KAREN DAVIDSON

Bets are that when you eat an onion ring, you don’t know that it originated 40 minutes from the Cavendish Farms’ plant in Wheatley, Ontario. Or that quinoa-coated onion rings are as close as your grocer’s freezer section.

That’s the kind of innovation that’s underway in Ontario’s processing vegetable sector with a farmgate value of $100 million annually. For many years, it’s been a reliable business for brothers Kevin and Pascal Jennen, Dresden, Ontario and Ian Bradley, Pain Court, Ontario. They are long-time growers of processing vegetables for Omstead Foods, the predecessor of Cavendish Farms which took over the Wheatley plant in 2009. They supply Spanish onions for the months of August through October. After that, Cavendish Farms sources its supply from the U.S. Unlike cooking onions, these processing onions must meet a specification of three- to four-inch diameters with a single center. The large size is needed for easy peeling and processing.

“We like what we do,” says Ian Bradley. “But we have no idea of what’s in store for 2019.”

Negotiations will soon be underway through the Ontario Processing Vegetable Growers (OPVG). However, an acceptable price may not guarantee 2019 contracts with the same or more pounds for next year. The processors are balancing many variables including availability of North American supplies, exchange rates and consumer demand. With the proposed United States Mexico Canada Trade Agreement (USMCA), yet to be ratified, it would seem there will be unfettered flow of raw product from the U.S. to Canadian-based processors. Continued on page 3
The Ontario government has eliminated the “unfunded liability” portion of Workplace Safety and Insurance Board (WSIB) premiums. As a result by January 1, 2019 employers should notice close to a 30 per cent reduction in their premiums. WSIB, previously known as worker’s compensation, is a no-fault insurance program for workers injured or killed on the job. The “Unfunded Liability” is the shortfall between future obligations to pay injured workers and the money available to pay them. At the peak, the unfunded liability was $14.2 billion in 2011.

“This is great news for all businesses,” says Ken Linnington, policy advisor, Labour Issues Coordinating Committee. “The restructuring of Ontario’s health and safety system continues with the premium rate system designed to change significantly in 2020.

It's Royal time!

Once again the Ontario Fruit and Vegetable Growers’ Association (OFVGA) will be coordinating a fruit and vegetable focused exhibit at The Royal Agricultural Winter Fair in Toronto November 2 to 11, 2018. “We will be located in the Farm To Table Discovery Zone located in Hall B next to the Giant Vegetable display,” says Dan Tukendorf, OFVGA project manager. “Various member organizations will be rotating throughout certain days of the fair providing product samples, recipes and educational materials.”

Here’s the schedule
Nov 2 – Norfolk Fruit Growers
Nov 3 & 4 – Ontario Apple Growers
Nov 4 – OFVGA
Nov 5 – OFVGA
Nov 6 – Ontario Potato Growers
Nov 7 – Holland Marsh Growers
Nov 8 – Ontario Greenhouse Vegetable Growers
Nov 9 – Ontario Greenhouse Vegetable Growers
Nov 10 – OFVGA
Nov 11 – OFVGA

Key highlights include
• A large open concept exhibit space within the Farm To Table Discovery Zone in Hall B next to the Giant Vegetable display https://photos.app.goo.gl/1LGZ9Gz7opPZzhJY7
• Large market style fresh fruit and vegetable display
• Video presentations giving a behind the scenes look at what it takes to get fresh fruit and vegetables from farm to market
• Supporting infographics and posters highlighting key industry statistics, crops and technology
• Product sampling and promotional item handouts

2017 Key Stats
• Over the five school days (Monday to Friday) there were more than 270 schools with more than 14,000 students attending the fair
• Participating organizations collectively handed out:
  • 15,000 apples
  • 3,000 pears
  • 2,000 tomatoes
  • 23,000 carrots
  • 2,000 mini cucumbers
  • 4,000 grape and cherry tomatoes

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We like what we do. But we have no idea of what’s in store for 2019.

~ IAN BRADLEY

Continued from page 1

But an outward flow will also occur from Bonduelle Canada which announced $79.8 million earlier this year to update its Tecumseh, Ingersoll and Strathroy plants. The investments, topped up with provincial government funds, will put Green Giant canned vegetables as well as new frozen products on trucks bound for the U.S. The company expects exports to the U.S. to increase by $34 million annually.

That’s good news for the Ontario Processing Vegetable Growers which crafted its 2017-2021 strategic plan before the USMCA deal. The association represents 384 growers who supply a total of 14 processors in the province. One of the biggest threats to the industry is mobility of capital to the U.S. and lost share to Mexico which can produce raw materials with less cost.

The processing tomato industry is a good case in point. Half of farmgate revenue from Ontario’s processing vegetables, about $52 million is in tomatoes, however this crop represents only three per cent of what California produces. The sector is vulnerable in a global context because of its relatively small size and the fact that strategic decisions are made outside of Canada.

Tomato processing is recovering after a low point of $34.4 million farmgate value in 2013. That’s the year that H.R. Heinz announced its abandonment of its historic plant in Leamington. Since then, Highbury Canco has taken up residence and along with other tomato processors, farmgate value in 2017 was $51.8 million. Final numbers aren’t known yet for 2018.

The most positive uptick for Ontario’s processing sector comes from the August 2018 announcement of $16.5 million by Whytes Foods for a new facility in Wallaceburg. The family-owned, Quebec-based company says it will be ready to handle the 2019 crop, with a need for 500 tons of fresh peppers and 7,000 tons of fresh cucumbers for the iconic brand of Strub’s pickles. In its media release, Whytes Foods cited the reasons for its investment: prime agricultural real estate, crop risk management with the other growing region of Quebec and proximity to the U.S. market.

As harvest winds up, Ian Bradley is shipping to three different processors: carrots for dicing at Bonduelle’s plant in Tecumseh, baby carrots to Bolthouse Farms’ plant in Wheatley; carrots for slicing to Bonduelle in Strathroy.

His farm is located about 40 minutes away from each of these processors. It’s clearly a triangle rich in soil, water and knowledge for food production. The hope is to capitalize on those assets for a healthy processing sector in the years to come.

The Grower goes “Behind the Scenes” of this cover story and speaks with Cathy Lennon, general manager of OPVG. To listen visit www.thegrower.org/podcasts.

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Source: OPVG website

Carrots bound for Bonduelle’s plant at Tecumseh, Ontario.
BC Fresh expands

From humble beginnings, the BC Fresh vegetable warehouse distributor now sells 200 million pounds of produce annually. Its recent move into expanded facilities increases its capacity by 80 per cent, from 1,100 to 1,900 pallets and from 10 to 16 loading bays. Murray Driedger is the president and CEO, and has been with BC Fresh since 2007.

A story in the October edition of Country Life in BC says that while potatoes remain the company’s core business, it also markets Brussels sprouts, broccoli, beans, beets, turnips, sweet corn, shallots, squash and onions. They plan to add several new lines next year. Most of their market is in western Canada, but they ship as far east as Ontario and south to Texas and California.

The article goes on to say that first and foremost, BC Fresh sells BC-grown produce under its BC Fresh label. When the local supply is exhausted, it sources product from other western provinces and even the U.S., if necessary. Product sourced from outside B.C. is sold under the Best Fresh label.

The new facilities are expected to serve the company for the next decade. But just in case, the company bought the adjacent land parcel for expansion, if and when it’s needed.

Uncontrollable weather factors cause mental health strain

TERENCE HOCHSTEIN

Over the last couple months, North America has had its share of weather events: the hurricanes in the Carolina’s; the ongoing forest fires in the west; the tornadoes in Ontario and Quebec; and the recent early season snow storms in western Canada. News media show the rest of the world the devastation and the all-too-often unfortunate loss of human life. With the exception of the agriculture publications, one aspect of news coverage that often goes untold is the loss of crops and livestock that occurs in conjunction with these events.

Everyone needs food for survival, and we all expect to be able to go to the grocery store and buy whatever we need. These drastic weather occurrences across our country not only create havoc in our towns and cities and create difficulties for travel, but they also have a dramatic effect on the psyche of the very people that are producing this food.

"Farmers work in acres not hours. Whether it be getting crop off the field before it rains or waiting for a cow to calve, farmers do not complete a day’s work until they are satisfied that their duties have been fulfilled for the day. When looking for a job, one would often consider the number of hours required to work, the salary, benefits and holidays. With a job as a farmer, one sacrifices all the flexibility and stability of a nine-to-five job. From an urban perspective, a career this demanding may seem crazy, but to agricultural enthusiasts, this is our business.”

With this choice of business, comes another aspect that many of us feel uncomfortable to talk about: MENTAL HEALTH. Farming is such a difficult job mentally because of the number of factors that are simply out of producers’ control.

The lack of moisture that plagued many areas of Alberta this summer quickly deteriorated into a winter wonderland long before most of the crops were harvested. The investment and optimism that are put into a crop each spring is ‘mind blowing,’ so much so that only a farmer can appreciate and understand its magnitude. Watching that investment unravel before their eyes due to uncontrollable factors, and the effects on farmers and families is no longer being ignored. The farming community, like everyone else, has embraced the discussion around mental health. It is real, it’s happening, it’s all around us and we need to talk about it. No one should feel like they are alone.

