

GENETICS

Evolution: still life in the pear category



Pears have evolved. Thanks to patient breeding, this pome category has come to life with Canadian-bred choices. The four varieties to the right are new in the last 20 years. Photographed at Thwaites Farm Ltd. at Niagara-on-the-Lake, Ontario, these pears are left to right: Old-style Bosc, Golden Russet Bosc, AC Harrow Crisp, AC Harovin Bounty and Cold Snap. Photo by Glenn Lawson.

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KAREN DAVIDSON

The table is set for a new generation of pears. Several varieties such as AC Harrow Crisp, AC Harovin Bounty and Cold Snap have made their debuts in the last 20 years. But by 2022, there should be two new Canadian pears available to consumers.

The first, still known by its breeding code HW623, was licensed to the Vineland Growers Co-operative in 2015 and first plantings are expected next year. HW624, which has red-blushed, medium-sized fruit and a high tolerance to both the bacterium that causes fire blight and the insect of pear psylla, is the most recent release from Vineland.

"To have tolerance to both fire blight and pear psylla adds armour to the variety and will benefit growers," says Michael Kauzlaric, technology scout and grower outreach, Vineland Research and Innovation Centre (Vineland). "There's interest around the world." These breeding efforts

“
To have tolerance to both fire blight and pear psylla adds armour to the variety and will benefit growers

~ MICHAEL KAUZLARIC

”
 started by Dr. Dave Hunter at Agriculture Canada's Harrow research station are a testament to patience. Although he's retired now, his remaining seedlings from the breeding program were transferred to Vineland for further evaluation in 2013. About 20 of them have been chosen for further evaluation with plans to expand grower trials in British Columbia, Ontario, Quebec and Nova Scotia.

"We are right around 600 acres of pears in British Columbia, mainly grown in the Kelowna area," says Carl Withler, BC's industry specialist for tree fruit and grapes. "Bartletts, Anjous and Boses lead the charge."

What a turn-around from the gloomy days of canning plant closures across Canada. The St. David's peach and pear cannery

in the Niagara peninsula, for instance, closed in March 2009. For a niche industry, that could have been a death blow combined with the fact that fresh-market pears were also falling victim to fire blight.

Ken Slingerland, formerly the Ontario government's tender fruit and grape specialist, and a handful of growers saw a glimmer of hope in 2011 when they visited the high-density pear plots at Cornell University. Better yields of 15 to 16 tons per acre were being achieved in this radical new system that was already revolutionizing the apple industry. Their competitive spirits were also piqued by news of high-density orchards being planted by pear growers in Italy, Chile and Oregon.

The pear is an odd fruit. Botanically, it's a pome fruit

like apples with a core of several small seeds surrounded by a tough membrane. Yet it's unusual for apple growers to also grow pears. Mostly, it's tender fruit growers who are likely to include a few pear acres to harvest after stone fruit is finished.

Some of the growers are changing to accommodate orchard practices more akin to apple growers, hedging high-density rows for example to keep the whole tree productive with flowering buds. They are also realizing that storage practices such as cold-atmosphere environments improve the flavour and marketability. Suddenly, pears are no longer the end-of-season fruit but a category that can be stored and marketed into winter.

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AT PRESS TIME...

Vineland Growers Cooperative Ltd expands storage capacity



Only a year ago, the board of directors of Vineland Growers' Cooperative Ltd. gave the go-ahead for a significant 30,000 square-foot expansion of cold storage facilities at Virgil, Ontario. At a November 8 open house, Phil Tregunno, chair of the board, explained that the ambitious project has been completed under budget.

The cooperative currently ships about 70 per cent of the Niagara Peninsula's tender fruit but as new, high-density plantings of pears come to maturity, the volume of fruit is expected to increase and provide packing opportunities into late winter. Cold Snap pears, for example, are already being stored in the new facility for the 2016/2017 season.

The new building contains 12,000 square feet of cold storage with 12 shipping bays. State-of-the-art equipment from Holland has been installed with four 35HP-cylinder

compressors. Four rooms are controlled-atmosphere. High-speed automatic doors preserve air temperatures as product is removed. One of the rooms has

flow-through racking for 630 pallets of fruit.

