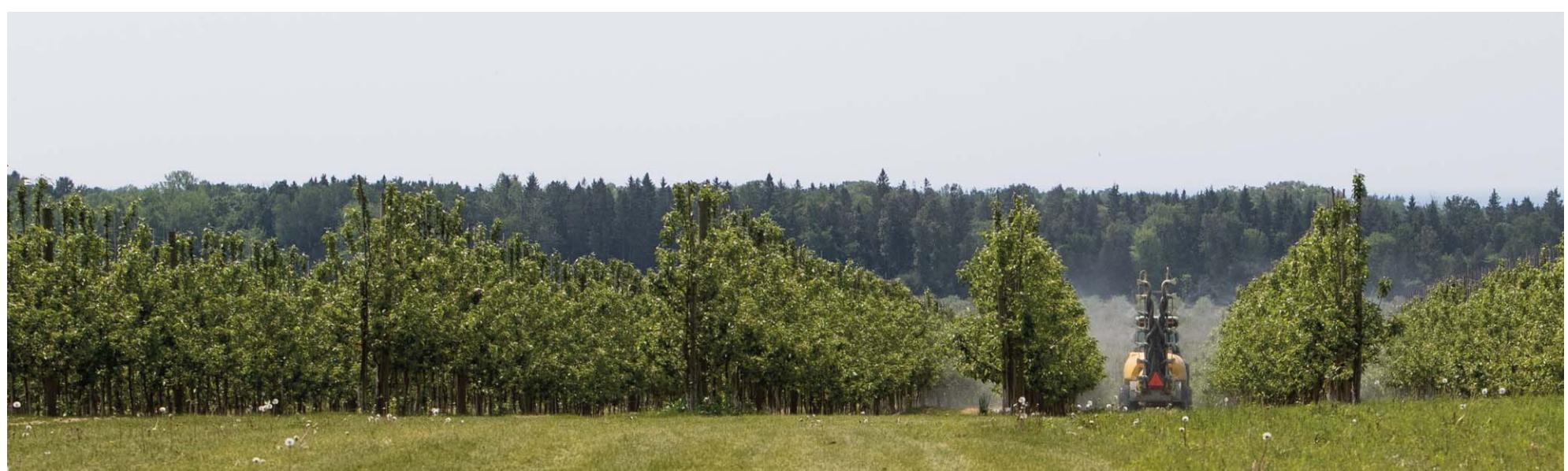
their replacement. Since then, however, decisions or proposals to eliminate or severely restrict use of many materials across a wide range of fungicides and insecticides have been issued, and in many cases, with few to no clear alternatives.

Restrictions on multi-site fungicides captan, chlorothalonil, and recent decisions on EBDCs have clearly raised concerns about disease control and resistance management across nearly all crops. Proposed elimination of many of the uses of the neonicotinoid insecticides would also prove challenging for insect control, where neonic seed treatments and in-furrow uses of these products have actually reduced total foliar insecticide applications to the crop.

From my prior experience at Syngenta Canada as well as conducting many field

development trials for various manufacturers, it is clear that there are indeed new active ingredients in development – both of conventional and biological nature. Of course, what is rare are truly new modes of action. These are going to be essential to mitigate the potential loss of some of our most valuable current materials. It will be no simple task to replace the broad-spectrum and resistance-free qualities of multi-site fungicides and equally so, the systemic and long-lasting residual control provided by neonicotinoids.

In spite of all the current challenges, I look forward to continuing OFVGA's efforts on ensuring access to crop protection materials for Ontario's fruit, vegetable, and ginseng growers. The industry needs them to ensure continued production of safe and healthy food in Ontario for all Canadians.



Streptomycin is applied in apple orchards during bloom to prevent fire blight. Photographed at Knight's Appleden Fruit Ltd., Colborne, ON by Glenn Lawson.

## Three biopesticide priorities determined

The Pest Management Centre's Pesticide Risk Reduction Program (PRRP) has announced that new biopesticide priorities for regulatory support have been determined as the result of merit analyses conducted on the six candidate biopesticides identified by stakeholders at the 2018 Biopesticides and Minor Use Priority Setting Workshops.

In consideration of the merit analysis and in consulting the panel of provincial minor use coordinators and PRRP technical working group members, the consensus is to establish regulatory support projects on the following three biopesticide products:

Source: Pest Management Centre September 20, 2018 news release

### Pesticide Risk Reduction Program Biopesticide Priorities selected - 2018

Product (Trade name)	Product (Active ingredient)	Registrant (Company)	Type of project	Product type
Restrain	ethanol converted to ethylene	Restrain Company Ltd	New registration	Growth regulator
Trident	Bacillus thuringiensis tenebrionis	Certis USA LLC	New registration	Microbial insecticide
Captiva Prime	Capsicum oleoresin extract, garlic oil, and soybean oil	Gowan Company, LLC	New registration	Non-conventional insecticide

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## CROP PROTECTION

## The problem with shelving neonics

KAREN DAVIDSON

The family of chemistries known as neonicotinoids -- neonics for short -- is now globally notorious for the controversial link to bee deaths. Whether growers believe or refute the science is now immaterial as regulatory agencies have severely curtailed the use of neonics. In Canada, the Pest Management Regulatory Agency is phasing out the use of active ingredients clothianidin and thiamethoxam.

Next year, the ramifications of those regulatory decisions will become very real on the ground as Hank Markgraf explains. For 30 years, he's been an orchard owner with 20 acres in Kelowna, British Columbia as well as the field services manager for BC Tree Fruits. So he's got unique field acumen from practical experience and advising others.

The example of aphids in tree fruit demonstrates how growers will need to adjust their strategies for integrated pest management without neonics in the arsenal. There are three kinds of aphids that can afflict orchards: green aphids, rosy apple aphids and woolly aphids.