Terence Hochstein is executive director, Potato Growers of Alberta, based in Taber. This editorial column appeared in the September 28, 2018 newsletter edition.

At Visser Farms, Edmonton, Alberta, they persevered through a snow storm during September potato harvest.
New certified “Aircheck” system demonstrated in apple orchards

Orchard spray demonstrations on Aircheck certification and optimal spraying were recently organized by Vincent Philion, Institute for Research and Development in Agriculture (IRDA), Saint-Bruno-de-Montarville. Dr. Philion is well-known in Quebec apple circles for his work on apple scab and fire blight. In the last three years, he’s been in touch with German spray application specialist Dr. Peter Triloff on a new spraying approach.

“As you know, I wasn’t born a ‘nozzle head,’ but Triloff really enthusiastically convinced me to get onboard!” said Philion.

Distribution of liquid pesticides is always a challenge. Dr. Triloff experimented with a system that would “certify” the settings on a sprayer before it went into the field. His idea was to ensure small droplets and precise air distribution with the benefit of less pesticide waste and less energy used to apply the product. Through government funding???, Mr. Philion has been able to acquire five certified sprayers for each of the major apple growing regions in Quebec.

“These sprayers were delivered to the Port of Montreal in mid-October,” explained Philion. “We want each of the apple growers to compare their own sprayers with these new sprayers. With this practical experience, I think they will rethink the way they spray.”

Growers from Ontario joined Quebec counterparts for the spraying demonstrations from October 21 to 26 at the following farms: Verger Cœur de pomme, Oka; Verger Pierre Tremblay et fils, Mont-Saint-Grégoire; Cidrerie Milton Sainte-Cécile-de-Milton; Verger et Jardins Caouette S.E.N.C, Lamartine; Cidrerie Milton Grégoire; Cidrerie Milton Tremblay et fils, Mont-Saint-Philippe. In most blocks, the spraying demonstrated covered the following steps:

1) Improved air distribution of Aircheck certified sprayers is the starting point. Without good air distribution, it’s simply not advisable to follow the rest of the steps as it will lead to either bad coverage or drift if you try to compensate for bad coverage.

2) Determine the forward speed based on row width. This is easy to implement. Just adjust speed according to the block you’re spraying. Since pressure is maintained at a constant level to optimize the nozzles, volume sprayed (and thus dosage) varies per block. Wide trees get more liquid (slower driving speed) than narrow rows (higher driving speed).

3) Fan speed is set such that the spray stays in the row. The trick is to have a switch to turn off top nozzles in low tree blocks.

The only complication comes from tall vs small trees: you must have a switch to turn off top nozzles in low tree blocks.

All the grower has to do is select gear and rpm to match the speed of the block. In case of wind, you need another gear setting to maintain forward speed and fight wind with a higher fan speed. But the key is really not to overshoot.

In most blocks, the technique results in higher ground speed and lower fan speed. This reduces costs, noise, drift, higher deposition, etc.

The last workshop on October 26th had a demonstration of droplet deposition and distribution with UV spray dyes using different sprayer settings.
Artificial intelligence is still to be perfected as growers complain about data overload

KAREN DAVIDSON

Keynote speaker Darryn Keiller, CEO, Autogrow, opened the Canadian Greenhouse Conference on October 3. His question to the audience in Niagara Falls, Ontario revealed how much the industry has changed in the last year. “Who’s in greenhouse vegetables? Who’s in floral? Who’s in cannabis?” The fact that hands went up in all three sectors was indicative of the attendance for a stream of seminars on cannabis. The investment and research dollars in cannabis is a striking trend affecting access to labour and talent on the greenhouse vegetable side.

What is common to all sectors of the greenhouse industry is the burden of data. Despite ongoing progress in development of artificial intelligence, skepticism remains about return on investment.

One questioner said: “As growers, we are suffering from data overload. We need to see the relationships between data points.”

Keiller agreed: “It’s a journey. Only three companies in the world are working on this. It’s coming. We’re pushing out new iterations every six weeks. I agree, we need to make it useful.”

He added: “Can we predict when berries will be ready for harvest? Yield prediction is coming but it is not there yet. We need to have actionable data. We need to be at a place where the system will make recommendations.”

Organic growing container

A.M.A. Horticulture is launching a new organic growing container that will be available end of November 2018. Rick Bradt, manager director of the rebranded company, says that the container bottom is contoured so that water seeps to the four drainage holes. When the container is set on an existing greenhouse trough, water will drain into the trough. The polyethylene container holds 55 litres of organic, peat-based substrate.

“It’s certified for use in organic agriculture, meeting the Canadian organic regulations for minimum volume of soil per square meter,” explains Bradt. “For greenhouse operators who are growing organic produce – tomatoes, cucumbers, peppers, eggplant – they can switch out stonewool or cocoa slabs to this new container.

For more details, go to: www.amahort.com

New red bell pepper

Enza Zaden, family-owned Dutch breeding company, is introducing a new red bell pepper. It has a smooth wall, bright red colour and sizes well for bagging for the “stoplight” market. The stoplight market refers to packages of red, yellow and green peppers. Besides good taste, it has excellent shelf life.

“This red pepper is in the commercialization stage right now,” says Arden Nywening, Canadian manager. “It’s aimed for production in May/June 2019. We’ll have large volumes available for both the conventional and organic markets for 2019.”

An orange bell pepper, E20B.0261, is also in the launch phase.

For more details, go to: www.enzazaden.us

New sachet to control two-spotted spider mites

Koppert is introducing a new sachet of predatory mites, Phytoseiulus persimilis to control two-spotted spider mites in the greenhouse. Spidex Boost comes in boxes of 100 or 250 climate-resistant sachets. Each sachet contains 100 predatory mites.

Phytoseiulus persimilis feeds on all stages of spider mites, but has a preference for eggs. The predatory mites pierce the eggs and consume the contents. Adult Phytoseiulus persimilis also attacks adult spider mites but the smaller instars only feed on smaller prey in the early stages of development. The larvae do not eat. The predatory mite can only survive on two spotted spider mites (Tetranychus spp.).

For more details, go to: www.koppert.ca

Three new products spotted on the trade show floor

The Stokes Seeds team display the booth award for the plant material category for their 101-300 sq foot booth.
Red tape is top priority for Ontario government

GORDON STOCK

This column is to keep you informed about the key issues that OFVGA is tackling on behalf of Ontario’s fruit and vegetable farmers.

Red tape

In addition to the Ontario government’s aggressive agenda focusing on policy such as minimum wage and carbon pricing, one thing has been made clear: the current government wants to make doing business in Ontario easier by cutting regulatory “red tape.” In fact, officials are requesting industry let them know of government roadblocks reducing productivity or stopping expansion of operations so the identified issues can be addressed.

Please contact the OFVGA with your specific red-tape concerns so that we can compile and prioritize these issues and help the government get to work in addressing them.

Crop protection

OFVGA continues to monitor re-evaluation proposed and final decisions published by the Pest Management Regulatory Agency (PMRA). A revised mancozeb proposal was posted on October 5, and is open for public comments for 90 days. The PMRA is also undertaking an internal review of the re-evaluation process with the intention of making improvements. The OFVGA and the Canadian Horticultural Council are working together to develop a strategy to respond to the new mancozeb proposal and actively participate in improving how future re-evaluations are conducted. The OFVGA crop protection section committee met October 11 to discuss strategy and conditions from the 2018 growing season.

Labour

OFVGA continues to monitor the Ontario government’s activity on Bill 148. While public comments have been made regarding maintaining minimum wage at $14/hr, details about future increases, or whether other provisions (such as emergency leave) will be changed have yet to be announced.

The OFVGA is working with the Agri-Food Management Institute to offer a Labour Resources for Fruit and Vegetable Growers one-day program on November 29 in Grimsby. To learn more and to register, visit www.ofvga.org/events.

Environment and conservation

OFVGA representatives met with the Ontario Minister of Environment, Conservation and Parks, Rod Phillips on October 24. Topics included carbon pricing and the impact of environmental regulation on the competitiveness of the horticultural sector.

The OFVGA submitted comments to support the Ontario Government’s Bill 4, Cap and Trade Cancellation Act, indicating the negative impact the cap and trade program has had on the competitiveness of fruit and vegetable production in Ontario. The submission can be found at www.ofvga.org/news. With the cap and trade program being repealed, the OFVGA is now concerned about the possibility of the federal government’s carbon tax being applied in Ontario. While some fuels required for food production are exempt, energy required for heating and cooling are not. This is a big concern for greenhouse producers in particular. The OFVGA is working with the Ontario Greenhouse Vegetable Growers and the Canadian Horticultural Council to ensure current exemptions are expanded.

Safety nets

During a meeting with Ontario Minister of Agriculture, Food and Rural Affairs Ernie Hardeman, OFVGA representatives expressed interest in ensuring the second payment of the Edible Horticulture Support Program is delivered in April 2019 as committed by the previous government. To date, no commitments have been made.