Mike Ecker, president, Vineland Growers' Cooperative Ltd, praised a variety of contractors who worked diligently to complete the project. The cooperative represents 300 members and 70 grower families producing apricots, cherries, grapes, nectarines, peaches, pears and plums.

Register for OFVC

"Innovations to Grow By" is the theme of the 2017 edition of the Ontario Fruit and Vegetable Convention. The event is scheduled for February 22 and 23 at the Scotiabank Convention Centre in Niagara Falls, Ontario.

Early registration starts December 1 at www.ofvc.ca. As well, make hotel reservations at the Embassy Suites by Hilton Fallsview Hotel.

Post-U.S. election analysis

As of this printing, president-elect Donald Trump has not appointed a secretary of agriculture, however names of several candidates in the mid-west have been trial ballooned by agricultural media.

From an agricultural perspective, one issue to watch is immigration reform. Powerhouse horticultural states such as California and Florida depend heavily on immigrant labour. If access to workers diminishes, American growers will face more pressure on margins and will be looking for labour-saving equipment.

Another issue is trade. American agriculture benefits substantially from exports, about \$127 billion in 2016. Farmers on either side of the border, won't be happy if trade wars result in retaliation.

Watch for whether a farmer or rancher is appointed as the next director of the Environmental Protection Agency (EPA). The American agricultural community has chafed under the regulations of the Clean Water Act and Clean Air Act. Farmers have feared that the EPA would have power to regulate farming practices on intermittent waterways in fields.

For a detailed analysis, read Rabobank's news release: <http://ow.ly/cOpC306t0Sb>

NEWSMAKERS

Congratulations to all the award winners at the November 11 Ontario Produce Marketing Association Gala. The OPMA Fresh Award was presented to **Nick Van Berlo**, a second-generation farmer who has helped put sweet potatoes on the tables of 7.5 million consumers this past Thanksgiving. The OPMA Outstanding Achievement Award was won by **Farm Boy**, one of Canada's 50 Best Managed Companies with a string of 17 stores in eastern Ontario which carry artisanal products as well as local beer and wine.

The OPMA Cory-Clack Streef Produce Person of the Year was awarded to **Jason Verkaik**, currently chair of the Ontario Fruit and Vegetable Growers' Association. The onion and carrot grower from the Holland Marsh has built bridges between country and city, with media interviews and lobbying efforts with provincial and federal politicians.



Jason Verkaik

OPMA's Lifetime Achievement Award was presented to **Seymour Weinstein** who has spent 62 years at the Ontario Food Terminal. He started with apples in 1954 and turned to melons in 1969. He pioneered bins in the marketplace as well as lobbied for Ontario laws that allowed trucks with perishable produce to move on Sundays.

The Canadian Horticultural Council has announced two new hires. **Nancy Baker** is manager policy research and development. **David Folkerson** is manager, communications.

The Ontario Fruit and Vegetable Growers' Association is the proud winner of an Agrinovation Award. **Brian Gilroy**, chair of the property section, spearheaded the project of placing nesting boxes for kestrels near orchards. It's a non-invasive way to control insects and rodents.

Congratulations to Prince Edward Island vegetable grower **Eddy Dykerman** who has been inducted into the Atlantic Agricultural Hall of Fame. The owner of Brookfield Gardens and Red Soil Organics in Brookfield, P.E.I., was nominated by the P.E.I. Federation of Agriculture.

One of CanAgPlus's long-serving directors, **Paul LeBlanc**, former general manager of the Apple Growers of New Brunswick, will be retiring from the board at the December annual general meeting. Since the late 1990s, he was the inaugural chair of the Canadian Horticultural Council's Food Safety Committee. He was instrumental in guiding program development for more than a decade, chaired the management committee when CanadaGAP was launched in 2008, and joined the board of directors when CanAgPlus was incorporated in 2012. Thanks to his vision and tireless efforts for the success that CanadaGAP is today.

The National Apple Competition at the Royal Agricultural Winter Fair attracted entries from the provinces of British Columbia, Ontario and Quebec. Kudos to all the growers who took time from busy harvests to submit entries for this showcase of so many varieties. For details on the winners, go to: www.onapples.com

Congratulations to the winners of the tasting for Ontario's Legislative Assembly wines for 2017. They are **John Hare for Hare Wine Company 2013 Jack Rabbit Red** and **Courtland Kirkup for Angel's Gate Winery 2015 Süsreserve Riesling**. The Grape Growers of Ontario is the official organization that represents more than 500 actively producing grape growers of 17,000 acres in the province's three viticulture areas: Niagara Peninsula, Lake Erie North Shore and Prince Edward County, and the emerging Norfolk County.