"We haven't had much aphid pressure in our Okanagan orchards," reports Markgraf, after consulting with his field team. "But if populations go sideways, especially woolly aphids, then they are a problem."

Green aphids are easiest to control. Growers might observe them if a good job hasn't been done sucking young trees or a combination of insect species overpowers biological controls. Similarly, rosy apple aphids don't generally pose a problem, but if populations take off, they

are easy to control with available chemistries. Woolly aphids, with their unique ability to create tufts of white net-like secretions, are most difficult to control.

"No one wants to get woolly aphids, but it's often the one species we get," says Markgraf. "These aphids like to live at the base of the root sucker or the bud union."

This insect causes indirect damage by sucking out plant fluids and suffocating the bud union with its woolly net. By the following year, a dead stick is the result -- a costly loss in young trees.

In the past, there's been a number of crop protection products to choose from but with the loss of neonics, the list is shortened. Of Sivanto, Exirel, Movento, Beleaf and Closer, only Closer, Beleaf and Movento remain for the control of woolly apple aphids. While malathion is registered, it is not a realistic choice because it is not effective.

"Some companies are re-evaluating the data on their chemistries," says Markgraf. "Growers likely won't use the product if the label promises only suppression, but perhaps if the product is used at higher rates, the effectiveness could be improved."

Biological controls should be considered in an integrated pest management program but as Markgraf explains, "You still need a hammer."

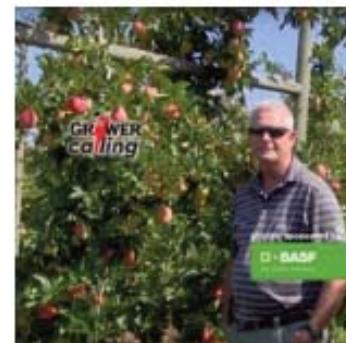
Markgraf's best advice for 2019 is to "think backwards" in terms of an integrated pest management program. Growers often plan a program starting in March, but he suggests starting in August and working back.

"Closer, for example, can be used only twice per year," says Markgraf. "It's likely going to



Woolly apple aphid

**For more information, listen to The Grower Calling podcast with Hank Markgraf at [www.thegrower.org/podcasts](http://www.thegrower.org/podcasts)**



The Grower Calling  
Hank Markgraf reviews  
aphid control in apples

28 minutes

#News &amp; Politics

14:17

be used to control *Campylomma*, more commonly known as mullein plant bug, early in the season. It will have some residual effect on green and rosy aphids. But what happens

if you get a case of woolly aphids. You'll need to save that chemistry for a second use later in the season."

In planning an integrated pest management program, the

goal is to give some "play room" by using other chemistries and saving some chemistries for strategic moments.

## Bayer outlines its vision for future of agriculture

Joined by farming stakeholders, academia, NGOs and industry experts from around the globe, Bayer outlined its vision for the future. The company reaffirmed its commitment to innovation, sustainability and digital transformation to help ensure the world's rapidly growing population can be fed without starving the planet.

"Farmers are hungry for innovation that will help them grow more with less and help ensure adequate access to safe, nutritious and affordable food now and in the future," said Liam Condon, a member of the

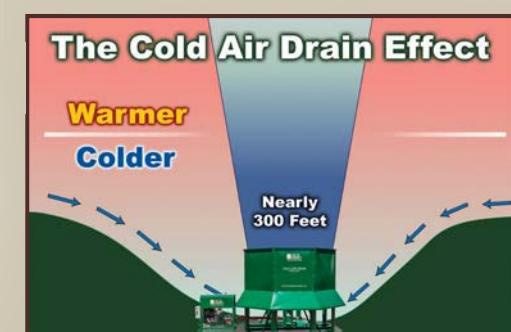
Bayer board of management and president of the crop science division, during his presentation at the Future of Farming Dialogue 2018.

The company's first major event since coming together on August 21st, the Future of Farming Dialogue brings together thought leaders and stakeholders from all various angles of society to discuss ways to make the world's food system more sustainable for the benefit of farmers, consumers and the planet.

*Source: Bayer September 18, 2018 news release*



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# ||||||| *Let's Grow Together*

## *To Our Valued Customers and Partners*

With harvest in full swing, we know this is a busy time of year for all of us in agriculture. At Bayer, this season also brings an historic milestone that will help us achieve even more together as we look toward our collective future. I'd like to take this opportunity to tell you about it.

Growth – both on the farm and in our industry – requires a steady stream of new innovation. This can only be driven by ground-breaking R&D aimed at finding new solutions to the challenges you face in your fields every day. We are confident we can help make a difference.

Our recent acquisition of Monsanto combines our 150-year history of innovation and service excellence with Monsanto's portfolio of seeds, traits and data science. To say we are excited about the future would be an understatement.

To our Canadian growers: Everything we do, including this acquisition, is built around helping you improve your operation. Your success is our success; it's that simple. And we will continue to work hard in the months and years ahead to earn – and keep – your business.

To our stakeholders across the industry: We won't be successful unless you are equipped with the knowledge and support you need to keep serving the growers who depend on you in the way they've come to expect. You are a critical link in the support system that growers trust, and we are committed to our relationship.

These are truly transformational times in our industry, but we are here to listen, answer your questions, and develop a path forward together. This is how Bayer does business.

If you have questions related to a product remaining in the Bayer or Monsanto portfolio, your regular Bayer or Monsanto contact will be happy to help you. You can also find more information at **AdvancingTogether.com**.

We appreciate your hard work producing crops for the benefit of consumers around the world. Above all, we're proud to work with you, and we're eager to earn that privilege every spring.

Have a safe harvest,

A handwritten signature in black ink, appearing to read "Al Driver".

Al Driver  
President & CEO  
Crop Science Canada