Foodland Ontario

Concerns have been raised in recent months regarding the future of the Foodland Ontario program that is funded and managed by the Ontario Ministry of Agriculture, Food and Rural Affairs. A question was raised by the Official Opposition in the Legislature recently which was met by a positive response from Minister Hardeman indicating the government only intends to improve the program to ensure that it works for the people of Ontario.

Connecting with the Official Opposition

The OFVGA has been actively reaching out to members of the Official Opposition and will be meeting with key members to ensure they are aware of issues that affect fruit and vegetable farmers and can support the industry when key policies are being set in Queen’s Park.

For more information on any industry issues, please contact Gordon Stock, senior policy and government relations advisor, at gstock@ofvga.org or 519-763-6160, ext. 125. More detailed updates can also be found at www.ofvga.org/news.

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Meeting the new government part 2

The Ontario Fruit and Vegetable Growers’ Association had the privilege of representating horticultural producers in a roundtable meeting with Premier Doug Ford on September 18. Also present at the round table were agriculture minister Ernie Hardeman (OMAFRA) and Monte McNaughton, minister of infrastructure. The meeting was intimate with about 12 agriculture farm group leaders around the table each given a few minutes to speak to the premier and the group about their sector and respective challenges.

OFVGA had prepared messaging ahead of time so that Premier Ford would receive a clear message about the issues facing our sector and understand the government’s role in supporting producers. We spoke about improving the competitiveness of Ontario growers in an extremely competitive marketplace where our produce is sold alongside cheaper produce coming from countries with significant competitive advantages with regards to lower production cost, such as labour, and comparatively light regulatory burden. We explained how these issues make it increasingly difficult for Ontario growers to compete both here at home as well as in export markets.

We want the opportunity to be successful in our farm businesses and look to government to pave the way to keeping our farms viable. In 2016 approximately $1.5 billion worth of produce was exported out of Ontario adding significantly to the province’s economic activity showing the importance of being cost-of-production competitive to maintain our viability in export markets which makes up a large percentage of our market. Because we already had assurances from labour minister Scott on labour, we thanked the government for its action on Bill 148 including holding the minimum wage and focused on the “big picture” issues that government could impact. The first pillar for discussion was regulatory burden. Increasingly we are overwhelmed with an abundance of irrelevant paper-work, inspections to environment, employment standards etc. Farmers must fulfill regulatory requirements that fall under at least 10 ministries. It is our request that the Ministry of Agriculture, Food and Rural Affairs be our champion at the cabinet table and strive for smarter regulation of agriculture in Ontario. Too often we have been overlooked as government makes broad-brush regulations to regulate industry.

Agriculture becomes collateral damage. Together we hope to develop regulation that protects the farmer while simultaneously protecting the consumer, the environment, the worker and so on.

Our second pillar was to have a service-oriented government with a heavy focus on the civil service. It is my belief that this is our biggest challenge and thankfully government’s biggest challenge as well. Whenever farmers interact with government inspectors and officers it is often the experience that they are determined to find you out of bounds on something and when they do, you will be corrected possibly harshly even if you had not expressly broken any law.

It can feel like getting a speeding ticket for going one km/hour over the speed limit because they view it the same as going through a red light one per cent of the time. This example was explained to me by an officer a few years ago during an inspection! Ontario Produce producers want to be responsible citizens and good stewards of the land we farm so a new model needs to be developed that encourages growers to do the right thing instead of punishing them for minor infractions. It is time for a cultural change in government from a culture of enforcement to a culture of customer support. The government does not work for all, work for us.

Thirdly, government needs to help us encourage the consumer to buy Ontario-grown produce and to educate them as to why Ontario-grown is a smart choice. Continuing to support programs such as Foodland Ontario is an important part of educating the consumer about the good things that grow in Ontario and the benefits of making Ontario-grown produce a regular part of their food choices. It is important to keep Ontario farms viable to ensure the long-term sustainability of the province’s food supply.

Premier Ford was very attentive to the whole group and listened closely to all that was said. This government is eager to find collective wins in the agriculture sector and is committed to working with us to find ways to improve the overall outlook for Ontario farms.

On October 10th, OFVGA had a face-to-face meeting with agriculture minister Hardeman and had an opportunity to go into more detailed discussion of our issues and some possible solutions. Minister Hardeman encouraged us to help find ways to reduce regulatory burden (red tape). Growers all agree the red tape burden is significant, but I find that the potential solutions are somewhat elusive. We agreed that the process of re-licensing should be much easier if there has not been material changes on the farm. This could lead to a streamlining of processes for renewal of water taking permits, environmental compliance approvals (ECAs), or for live stock farms for their nutrient management plan. We also reviewed and agreed on the need for a customer service culture among the field officers. I hope that enforcement can take a practical turn and use the regulations to encourage important corrective actions as opposed to finding minor inconsistencies and blowing them out of proportion. This government will strive to make Ontario a better place to do business through smart regulation as opposed to focusing on any kind of financial support. This may become known as the “Red Tape Rebate.” I am confident that they understand the importance of our sector to the economy as well as growers’ role in providing Ontario-grown produce for the consumer.

OFVGA looks forward to working with the provincial government to find ways to give all of us the opportunity to be successful and to keep good things growing in Ontario.
While trying to make sense of the new trade agreement with the U.S. (and Mexico), a tweet from @greenMREEN aimed at Canadians farmers hit me between the eyes:

Canadians won’t buy from you because they feel sorry for you, they’ll buy from you because your products are better than imports. Given the timing, she meant it mainly as a message to supply-managed farmers. But her warning echoes across the industry, and it reveals what I suspect a lot of consumers think – that is, supply management is part of our culture, but that in itself is not driving their purchasing decisions.

The new trade deal requires thinking beyond the dollar sign. In some circles, that’s tough to do, given trade is so important to Canada, and that its future has been shaky since negotiations began.

Proponents say now there’s some clarity and, hopefully, stability in agricultural trade, so let’s get on with it. Certainly in horticulture, the fewer encumbrances to global trade, the better. And I believe consumers see it that way too. They want access to home-grown produce when they can get it. But when they can’t for seasonal reasons, they still want grocery stores to stock the assortment of fruits and vegetables they’re accustomed to.

But the new trade agreement, and the highly charged reaction to it by the supply managed sector, is not wholly about money. In large part, it’s about a culture change. And for many, that’s a tough pill to swallow.

Supply management is entrenched in Canadian farming. Few beyond Canada’s borders like it, even though they quietly envy it. And as farmers in non-supply managed countries such as the U.S. flounder in over production and low prices, they simultaneously look to Canada as a potential market to dump their oversupply. Most lately, those interests have convinced U.S. president Donald Trump that being able to export to Canada would help make America great again. It won’t -- the three-ish per cent of the dairy sector that the new trade agreement gives to the U.S. will barely make a dent in their oversupply. Still, to them, it’s a sign of hope.

But on our side of the border, to supply-managed producers, it’s a sign of despair, the first step of a slippery slope. A foreign country has succeeded in starting to chip away at changing Canadians’ farming culture, at how Canadians produce, manage and market some of their own food. So now what?

Well, the trade deal won’t be rescinded because supply-managed farmers are unhappy. So, those farmers need to step on the gas and convince consumers their dairy, eggs and poultry are better than imports. I suspect they’ll take a page from the fruit and vegetable sector and trumpet their virtues: fresh, safe, grown to the highest standards. And -- back to @greenMREEN’s point -- not just local, but better than imports.

To that end, a consumer campaign has been launched to drum up support for Canadian dairy, asking that processors clearly identify Canadian milk content and that retailers stock such products. That’s a first step. Now, answer the question – why is it better, and why should Canadians pay more for it?

The way we produce food is part of our culture. Supply managed farmers are a big part of it. But at the check-out counter, Canadians will be asking the same question about supply-managed commodities that they do of everything else: is it worth it?

Producers of all commodities must be able to say yes with substance, not platitudes. And they can – Canadian production lines up favourably with what many consumers want. Now, on to the challenge of keeping those Canadians informed, a challenge that will only intensify as trade opens up more and imports increase.
A new agricultural data hub will be launched by Statistics Canada on November 27, 2018. Currently, information such as production, trade, transport, employment are found in various locations across the agency’s website. The hub aims to be a one-stop-shop, making data more accessible to Canadians.

At the same time, StatCan is working to link the 2016 census of agriculture with the 2016 population census. It will also be available at the end of November, and it should contain interesting insights into the demographics of Canadian farmers and their households. StatCan says it’s an example of the kind of information ‘product’ it’s working toward, that provides users with more information than if the data is considered separately.

In the meantime, here are some facts and figures from the 2016 agriculture census that will be of interest to fruit and vegetable producers in Canada. StatCan reports that the area in tree fruits and nuts has dropped by about 50 per cent over the last 40 years, while acreage in berries and grapes more than quadrupled. Mechanized harvesting has allowed operations growing some fruit types, specifically berries, to reduce production costs and labour requirements associated with handpicking. Total fruit area reported in 2016 was 332,000 acres, an increase of seven per cent since 2011. The increase in total fruit area can be attributed to an increase in blueberry area. Blueberries accounted for more than half of the total fruit area in Canada (58.9%), an all-time high due to strong demand, particularly for exports. Both fresh and frozen blueberry exports have increased 45 per cent since 2011 to 132 million kilograms in 2016, with the U.S., Japan, and Germany as the largest export destinations.