Dave Levac, Ontario Legislature Honourable Speaker and Brant County MPP with Courtland Kirkup, sales representative for Angel's Gate Winery.

Ontario is the official organization that represents more than 500 actively producing grape growers of 17,000 acres in the province's three viticulture areas: Niagara Peninsula, Lake Erie North Shore and Prince Edward County, and the emerging Norfolk County.

For more Newsmakers go to page 28

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COVER STORY

Evolution: still life in the pear category

Continued from page 1

The Cold Snap pear is the first variety to bridge this gap into a new era. With local research as a guide, storage protocols have improved so that the crisp, apple-like bite of a Cold Snap pear off the tree mellows into a more traditional pear-eating experience.

John Thwaites, a tender fruit grower, followed the research developments both in Canada and around the world. Son Graham became intrigued with the pear potential when he spent a season, almost a decade ago, working in the Goulburn Valley near Melbourne, Australia. Intensively farmed and irrigated, this area showcased what could be done with pears.

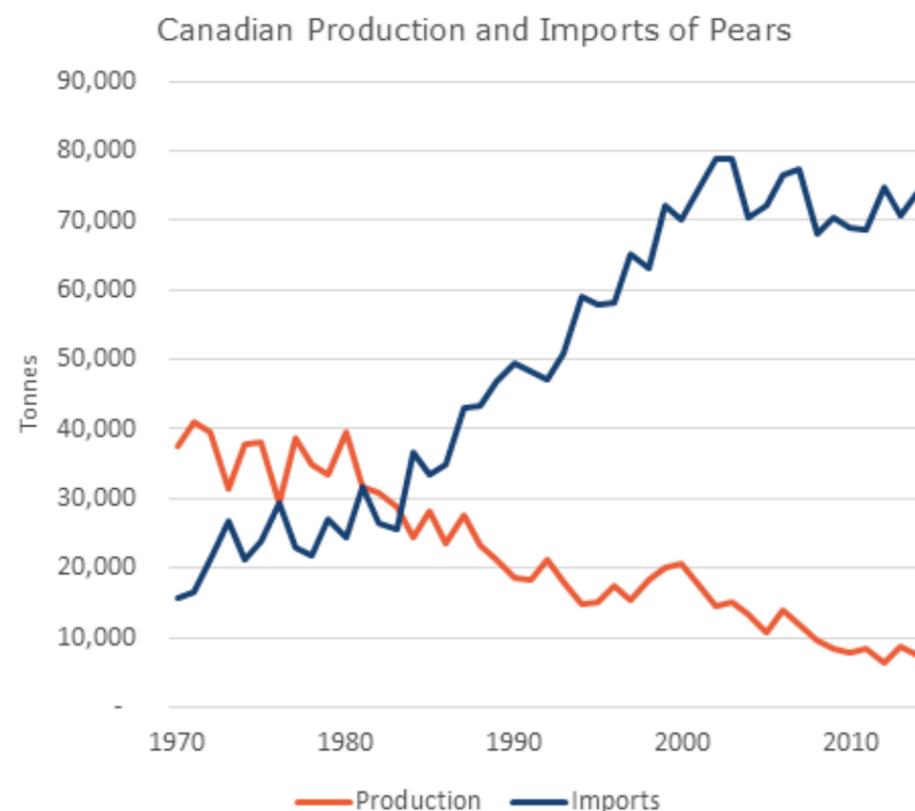
Just seven years ago, the Thwaites family planted their first high-density pear growers, now lay claim to 55 acres near Virgil, Ontario. Today, the Cold Snap plantings are yielding 13 tons per acre and with maturity, numbers should double.

“The orchards of Bartlett pears are slowly disappearing,” Thwaites recounts. “When the St. Davids canning factory closed, the pear industry declined with it. Bosc is the loveliest tasting pear but it’s so susceptible to fire blight, we can’t grow it anymore.”

The Thwaites family and other growers are bucking the downward trend that’s been entrenched since the 1980s. According to Statistics Canada (CATSnet, June 2015), only one out of every 10 pears consumed in Canada is grown in Canada. More than 75,000 tonnes of fresh pears are imported annually – about 54 per cent from the United States -- with an estimated value of \$82 million. Canadian fresh pear production is pegged at 8,855 tonnes with a farm-gate value of \$9.2 million. Ontario leads the way with almost 60 per cent of the production followed by British Columbia with 30 per cent and the remainder shared by Nova Scotia and Quebec.

“There’s definitely room to replace imported pears,” says Lana Culley, director, business development, Vineland. “In addition to replacing imports, we also see huge growth opportunities for pears. When we did consumer research in the spring of 2015, we discovered that pears weren’t top of mind. This tells us that there’s room to create more consumer awareness and drive demand – particularly when the pears we’re marketing are developed and produced in Canada, and have more natural resistance to disease.”

If a new pear variety were to be introduced, about 30 per cent of consumers said they would be interested. If that new pear variety was Canadian-grown,



then interest increased to 46 per cent. If the new pear added the attribute of being grown with fewer pesticides, then interested climbed to 66 per cent. This baseline research is encouraging for the HW624 variety that is in the pipeline.

“The pear story is compelling,” says Vineland’s Kauzlaric. “The future prospects for growth are encouraging, due to consumer preference for local fruit and a good eating experience.

However, consumers will need some education to understand differences in varieties. Too green? A consumer might think the pear is under-ripe. Too yellow? The consumer might think the pear is too soft and will turn to mush.”

New colours and shapes of pears will require some positioning in the marketplace. Packaging – and directions for storing and eating pears – are the next chapter to that story.

INTERNATIONAL

NEW ZEALAND

Apple industry sets sights on \$1 billion



The World Apple Report has ranked New Zealand as the most competitive performing country for apple production. With that praise, the country aims to export \$1 billion by 2022. That target is within reach at \$700 million this year.

The 2015 season broke records of 550,000 tonnes, up 13 per cent from the previous year. Two-thirds of the country’s production emanates from the Hawke’s Bay district.

Industry investment continues to keep up with international demand for apples. Another 1,700 hectares, representing one million trees, will be planted by 2020. Post-harvest technology and international marketing have moved New Zealand’s apples from a commodity to a high-value, niche premium product.

Source: FreshPlaza.com

NETHERLANDS

Tomato Experience Center underway



Despite a merger with Bayer in the near future, Monsanto’s seed company De Ruiter is building a new Tomato Experience Center in Lansingerland, the Netherlands. Construction is expected in 2017 for TEC 2.0 with a footprint of 8,000 metres squared.

Plans are to plant 300 different tomato strains in the new demonstration greenhouse. A visitors’ centre, with capacity for up to a thousand visitors annually, will allow education for the entire supply chain and consumers.

TEC 2.0 is testament to how quickly the greenhouse industry has evolved since the original greenhouse was built 13 years ago. The new centre will be used for new cultivation methods and plant sensors.

Source: FreshPlaza.com

UNITED STATES

McDonald’s names two potato varieties



McDonald’s, one of the world’s biggest purveyors of French fries, has chosen two new potato varieties. Not only are these varieties more environmentally sustainable, they live up to the taste test.

The Russet Burbank has been the gold standard for many years, but is susceptible to disease and requires top-notch soil fertility and water. Researchers from the Tri-State Program – Washington, Oregon and Idaho – have successfully bred the Clearwater Russet and Blazer Russet. These are the first two varieties that McDonald’s have added since 2000. It’s a significant move because only seven varieties are listed as acceptable for making their renowned French fries.

Seed production is ramping up.

Source: FreshPlaza.com

NORTH CAROLINA

Hurricane disrupted sweet potato harvest



From October 6-9, Hurricane Matthew spared crops in Florida and Georgia, but caught North Carolina sweet potato growers half way through their harvest. Damage is estimated at 10 to 15 per cent of the crop, but total losses won’t be known until after the curing process.

That’s a disappointing end to what looked like a promising crop. In 2015, there were 1.6 billion pounds harvested out of a total of 3.1 billion pounds in the United States. That’s a 4.8 per cent increase over the previous year.