Source: statcan.gc.ca
This month we will continue our tour across the country with a visit to Quebec. Every market has different characteristics and Quebec is certainly a unique market place for suppliers in the food industry. The language, the culture and the marketplace are all factors that make Quebec a distinct market to operate in. Quebec is home to more than eight million people, which means almost one-quarter of Canadians live in Quebec. This is a sizeable population spread across urban and rural markets. Close to half of the population live in Montreal (3,407,963) from the 2011 census. The second largest urban area being Quebec City (696,646) from the 2011 census.

Consumers in Quebec do have different tastes and expectations. With the northern European influence, consumers purchase products that are used in traditional French Canadian cooking. Many of these, such as tourtiere, pea soup and poutine are a real treat when visiting the market. There are differences in the produce shops in Quebec as well. Items popular in French cooking such as shallots and leeks sell more and apple is a very popular juice, dominating many of these, such as tourtiere, pea soup and poutine are a real treat when visiting the market. There are differences in the produce shops in Quebec as well. Items popular in French cooking such as shallots and leeks sell more and apple is a very popular juice, dominating many of these, such as tourtiere, pea soup and poutine.

Customers influence the buying decision

All of the national food retailers have a presence in Quebec. Although they all operate in the market, only Metro has its roots in the province. Loblaw purchased Provigo in the late nineties and Sobeys’ IGA stores were part of the Oshawa acquisition in the late nineties. Walmart and Costco have also opened a number of Supercenters in the province, after focusing in other Canadian markets. Some labour issues in selected stores were a challenge but they seem to be in the past. Walmart operates the Quebec stores from its national office in Mississauga, however as in many Walmart markets, stores do have some autonomy to ensure the needs of consumers are met in the market.

Costco has 21 warehouses in Quebec, located between Quebec City and Montreal. The Quebec Costco stores are operated out of the Ottawa Costco office. These warehouses offer similar assortments to warehouses in other regions. Many other smaller retailers, serviced by different wholesale salesmen, also service Quebec consumers. The diversity of the offering is evident, even when you review the category where there is demand so there are fewer reasons to bring products in. The three major food retailers have distribution facilities in Quebec so the ensures local producers have access to the stores serviced by these networks. According to the Quebec Produce Marketing Association the province produces 33 per cent of field-harvested vegetables and 29 per cent of field-harvested fruit in Canada.

In these categories Quebec growers are over-developed relative to the proportion of total Canadian population. In the greenhouse fruit and vegetable category, Quebec is under-developed with only four per cent of national production.

The Atlantic Market

Quebec is the biggest market, outside Ontario and it operates as a unique market. Consumers are looking for a different assortment and shopping experience, which warrants some of the national retailers dedicating resources to Quebec as opposed to just making it part of a national program.

For the complete analysis, visit www.thegrower.org

Peter Chapman is a retail consultant, professional speaker and the author of A la Cart-A supplier’s 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
Sometimes a customer wants something RIGHT NOW. As challenging as this can be, there is a transport option that can possibly accommodate a quicker-than-normal timeframe or a location that is outside the norm for your business. Here is some of the basic information needed to help navigate the process of shipping your goods by air freight.

The definition of air cargo is any property or goods carried in an aircraft, this includes air freight, air express and airmail.

Advantages
- Fast
- Reliable timeframes
- Virtually unlimited destinations
- High levels of security mean reduced risk for theft/damages
- Easy to track the status of flights and goods

Disadvantages
- Cost
- Size limitations
- Bad weather delays, cancelled flights etc.

Temperature controlled goods
There are two typical options for refrigerated air freight. Envirotainers are Unit Load Devices (ULD) equipped with a motor and batteries and a dry ice compartment that maintains temperatures for up to 72 hours. Accutemps are equipped with a compressor and batteries that will maintain temperatures for up to 100 hours. Since they do not involve the use of dry ice (considered a hazardous material) these units can be loaded on any type of plane including passenger planes.

Three options for air freight
Next Flight Out - As the name implies, the freight is shipped out as soon as a flight is available. Also referred to as expedited. This is the fastest option but, of course the most expensive.

Consolidated Shipping - This option combines goods from multiple shippers to ship together. Typically this is on a set schedule. Combining products and moving on consistent cycles helps to secure more economical rates.

Deferred - This is the slowest, least reliable option. Goods are held until there is space available on a flight -- think standby but for goods. This does have the greatest cost savings for freight that does not have to arrive on a set schedule.

Cost structures
For pricing, size is not as much a concern as weight (unless super oversized). Air carriers use volumetric weight for pricing which is the weight of the package at the minimum density accepted by the carrier, also known as dimensional weight. This is as opposed to actual weight, or gross weight. The most economical rates can be obtained if a Unit Load Device (ULD) can be filled or nearly filled.

Other additional fees
Fuel Surcharge Charge - Are fees for fluctuating fuel costs, it protects the transport companies from the volatility of fuel prices.

Security Surcharges - Are fees for security measures required at airports. This applies to the screenings and handling processes that certain goods must undergo depending on the product and the airport location.

Airline Terminal Handling Fees - This applies to all air shipments and covers the costs associated with handling cargo at both the origin and destination - may be included in the air freight fee or as a separate line item.

Customs Clearance Fees - This applies to any goods crossing the border and is for preparation of the documents required for customs clearance into the receiving country. If a company has a customs broker already, it should ensure that these charges are not on its invoice.

Associated Trucking Fees - To get the goods to or from the airport, a truck would pick up or drop off. The cost of this could be listed separately or be included in a door to door quote.

Cargo Insurance - Generally arranged by a freight forwarder, it covers the cargo should there be damage or loss.

As challenging as the last minute or unorthodox request can be, knowing your transport options and having basic knowledge of what is required can really take your business to the next level. Is airfreight something you have used in the past? Would you use it now?
FOCUS: SEED & ROOTSTOCK

KAREN DAVIDSON

While EZ Grow Farms has been propagating strawberries for the southern U.S. market for 20 years, practices have been modernized. Dusty Zamecnik, production manager, Langton, Ontario, outlined how strawberry plants are established in greenhouse and high-tunnel substrate systems at the October 3 Canadian Greenhouse Conference in Niagara Falls, Ontario.

“The Europeans have been perfecting these systems, however the confidence of Canadian growers has been elevated in propagation and growing strawberries in the last three years,” said Zamecnik. “We need cooperation between the nursery and the grower.”

Many advancements have been made in growing techniques in both propagation and production fronts. A “Canadian” program is beginning to be understood. The program includes production plant preparation, plug plant dynamics, execution and managing client expectations in terms of ordering and delivery.

EZ Grow Farms is focusing on plug production because there is more uniformity. The mortality rate is one to two per cent. A Cravo greenhouse was built in 2017 for plant production and hardening off of plants. It takes multiple months from vertical propagation to get to first tip.

The plugs are made available in cells sized 50cc, 140cc and 250cc. One side of the pot is flat so that the runners grow away from the flat side. Each of the three sizes has its benefits for different customers.

The 50cc plug contains a compact plant with nominal room for crown development. It’s the lowest-cost plant for the Florida, Georgia and Mexico markets because those growers have to consider trucking costs.

The 140cc plant contains the ideal plant density with adequate room for root development in its time at the nursery. It has a thicker caliber crown and great value for the plant.

The 250cc plant ensures a large area for root development with great density. It’s the industry standard for June-bearing plants.

Winter greenhouse planting must be planned carefully. For June-bearing strawberries, the plugs must be prepared the third week of August. For ever-bearing strawberries, the plugs must be prepared the first or second week of September.

For high-tunnel, raised substrate shoulder production, planting takes place in mid-April for both June-bearing and ever-bearing strawberries.

Planting depth is key. Choking of the crown is a common mistake during planting. “Your workers must be shown correctly and the importance of this action must be stressed,” said Zamecnik. “If you bury the crown, the plant will have an opening for diseases and production will be sacrificed.”

How to manage ever-bearing blooms? There are two trains of thought said Zamecnik. The first practice is to leave blooms on from nursery in order to gain initial production with the knowledge that uniformity of berries will be sacrificed. The second practice, which is becoming the industry standard in Canada, is to remove blooms at planting. Initial production will be sacrificed but the gains in berry uniformity will pay.

“Strawberry plants are baby makers – whether through runners, berries or seeds,” said Zamecnik. “We are planting in March to get more daughters to harvest June 1.”

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Dusty Zamecnik offers a tour of the new Cravo greenhouse for plant production and hardening off. Photo by Glenn Lowson.
Low-cost virus testing now available to grape growers

Viral diseases can be difficult to diagnose based solely on symptoms. In this slide by Dr. Baozhong Meng, he shows how similar grape leaves look although they suffer from very different causes.

KAREN DAVIDSON

Viral diseases in grapes can be difficult to diagnose based solely on symptoms. Is that red splotchy leaf a sign of herbicide injury or something more pervasive? Experienced grape growers can’t be sure without laboratory testing.