Other notable states for sweet potato production include California, Mississippi and Louisiana. In the last 15 years, domestic consumption of sweet potatoes has risen from 4.2 to 7.5 pounds per capita.

Source: FreshPlaza.com

CROSS COUNTRY DIGEST

ALBERTA

Market access secured for Alberta seed potatoes to Thailand

Effective November 1, Alberta seed potatoes have access to Thailand. It's the third province to gain market access, joining Prince Edward Island and New Brunswick which secured export agreements in 2009. Altogether, these provinces represent 76 per cent of Canada's seed exports.

"The Potato Growers of Alberta are pleased to have worked with the Canadian Food Inspection Agency, Agriculture and Agri-Food Canada and Alberta Agriculture and Forestry to profile our seed industry to Thailand officials and to receive approval to export seed to their country," says Deb Hart, potato seed coordinator, Potato Growers of Alberta. "Alberta has a very innovative and progressive seed potato industry and is looking forward to the opportunity to grow low-virus, high-quality seed varieties requested by the Thai potato industry."

Alberta's seed potato exports to Thailand could be worth up to \$2 million annually, according to industry experts, adding to the \$5 million on average exported annually to that country. The increased access is expected to advance competitiveness and create new opportunities for the seed potato sector.

Canada is the fifth largest seed potato exporter in the world. The potato is the most valuable of all Canada's vegetable crops, accounting for a third of annual revenues for Canadian vegetable farmers. Horticulture accounts for 15 per cent of Canada's total farm revenues, which translates to more than \$6 billion per year.



PRINCE EDWARD ISLAND

PEI Potato Growers congratulate Fresh Media on Best of CAMA 2016 Award

Prince Edward Island potato growers congratulate Fresh Media of Charlottetown, PEI on winning the award for the best agricultural social media marketing program in Canada in the last year at the Canadian Agri-Marketing Association's Best of CAMA 2016 Awards on November 4 in Calgary, Alberta.

Fresh Media was awarded with the "Best of CAMA 2016 Social Media" award for their ongoing content marketing and social media management for PEI Potatoes. Focusing on key marketing pillars such as showcasing farm life on the Island,

the versatility and variety of potatoes, plus tips, recipes and where-to-buy, the past year saw significant reach and engagement for both Facebook and Twitter. The combined metrics for social media activity resulted in significant increases in the percentage of engaged followers across platforms, highlighted with more than 5.3 million impressions last year.

"PEI Potatoes has been working with Fresh Media for many years on promotional, social media and design projects," said Kendra Mills, marketing director for the PEI

Potato Board. "They understand our unique business and we are so pleased that have been honoured with this award, against some very tough competition!"

"Fresh Media is extremely proud to have won this national award on behalf of the Island's hardworking farmers," said Melody Dover, president of Fresh Media. "This recognition is the result of a great partnership with the PEI Potato Growers, sharing their stories, and celebrating our world-famous potatoes with consumers across the country."



Kendra Mills (left), marketing director of the Prince Edward Island Potato Board, and Melody Dover (right), president of Fresh Media, display keeper trophies from the recently awarded Best in CAMA 2016 Award for Social Media.

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Henry Zomer ON, MB, SK 905-308-4396	Leah Erickson AB, BC 604-957-2359	Jim Robinson ON, MB 905-715-8595	Laura Caralampides ON 514-984-0662	Rob Hovius ON, PEI, NB 519-580-3231	Paul Banks ON, NS 905-688-4300	Marc André Laberge ON 514-984-4589
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Photos like this one of Belmont Lot 16 can be found on the Instagram account.

Other finalists for the award were CropLife International, SaskCanola, and SeCan. The Canadian Agri-Marketing Association (CAMA) is a network of agricultural marketing and business professionals focused on improving the marketing and communications

sector of the industry throughout the value chain.

Prince Edward Island Potatoes can be found on Facebook at www.facebook.com/PEIPotatoes, on Twitter at @PEIPotatoes, and on Instagram at @pei_potatoes

GLOBAL MERGERS

To fund leading-edge research, companies are consolidating

KAREN DAVIDSON

Raleigh, NC – At Syngenta's North American Media Summit in late October, leaders addressed the news that the \$43 billion sale to China National Chemical Corporation would be postponed until the first quarter of 2017.

Ponsi Trivisvavet, president of Syngenta Seeds Inc., explained that the current agricultural economic environment is more challenging than ever to fund leading-edge research.

"Commodity prices are decreasing," she said. "It's harder than ever to get approval of genetically modified traits. So the question becomes: How much as an industry can we afford to invest in innovation? ChemChina helps a lot in terms of investment."

Jay Bradshaw, president of Syngenta Canada, offered some context. When Syngenta was formed in 2000 – from the former companies of Novartis and AstraZeneca – the cost to register a new active ingredient for crop protection was about \$111 million. Today, it's \$298 million – U.S. dollars."

He also explained that on average, it takes about 11 years from discovery of the molecule to commercialization and that means only about six years are left on the patent. The scale of investment is enormous, however Syngenta has managed to commercialize four genetically modified traits in the last six years.

Consolidation is not unique to crop protection companies. The same is happening at the retail level and in farm communities, Bradshaw said.

Swiss-based Syngenta already sells one-fifth of the world's pesticides. EU regulators are examining the merger because a Chem-China owned company – Adama Agricultural Solutions Inc. -- supplies generic alternatives. When the companies are combined, the question is whether farmers will have higher chemical costs or fewer available choices.

EU anti-trust authorities, consulting with the U.S., Brazil and Canada, have set March 17, 2017 as the deadline for their review.

Vern Hawkins, regional director for Syngenta's North American business, said that the ChemChina deal is quite different than other mergers. "This is a shareholder purchase," he said. "We've been clear that Syngenta will remain Syngenta in terms of governance of the board, decision rights and makeup of the board. It's comforting to customers and to us that we'll continue to bring value and

partnerships forward."

What keeps Vern Hawkins up at night? "I worry about the unpredictability of the business environment which is regulated from less than a sound science foundation. When you take safety factors to such an extreme degree, then the political component is a danger to the agricultural community. For example, if you're a farmer, you look at the regulations around water and use patterns. It's difficult to manage farm size and have flexibility. I'm as much worried about regulations – without clarity – for farmers as I am about bringing forward

new technology."

Those concerns echo true in Canada. However, there is encouraging news about a near-future fungicide. The active ingredient, adepidyn, is currently being assessed for registration under the Pest Control Products Act. Growers can look for it within three to five years says Dr. Nancy Tout, head, Research and Development, Syngenta Canada. Upon registration, multiple brands containing the active ingredient will be marketed under the Miravis product line.

Adepidyn is a new active ingredient in the carboxamide

chemical class (FRAC group 7) from Syngenta that provides excellent, long lasting control of powdery mildews, leaf spots, and other fungal pathogens on vegetables as well as row crops. The first wave of crops to be registered will include fruiting and leafy vegetables, cereals, peanut, grapes, potatoes, soybeans, and corn.

Preliminary research has shown residual control with adepidyn fungicide, at low rates in comparison to commercial standards, providing improved control of *A. solani* on potato and powdery mildew on cucurbits.

Tout concludes: "The long path from molecule to product is not a linear path, it's more like a rollercoaster but a journey that Syngenta is committed to seeing through right from discovery to when it reaches the grower. Syngenta's Canadian research stations get molecules at their earliest stages of development for testing under Canadian conditions. These local results are important to the advancement of products going through the development process."



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Growing Forward 2 



ONTARIO FRUIT AND VEGETABLE GROWERS' ASSOCIATION

Board briefs

Safety nets – Mark Wales

Agri-Stability

As of August 26, there were 7,799 producer applications processed for the 2015 program year and of those, 775 triggered payments totaling \$39.3 million. This represents about 60 per cent of total applications, and we will be closer to final numbers for the 2015 year at the December meeting. The trend of lower grower payments due to the GF 2 cuts continues.

Agri-Invest

As of August 26 for the 2015 program year, 3,269 files had been processed.

Self-Directed Risk Management (SDRM)

Forms were mailed in late September and most growers should have them already.

Canadian Horticultural Council (CHC)

We have a project under the Agri Risk program to do research on what types of programs exist or could exist to help growers deal with the costs related to a product recall. This came forward because of the challenges that potato growers faced with people intentionally placing harmful objects into crop in the field or possibly during shipping.