That’s why there’s good news in a low-cost virus testing service offered by Brock University’s Cool Climate Oenology and Viticulture Institute (CCOVI). With prices as low as $25 per sample to test for a single virus and a high of $112 per sample for eight viruses, the service is affordable.

“Virus testing is not unique to Ontario,” says Debbie Inglis, director, CCOVI. “But we’re proud to offer this service to grape growers or nurseries for a wide range of grapevine-infecting, non-regulated viruses including but not limited to:

• Grapevine Red Blotch Virus
• Grapevine leafroll-associated virus 3
• Grapevine Pinot Gris Virus
• Grapevine Fan Leaf Virus
• Grapevine leafroll-associated virus 1
• Grapevine leafroll-associated virus 2
• Grapevine leafroll-associated virus 4
• Grapevine ruspestris stem pitting-associated virus

Grapevines are susceptible to many virus and virus-like agents that can negatively impact the health and quality of grapevine and its products. Detection is a first-step in the management of grapevine virus diseases. Leafroll-associated virus 3 and red blotch are the viruses of most concern.

In a survey of Ontario vineyards in 2017, there were 14 viruses detected in 1,500 samples according to Dr. Baozhong Meng, Department of Molecular and Cellular Biology, University of Guelph. In a slide presentation of March 2018, he showed the seasonal progression of disease symptoms of grapevine leafroll virus in Cabernet Franc. According to OMAFRA literature, leafroll-associated virus 3 has no symptoms in the spring. As the season progresses, diseased leaves turn reddish in red varieties or yellowish in white varieties. They also thicken and become brittle. By late summer, the leaves roll downward starting at the base of shoots. The leaf blade may be bright yellow or red, but the main veins remain green. The fruit clusters are smaller than normal and yields suffer.

Almost the same symptoms are evident with red blotch virus. No visible difference is observed between diseased and healthy vines in the spring. However, red blotches start to develop in mid- to late-summer, with most of the leaf blade showing red. Shades can vary from crimson to purple on red varieties, while symptoms are less obvious on white varieties. The older leaves at the base of the canopy are the first to be affected. Late in the season, heavily symptomatic leaves often fall prematurely.

Grape growers experience loss in smaller than normal clusters, with up to 30 to 50 per cent drops in yield. The grapes often mature late and irregularly. In addition, the grapes will often test low in sugar (25-50% reduction), soluble solids and have poor pigmentation.

Testing is usually conducted on leaf samples in the fall, but cane samples can be tested throughout the winter. Thousands of samples are expected, says Inglis, to meet industry and research needs.

CCOVI’s virus testing is done in partnership with Ontario Grape and Wine Research Inc. This laboratory work will also support a larger effort now underway, the Canadian Grape and Wine Science Cluster. The $8.4 million in federal funds will include university researchers, grape growers and industry partners in Ontario, British Columbia, Quebec and Nova Scotia.

The cluster will be overseen by the national grape and wine not-for-profit, Canadian Grapevine Certification Network (CGCN) which is working to advance the $9-billion industry with a sustainable supply of quality grapevine material.
ONION TRAVERSE
Mid-season onion that stands out thanks to its high quality. Its round shape, small neck and the uniformity of the crop are remarkable. Its slightly larger size makes it the ideal candidate for high yields. Long-term storage.
Maturity: 90 days.

CARROT B5136
Carrot-Jumbo type with high quality roots, in both mineral and muck soils. High uniformity of straight and long roots, of a perfect shape!

CARROT SY7627
New variety for carrot Jumbo from Seminis. A complement to SV2284 and Enterprise, offering a higher rate of jumbo carrots. For both muck and mineral soils.

ONION CATSKILL
Late maturity variety with large size potential. Attractive bulb with a nice skin colour. Medium to long-term storage.
Maturity: 108 days

Customer Service
514 322-2275 | 604 561-3693
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ONION RED MOUNTAIN
Earlier Bedwing type, similar in colour, size and quality. Stood out in the 2018 trials for its long-term storage.
Maturity: 115 days

SWEET CORN NECTAR
The second Quadseed introduction from Crookshank. Strong emergence, good tip fill and husk protection, sturdy plant as well as a sweet flavor and a creamy texture.
Maturity: 72 days

Proud of our roots since 1928
norseco.com
FOCUS: SEED & ROOTSTOCK

Summerland Varieties Corporation welcomes new cherry rootstock

KAREN DAVIDSON

British Columbia’s cherry industry continues to thrive with 4,000 acres under cultivation. The Summerland Varieties Corporation (SVC), a wholly-owned subsidiary of the B.C. Fruit Growers’ Association, has been a key sparkplug for that success. It manages intellectual property rights for the breeders of new plant varieties.

To date, almost all of the cherry trees grafted onto Mazzard rootstock to suit the glacial soils of the Okanagan Valley. Here’s some context from the Washington State University Tree Fruit website.

All commercial cherry trees are made up of two parts: the upper fruiting portion (grafted or budded scion wood), and the lower portion (the rootstock). It’s fairly evident that the majority of breeding efforts were directed towards fruit improvement. Over the past century, breeding programs have concentrated mainly on achieving improved characteristics such as yield, taste, fruit size, fruit firmness, fruit colour, precocity, and resistance to fruit cracking and disease.

“In contrast, rootstock development has only recently received the attention it deserves. It is believed that the Mazzard selections are the oldest known sweet cherry rootstock dating back to the early Greeks and Romans. And this is still the most widely used rootstock for sweet cherry throughout the Pacific Northwest. Many of the newer rootstocks are described using Mazzard as a standard for comparison.”

Recently, several new rootstocks have gained prominence for their improved attributes. Many of these are semi-dwarfing. Some of these may impart some disease resistance, induce precocity (bearing younger, and lend themselves to use in high-density plantings).

With this background, it’s easy to understand why Nick Ibuki is excited about three new rootstocks coming from Germany for the 2019 season. As the business development manager for SVC, he’s expecting positive development has only recently received the attention it deserves.

Summerland.”

Most recently, growers have been using Krymsk, Gisela and Maxima 14 rootstocks from Europe. Gisela can be challenging to grow in the hot conditions of B.C.’s interior. For growers, the challenge with dwarfing rootstocks is to get the right balance of leaves to fruit. Too much fruit means small fruit.

Here are descriptions of Weigi 1, 2 and 3 rootstocks according to the Weigi.com website:

Weigi 1 (see photo)

• Origin: cross between a selection of Giessen and Weirroot
• Vigour: approx. 10 per cent stronger than Gisela 5
• Productivity/yield per tree and crown volume: higher than with Gisela 5 with bigger fruit size
• Compatibility: excellent compatibility with all current cherry varieties; usually smooth graft unions
• Good adaptability to poor soils
• Good alternative to slow-growing, highly productive varieties
• Deep roots and hence less susceptible to stress during arid periods
• No influence on the blooming period (florescence) and/or harvest period
• Generally no formation of root suckers; only sporadic appearance possible during aging
• Excellent anchorage and stability of the trees
• Perfectly uniform vigour with all test sites
• Good results observed during replanting

Weigi 3

• Origin: cross between a selection of Giessen and Weirroot
• Vigour: identical to Gisela 5 on very fertile soils; on poor soils, the vigour is even slightly better than with Gisela 5
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New cherry rootstock selection of Giessen and Weirroot.

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KAREN DAVIDSON

A new variety does not stand alone. That’s a piece of wisdom from retired potato breeder Dr. Dan Ronis. He spent 25 years working for North Dakota State University, McCain Foods and Frito-Lay. He shared his learnings at the Elora Research Station Potato Demonstration Day in August 2018.

The laborious process of breeding potatoes reveals why new varieties don’t come to market more quickly. It’s because a breeder needs the new variety to be better than existing varieties for at least one key trait and no worse for all other traits.

“It’s like putting together a baseball team,” says Ronis. “Shepody is the lead-off hitter. Ranger Russets are an early-storing potato. Umatillas are a good variety for mid-storage. Burbanks fill out the game card at season’s end.”

Each variety has a specific role in the value chain. Varieties for table use, processing, or specialty use have different end markets and so the specifications for various traits differ. At chip companies for instance, the objective is for high dry matter and great storage colour. For table red-skinned varieties the appearance, skin colour, and how well the colour holds up in storage are most important.

All potato varieties have one or more weaknesses, he continues. These should become apparent during the testing period which begins with small-plot scientific trials and advances to larger five- to 10-acre trials and to factory trials for processing varieties. The field yields and the factory testing, when combined, reveal whether there’s enough to go forward with commercialization.

A breeder must perform a balancing act when making decisions:

“Can I mitigate the weaknesses enough to make this variety a commercial success? Can I use cooler temperature settings to alleviate rotting in storage? Can I lower speeds on the elevator line to reduce bruising? These are the questions a breeder must answer,” says Ronis. He brought forward several varieties which looked extremely promising only to have defects such as high sunburn or high black-spot bruise make commercialization not feasible.

When Ronis looks back at several decades of potato breeding, he points out how hard it is to pick winners. Shepody, for example, filled a key role in the 1980s because it filled a niche for planting a month earlier and to extend their season. Another example, Snowden, filled a role in the 1990s. It allowed for a longer storage period without a build-up of sugars so that it wouldn’t “fry dark.” Its chip colour made it a successful variety and allowed processors to extend the storage season.

Unlike many other crops, potatoes have different traits used in a vertically integrated chain. The traits required for each of these customers are different. For processors, it’s pounds in/pounds out. A grower could have high field yields, but if there’s too much waste in the plant, the variety is not successful.

For growers, the advice is to be cautious of small-plot data for new varieties. The variety may not have been “optimized” with real-life experience in harvesting, handling and storage. A variety that yields 20 tons/acre but measures only 15 tons out at the factory is not as good as 18 tons/acre with 17 tons out.
Innovation in a bind: European ruling on CRISPR-Cas has major consequences

ALBERT SIKKEMA

Research assignments that are being withdrawn, companies that are deciding to relocate their R&D departments outside Europe — it is gradually becoming clear that the decision by the European Court of Justice to treat CRISPR-Cas as a form of genetic modification is having far-reaching consequences, including for Wageningen University and Research (WUR).

This past summer, the European Court of Justice ruled that the technique CRISPR-Cas, which allows very precise changes to be made to the DNA of bacteria, plants and animals, should fall under the strict laws for genetically modified organisms (GMOs). This means that crops that were improved using CRISPR-Cas have to undergo a time-consuming and expensive approval procedure before they can be grown or traded. In countries such as the U.S. and Japan, CRISPR-Cas is not covered by that GMO procedure so plant breeders can now develop and market new varieties much faster there. The court’s decision will put the Dutch plant breeding sector at a disadvantage, concludes Ernst van den Ende, director of the Plant Sciences Group.

Mutagenesis

Plant breeders can use CRISPR-Cas to make precise changes in the DNA. ‘That is an improvement on classic mutagenesis techniques in which untargeted changes are made in the DNA using chemical reactions or irradiation, as an organism that has been given the desired mutations by these techniques may also have many other random mutations. The classic forms of mutagenesis are exempt from the strict European GMO laws because experience has shown that the techniques are not harmful to health or the environment. Many researchers had hoped that CRISPR-Cas — which is much more precise, after all — would also be exempted from the GMO rules. But the European Court judged that the safety of this new technique has not yet been established. That is why it is still subject to the GMO legislation."

Disappointed

Plant breeding companies are drawing their own conclusions. The largest Dutch trader in seed potatoes, HZPC, is relocating its research on CRISPR-Cas outside the EU, the trade journal Boerderij announced this past summer. HZPC director Gerard Backx was very disappointed in the ruling by the European Court. ‘This means we won’t be able to be as innovative as we would like for our European potato growers. I really regret this. We’ll have to move some of our research outside Europe, which will only benefit non-European growers.’

The German plant breeding company KWS is also taking measures. KWS Saat, which mainly breeds maize, sugar beets, cereals and potatoes, will move part of its R&D from Europe to the U.S., as Harold Vester, head of the Cereals department, recently told Resource.

Other plant breeding companies are more cautious. ‘We respect the ruling of the European Court of Justice and won’t be making use of CRISPR-Cas in the development of our vegetable varieties,’ says Anneke van de Kamp, PR manager at the vegetable breeding company Rijk Zwaan. ‘We never practised GMO breeding before and that will remain the case. Though we do use CRISPR-Cas in our research.’

Split into two

The position expressed by Van de Kamp is shared by other vegetable breeding companies. They don’t want to be associated with GMOs because of public opinion and are therefore not rejecting the European Court’s judgment out of hand. This is also because it is relatively easy for vegetable breeders to develop new varieties using the standard breeding techniques as most vegetables have rather simple genomes. They can use CRISPR-Cas to test new or improved properties in their research departments. If that works, they can replicate their findings using the standard techniques.

‘R&D is being split into two,’ says a recruiter for a breeding company who wishes to remain anonymous. ‘The research can be done anywhere, including in Europe. The development is going to other countries. That’s already happening. You don’t notice it because all the breeding companies typically have multiple R&D centres in Europe, Asia and the U.S. They’re shifting their R&D investments to non-European countries; those discussions are going on now.’

Consequences for Wageningen University and Research

Plant Sciences Group director Ernst van den Ende is already seeing that this shift is having an impact on WUR. ‘A few companies have withdrawn their CRISPR-Cas research assignments in the past few months.’ He is not prepared to say which companies or how much money is involved. ‘There are also discussions in the Horticulture and Propagation Materials top sector about whether breeding companies will now develop and market new varieties, including in Europe. The research can be done anywhere, including in Europe. The trade journal Boerderij announced this past summer. HZPC director Gerard Backx was very disappointed in the ruling by the European Court. ‘This means we won’t be able to be as innovative as we would like for our European potato growers. I really regret this. We’ll have to move some of our research outside Europe, which will only benefit non-European growers.’

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Travis Banks knows the pressure of a deadline. The research scientist, who’s overseeing Vineland’s program to enhance flavour and production traits in greenhouse tomatoes, is feeling it right now as the target date nears to bring a new, tastier hybrid tomato-on-the-vine (TOV) to market by 2022.

That might sound like all the time in the world, but it’s not when there are six candidate tomatoes that need to be trialled in Ontario greenhouses and whittled down to one winner — their performance scrupulously evaluated in the process.

“Is it’s a very, very ambitious timeline,” Banks said. “It’s an ambitious timeline just for getting product to people. It’s also ambitious in that it only works if, in the first trialling of hybrids, we find something that works better than what’s already on the market.”

And therein lies Banks’ and the tomato breeding program’s raison d’être: to develop new varieties of TOVs for consumers looking for more flavourful options beyond what’s currently available.

Sixty per cent of consumers say they like the most commonly available greenhouse tomatoes sold in grocery stores, but that leaves a good number hungry for something different.

In the process of filling that void, Vineland scientists are also tackling resistance to pepino mosaic (a disease that makes tomatoes blotchy), bacterial canker and other afflictions that can cause headaches for growers.

The program is a partnership with Ontario Greenhouse Vegetable Growers (OGVG), who have helped identify growers willing to trial Vineland’s top TOV hybrids for the first time this year to evaluate their performance.

“Every grower has their own production practices and these subtleties can impact how tomatoes grow in their hands,” Banks explained. “The hope is what we’re asking growers to produce will do well but we’re also hoping they’ll taste great.”

It’s expected the six varieties will be narrowed to three by the end of the 2018 growing season, then down to two by 2019. By 2020, Banks anticipates that three years of OGVG growing data will point to a clear winner.

The whole story, researchers at Vineland are still continuing their breeding work to identify new tomatoes that will go through the same trialling process, improving upon what they’ve already done.

This year is an important step and the wheel has to keep running to keep the pipeline full,” Banks said. “We have a lot of activity going on around tomatoes. Right now nobody else in the world is breeding new greenhouse tomatoes for the Ontario market.”

That doesn’t mean only Ontario growers stand to benefit from the work happening here and Vineland’s tomato breeding program is generating interest from unexpected places, including the Yukon and Alberta.

Finding a way to get the tomato seed to market is the next critical step after growing trials, and it could be the most challenging. There are no greenhouse seed production companies in Canada. Vineland’s business development team will determine the tomato’s best path to market.

“You have to find a company that can produce a lot of seed. Then you have to treat that seed and do quality assurance on it. Then you have to package the seed, market it and distribute it,” Banks explained. “We have an aggressive target of getting seed to market and the entire team is focused on this goal. To meet it we have to anticipate and manage problems coming our way. So far, so good.”

Reprinted courtesy of the 2018-2019 Innovation Report

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Focus: Seed & Rootstock

**Testing, testing, TOV**

Travis Banks knows the pressure of a deadline.

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**New seed varieties for 2019**

**NORSECO SEEDS**

*Sweet corn Solstice* - Earlier Nirvana type. Same extra tender and sweet taste. Strong emergence and vigour. Excellent tip fill. Maturity: 67 days.


*B3158* - Early cabbage, Cambria type. Dark blush heads, well wrapped, very heavy, of an excellent quality. Short core. Good field holding ability. Maturity: 55 days.

**RUSS SEEDS**

*Bayhorse Gold* has quickly become the favourite pumpkin for growers selling 40 count bins. This 15 to 20 pound pumpkin variety, from Rupp, provides growers with intermediate resistance to powdery mildew. Bayhorse Gold is uniform, slightly elevated fruit with strikingly gorgeous dark orange colouration and elongated black handles.

*Anthem XR II* is the newest Performance Series variety from Seminis. Growers will enjoy all the benefits of Anthem XR and Anthem II, combined in one hybrid. Anthem XR II is a 74 day, bi-color that brings the rust protection offered by Anthem XR, in tandem with Anthem II’s Roundup and BT Performance Series traits.

*Ninja S10* with X10R is a widely adapted variety, from Sakata, that is well suited for growing in areas where bacterial leaf spot is a concern. It provides growers with very high yields of extra-large and jumbo fruit with good quality. Fruit are firm, turning from a glossy dark green to a beautiful mature red.

**SIEGERS SEEDS**

*Traverse onions. Strong top and upright plant habit. Uniform size and shape. Northern storage type.* Relative Days (DS): Type Size Shape Skin Colour. Storage Resistance/Tolerance: 105 Hybrid Long Day. Yellow onion medium to large globe dark brown long Foc(IR), Pt(IR)

*Mercer red pepper. Well suited for production in the northeast where Phytophthora Capsici is a problem.* Plants are strong with good cover and produce high-quality large to extra-large, smooth fruit.

*Seminole Sweet XR* sweet corn. High quality shipper that combines high yields with superior flavour. Dark-green husk package and good husk protection to go along with a clean, strong plant and excellent kernel flavour.
New seed varieties for 2019

SEEDWAY SEEDS

Red Opal – 84-day triploid seedless watermelon. Red Opal has shown itself to be a very prolific seedless watermelon with a concentrated set of fruit. The light green background with a medium, dark-green stripe contrasts well with the bright red internal flesh colour. 15-19 lbs.

Coastal – 77-day bicolour sweet corn Sh2 – SEEDWAY EXCLUSIVE. High quality shipper ear with a short shank and sturdy plant. Great tipfill. HR: Ps (Rp1G)


SEMINOVA SEEDS


Ridgeline: Globe shape, dark skin bulbs with great shape uniformity and very high percentage of jumbo sized onions. Intermediate tolerance to the pink root and Fusarium wilt. Great root system.

Congama: Excellent storage cabbage with an upright growth habit. It’s easy to clean and process after storage. Very reliable and vigorous. Long term storage. HRm Foc 1. Weighs 3.5 kg.

STOKES SEEDS

The bell pepper product line stands out with the introduction of Skyhawk, an early maturity variety with smooth, attractive fruit, high yield potential, mid-green colour and a blocky shape. Disease resistance protects the yield potential, including resistance to Bacterial Leaf Spot races 1-10. Fruit size is consistently extra-large to jumbo.

New for bush green beans in LaSalle. It’s a 54-day high-quality, easy-harvest, 4-sieve bean with high yield potential, upright plants and good heat tolerance. Disease resistance includes: Halo Blight, Bean Common Mosaic Virus, Bacterial Brown Spot and Common/Fuscous Blight.

2019 will be an exciting year for onions. Growers have several new options to consider including Peepe. It’s a 110-day yellow with very good size, quality root system and a hard globe. It has the ability to produce high yields and the potential for long-term storage.
To evaluate the best harvest schedule, high-tunnel strawberries were harvested every one, two or three days. The number of larvae from each treatment was counted after conducting a salt test (to learn how to do your own salt test, visit our video on YouTube: Monitoring for Spotted Wing Drosophila Using Salt Water Float Tests).

This study found significantly fewer SWD eggs and larvae when the raspberries were harvested every day or every other day, compared to every three days. The highest yields were achieved in plots harvested every two days. This may be due to the fact that berries can continue to gain weight after reaching a marketable stage, and two- and three-day harvest schedules allow for this weight gain (Leach et al., 2017).

While testing different harvest schedules, they also monitored the amount of time spent harvesting each plot, and the harvest rate was highest in the raspberries harvested every two days. Note that this does not include time transporting the berries from the field or sorting through the berries, so growers may find different results depending on their own system. A few other factors to consider when comparing different harvest schedules is the amount of time spent sorting out unmarketable fruit, potential reductions in insecticide applications, fruit quality, and culled fruit management.

Removing old and overripe fruit from the field is an important part of managing for SWD. If left in the field, fruit is a resource for SWD, and will allow the population to build in the field. However, recommendations are needed on what to do with the fruit once it is removed. To evaluate how to best dispose of this fruit, clear, white and black plastic bags were used to bag unmarketable raspberries. The different bags were placed in the sun, and fruit was collected from the bags after one, four, eight, or 30 hours, and the number of SWD that emerged was counted. The temperature in the bags was the highest in the clear plastic bags compared to the white and black bags and an open container, with the internal temperature of the clear plastic bag reaching 30°C for more than five hours a day. The thermal limit for SWD larvae is 30°C, so this temperature has to be reached inside the bags in order to stop SWD development. For all of these treatments, one to four hours was not enough to kill enough larvae, as similar numbers of SWD emerged from these treatments compared to an open container. However, after eight hours, the black and clear bags had fewer SWD emergence, and after 32 hours all three treatments had similar success, with no almost SWD emerging from the black, white or clear plastic bags. This study demonstrates the benefit of harvesting every one to two days for SWD management, and how to manage culled fruit. Based on the results from Leach et al. (2017), growers should follow these recommendations:

• Use a combination of IPM tactics, including regular insecticide applications
• Harvest every day or every two days
• Keep culled fruit in a sealed container for two to three days in direct sun.

While growers should not rely on only tight harvest schedules or crop sanitation, growers can incorporate these management practices into their IPM program, and help reduce reliance on chemical management alone. Alternative, non-chemical management practices will also help reduce the risk of insecticide resistance, and contribute to a more sustainable SWD management program (Leach et al., 2017).

**Ontario Berry News**

**Alternative management practices for Spotted Wing Drosophila**

**ERICA PATE**

A recent study from Kirkpatrick et al. (2018) from Michigan State University evaluated new trap designs for spotted wing drosophila (SWD) monitoring. This study compared dry, sticky panel traps to liquid, deli-cup traps. In Ontario, OMAFRA has been using liquid deli-cup traps to monitor for SWD for the past few years. While this trap is effective at catching male and female SWD, it is very time-consuming and impractical for growers to use for their own on-farm monitoring. A new monitoring system is needed that is quick, inexpensive, and reliable for growers to conduct their own monitoring.

The study compared deli-cup traps, red panel traps, yellow panel traps, and red sphere traps, in combination with a lure, in cherry orchards and raspberry high-tunnels. Kirkpatrick et al. (2018) found the red panel and red sphere traps to be more effective than the liquid traps, and that traps with a visual cue were better monitoring tools. Other studies have compared red, green, white, and yellow panel traps and liquid traps, in combination with different lures to attract SWD.

It is important for growers to monitor for SWD every year, as SWD emergence can vary by year, as we saw in 2018 compared to 2017. This past summer SWD did not emerge until the end of summer-fruited raspberry harvest; monitoring for SWD could have saved growers from one or two unnecessary insecticide applications. We conducted a similar project in Ontario to the Michigan study in hopes of finding new, easy traps that can be used here. We wanted to gain experience with the different trapping systems and to evaluate their efficacy in Ontario. We used two different lures with three different traps: yellow panel traps, red panel traps, and our standard liquid deli-cup traps.

Mark your calendars for the berry session at the 2019 Ontario Fruit and Vegetable Convention and Berry Growers of Ontario annual meeting, February 19th–20th to hear about our experiences with these traps this past summer, and how to use these traps on your farm for efficient, quick and easy monitoring.


**Orlando, leader in winter strawberry production, is venue for 2019 meetings**

If you’re a strawberry grower, mark February 3–6, 2019 on your calendar. Those are the dates for this year’s North American Strawberry Symposium and the North American Strawberry Growers’ Association Conference. The venue is the Wyndam Orlando Resort, Orlando, Florida.

All members of the international strawberry community are invited to attend the 9th North American Strawberry Symposium (NASGA), a meeting of strawberry growers, researchers, and other industry members from around the globe, to be held in conjunction with the annual NASGA conference, Feb. 3-6, 2019 in Orlando, Florida. U.S. Florida is the U.S. leader in winter strawberry production and features a strong partnership between Florida strawberry producers and the University of Florida. This partnership is reflective of the purpose of this conference, which brings together growers and scientists worldwide to spur innovation.

The Symposium will kick off on Superbowl Sunday (Feb 3) with workshops in the afternoon, followed by a welcome reception “In The Red Zone.” Meet and greet strawberry friends while watching the game together on a big-screen TV, or in a quieter setting at the annual TV, or in a quieter setting with workshops and showcases, followed by a post-conference tour February 6. The tour will feature a 600-acre strawberry farm, a robotic harvester demonstration, and field research at the University of Florida Gulf Coast Research Systems, Strawberry Breeding Tools and Tips, Alternatives to Fumigation, Weed Management Approaches, Insect and Mite Management, Disease Management: From Nursery to Fruit Production Fields.

Registration: On-line registration or mail-in form, and more program details (abstract deadlines, keynote speakers, etc.) and opportunities for industry, organization and agency sponsorship on the NASGA website: www.nasga.org/.

Please spread the word to fellow researchers and strawberry growers.
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### Coming up in December

#### Soil Health and Biostimulants
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 tolerate harsh environmental conditions. This is a first-time editorial package dedicated solely to this new product category. Don’t miss out.

**Deadline**: November 16, 2018

### Garlic Seed
- **Title**: Music Garlic Seed For Sale
- **Details**: 7th year clean seed program. Tested by University of Guelph and found to be bulb and stem nematode free.

**Contact**: Jennalee Farms for pricing
- **Email**: jennyallossery@hotmail.com
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**RESERVE SPACE**
Progress on several fronts in minor use

Recent announcements at PMRA

Two announcements regarding the Pest Management Regulatory Agency (PMRA) were made recently from Ottawa. As a branch of Health Canada, the PMRA is the federal agency responsible for the regulation of pesticides in Canada.

Re-Evaluation Program Review

The Pest Control Products Act requires that the PMRA perform re-evaluation of each registered crop protection material – conventional or biological – every 15 years to determine if uses are acceptable for current standards. The PMRA is initiating a review of the re-evaluation program that will seek to enhance stakeholder engagement, improve efficiency, and increase collaboration with international regulators on re-evaluation work. Starting this fall, the PMRA will be organizing sessions with stakeholders to seek input on current challenges and successes of the existing program. Re-evaluation processes from other countries, including the U.S., Australia, and Europe, will also be examined to determine potential alternative models. The PMRA will present its potential alternative models.

Agricultural Stakeholder Engagement Unit

A new unit was established by the PMRA in July 2018 specifically to enhance communication with stakeholders. The goal of the Agricultural Stakeholder Engagement Unit (ASEU) will be to provide more meaningful engagement with grower stakeholders as this has been identified as an area for review within the re-evaluation program. This new unit will be led by Terri Stewart at the PMRA.

The ASEU pilot project will focus on issues and re-evaluations that pertain to minor use crops in Canada, which comprise a large segment of horticulture. The project will have two objectives: 1) to improve understanding of the current re-evaluation process and risk assessments/management and 2) facilitate improved feedback and submission of data for re-evaluations. For the latter objective, the ASEU will help stakeholders direct their efforts with regards to providing updated scientific and use pattern information to submit to the re-evaluation process. The OFVGA commends the PMRA for creating this new unit and believes that increased communication and engagement with grower stakeholders is a positive development for both the PMRA and the horticultural industry.

U.S. Minor Use update from IR-4

Representatives from the OFVGA attended the 2018 IR-4 Food Use & Biopesticide Workshop in St. Louis, Missouri in September 2018 to stay updated on the U.S. minor use system. Established in 1963, the IR-4 program facilitates the registration of conventional and biological crop protection products on both edible horticulture crops and minor non-food crops in the United States. The program is the counterpart to the Minor Use Pesticides Program (MUPP) in Canada. Although the IR-4 uses a different process to establish its final priorities, ultimately, it must also get down to a limited list of ‘A’ priority projects. The priority projects are then pursued for further research to establish efficacy, crop tolerance, and/or residue information to support product registration. More than 45,000 registrations for minor use crops have been developed through IR-4 since its inception.

Keeping up to date with the activities at IR-4 is important to Canadian horticulture for two key reasons. Firstly, introductions of new crop protection materials, whether conventional or biological, are often done at IR-4 before similar presentations are made in Canada. It is a good look into what new technologies may offer solutions for Canadian minor use priorities in the coming years. Secondly, there is also an established history of cooperation between the Canadian MUPP and IR-4 leading to more efficient and effective research, and ideally quicker registrations. As data generated on either side of the border is acceptable to both U.S. and Canadian regulatory agencies, there is no need to duplicate projects and resources can be maximized.

A total of 54 conventional projects were selected for priority at the 2018 annual meeting. The projects of relevance to Canadian horticulture are noted in the above table. In addition, spotted wing drosophila (SWD), downy mildew and cucumber beetle in cucurbits, and bacterial diseases of fruiting vegetables were among those selected as biopesticide priorities. Also attending were representatives from Agriculture & Agri-Food Canada (AAFC), the Pest Management Regulatory Agency (PMRA), the Ontario Ginseng Growers’ Association (OGGA), and the Canadian greenhouse vegetable industry. You may find additional information on the IR-4 website at https://www.ir4project.org/
Managing weeds and suckers in hops

JIM CHAPUT

The Pest Management Regulatory Agency (PMRA) recently announced the approval of a minor use label expansion for Chateau herbicide for management of labeled weeds and sucker control on hops in Canada. Chateau herbicide was already labeled for use on a number of crops in Canada for control of several weeds. This minor use project was submitted by Ontario as a result of minor use priorities established by growers and extension personnel.

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

Chateau herbicide is toxic to aquatic organisms, small wild animals, certain beneficial insects and non-target terrestrial plants. Do not apply this product or allow drift to other crops or non-target areas. Do not contaminate off-target areas or aquatic habitats when spraying or when cleaning and rinsing spray equipment or containers.

There are significant precautions and detailed directions for use on the Chateau herbicide label; follow these carefully.

For a copy of the new minor use label contact your local crop specialist, regional supply outlet or visit the PMRA label site.

Crop (s), Target, Rate (g/ha), Application Information, PHI (days)

<table>
<thead>
<tr>
<th>Crop(s)</th>
<th>Target</th>
<th>Rate (g/ha)</th>
<th>Application Information</th>
<th>PHI (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hops</td>
<td>Sucker control</td>
<td>280 - 420</td>
<td>TIMING TO HOPS FOR SUCKER CONTROL</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>or Labeled weeds</td>
<td></td>
<td>Apply Chateau herbicide WDG as a directed application after hops have reached a minimum of 1.8m (6 ft) in height for sucker control. Application should be directed to the lower 0.6m (2 ft) of the hops.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>TIMING TO HOPS FOR PREEMERGENCE WEED CONTROL</td>
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<td></td>
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<td>Apply Chateau herbicide WDG as a 30-45 cm (1 - 1.5 ft) band to each side of the hop row. Apply to dormant hops in the fall to ensure time for rain incorporation and activation. If weeds are emerged at the time of application, tank mix Chateau herbicide WDG with a labeled burndown herbicide, such as carfentrazone-ethyl, to assist with control of emerged weeds.</td>
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<td></td>
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<td></td>
<td>• Do not apply more than 420 g/ha in a single application. Do not apply more than 420 g/ha per season.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Do not allow spray to contact green stem (unless used for sucker control), foliage, flowers or cones, or unacceptable injury may occur.</td>
<td></td>
</tr>
</tbody>
</table>

Parasol FL fungicide now registered on tree fruit

Pome and stone fruit growers have a new dormant fungicide option to deliver effective protection from several difficult diseases with the recent label expansion for Parasol FL (flowable fungicide). Parasol FL—a group M1 copper hydroxide fungicide—is the first flowable copper hydroxide registered for use on apples, pears, cherries, peaches, nectarines, apricots, hazelnuts and filberts.

The Parasol FL formulation has one of the smallest and most consistent particle size of copper on the market providing optimal coverage and protection of diseases including fire blight, corneum blight, bacterial blight, eastern filbert blight, bacterial canker and leaf curl. Parasol FL also contains higher metallic copper equivalent (MEC) than some of the other copper products on the market, adding to its ability to control tough diseases.

“Vegetable growers already know the benefits of using Parasol FL—a effective disease protection in a flowable product that’s easy to use, stays in suspension and is highly compatible with other products,” says Maria Dombrowsky, Canadian horticulture manager with NuFarm Agriculture Inc. “Tree fruit and nut growers can now access the powerful protection of Parasol FL with our expanded new label.”

Application coverage is key for optimum disease protection with fungicide products such as Parasol FL. “Better coverage on the leaf surface of fruits or vegetables delivers better disease protection, and that’s exactly what growers can expect from Parasol FL with its small particle size and easy to use formulation,” says Dombrowsky.

Parasol FL is used as a dormant application only for tree fruits and nuts, and is also registered in beans, cucumbers, peppers, potatoes and tomatoes.

Corteva Agriscience guards integrity of spinosyn insecticides

Farming is a risky business with ever-changing variables such as weather and markets, so product quality is something that should not be a gamble for farmers. Corteva Agriscience continues advancing its ability to guard the integrity of its product, so product quality is something changing variables such as weather and market affecting farmers improve their productivity in the future; nevertheless, they are using are of the highest quality and meet performance expectations.

“Our ability to develop and refine highly accurate and reliable counterfeit detection systems is important to helping farmers improve their productivity in food production,” says Santosh Mangalam, insecticide portfolio leader, Corteva Agriscience. “Corteva Agriscience’s expertise translates into value for our customers and reinforces their confidence in our products.”

This technology builds upon the strict control processes the company has in place to uphold consistent quality. This type of quality is essential as spinosyn is approved for veterinary and pharmaceutical uses along with agricultural uses, and has been approved by the World Health Organization and the Food and Agriculture Organization (United Nations).

Corteva Agriscience is the Agriculture Division of DowDuPont.

Source: Corteva Agriscience October 11, 2018 news release

Our experts are here to help!

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Provide Agro now offers a wide range of Freilauber vineyard equipment including, pre-pruners, trimmers, leaf pullers and more. Freilauber has more than 25 years’ experience in the development and production of equipment for viticulture, fruit cultivation and tillage.

The roller hoe (right) is used for herbicide-free control of weeds in tree fruit. It first loosens the ground along the row in a strip of about 55cm; while the earth then buries the weeds.

**Fall Into Savings**

- Receive 5% off Van Wamel, ShurFarm and Fruit-Tec equipment ordered before December 15, 2018!
- Purchase a new H.S.S. Sprayer and receive a free Harvista Kit installed on the sprayer. Up to a 10% savings on the combination.
- Free upgrades available on select items. Call for details.

**Quality, Efficiency, Safety**

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Call your local representative to book a free demo, some restrictions apply.

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