GF 3

Rebecca Lee, CHC

executive director, attended the non-BRM national consultations in Ottawa for two days, and I attended the BRM consultations on Nov 1 and 2 in Ottawa. We are still updating CHC's submission for GF 3, which AAFC will accept. This round of national consultations is just the beginning and we should see something soon in Ontario, although work on phosphorus and soil health seems to be higher priority at the moment.

Great Lakes Water Forum

I attended the three-day forum put on by the International Joint Commission in Toronto on October 4-6 at the Allstream Center. The event was live streamed. Many questions were put forward on-line.

The entire event can be found on binational.net with a wealth of materials and links to Great Lakes material.

The event was titled "Celebrating Our Great Lakes" and much of it was a report card on the health of the Lakes based on scoring a series of "indicators" and "sub-indicators."

Some of the implications from climate change are: decreasing ice cover which is causing an increase in total rainfall, overall decreasing lake levels, and increasing surface water temperature. These then impact habitat, species survival both native and invasive, as well as water quality.

Overall the status of the Lakes is "fair and unchanging" since the last assessment was

done in 2011. However, Lake Erie gets a "poor and deteriorating" rating which should not come as a surprise.

The presentations tended to be very data and chart heavy, but very thorough. The event also included an update on areas of concern, including contaminated harbours and tributaries. There were also presentations on micro plastics and PCBs and PBD (flame retardants). There were questions raised about dealing with "water pirates" which given the EBR announcement on the water bottling industry was a moment of déjà vu.

There were presentations on each and every invasive species that has been tracked as well as the health of native species. I would encourage anyone interested to go to bi-national.net for more information. On the last day Minister of Environment and Climate Change (MOECC) Glen Murray and federal MOECC Minister McKenna were on the same panel. Murray announced that Canada's Domestic Plan is to be released in December. As I have said before, every politician is looking for the quick fix on water issues and they will continue to do and say things that are unrealistic and unachievable within the normal political timeframes of the next election.

Another interesting note was that Amy Cronin did a presentation on the progress of GOT at this event. Hers was the only

presentation by agriculture to a room of more than 450 environmental representatives.

Phosphorus

The Phosphorus Working Group that George McCaw chairs jointly with Bruce Kelly continues to meet and look at ways that agriculture can help meet Ontario's 40 per cent phosphorus reduction commitment by 2025 in a manner that is both cost effective and practical. Our work is to feed into the Domestic Action Plan that Minister Murray announced.

EBR Postings

Murray also announced an EBR posting number 012-8760 entitled Reducing Phosphorus to Minimize Algal Blooms in Lake Erie. This is the beginning of banning winter spreading of nutrients – not a common practice in Ontario. The deadline date was November 20.

Another EBR posting is a regulation To Establish a Moratorium on the Issuance of New or Increasing Permits to Take Water for Water Bottling, and is number 012-8783. Comments are due by December 1. This appears to be an unusually swift reaction to the negative press around Nestle's procurement practices of water.

Hydro

First the Ontario Premier's

September 2016 throne speech announced an eight per cent rebate for all homeowners. This will come as an eight per cent deduction on the total of your bill before the HST calculation. So you will see it as a line item rebate. This is supposed to be on the total of your bill including electricity cost and delivery. The other part of the announcement was that those entitled to the RRRP (rural rate reduction program) will receive a 12 per cent reduction in the delivery portion of their bill. This will be paid for by all electricity customers and be part of the fees buried in the Global Adjustment Fund which is part of your delivery charges. This will be for "rural low density" customers.

In addition, the provincial government has stopped taking requests for new, large green-energy projects. Apparently we have enough electricity. This includes wind, solar and biogas. This directly conflicts however, with the Waste Free Ontario Act that requires those operating a landfill site to capture and destroy the methane. You can best do this by making electricity, but now you can not sell it. Another poorly thought out green energy announcement.

Municipal Property Assessment Corporation (MPAC)

Farm assessment notices were mailed this fall, with increases of 60-100 per cent not uncommon in many areas.

The 'AQUA Wetland System'

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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 & Haldimand
- 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@aquatt.com



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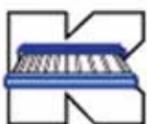
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ONTARIO FRUIT AND VEGETABLE GROWERS' ASSOCIATION

Board briefs

Research section – Harold Schooley

The federal survey on Access to Innovation and Research for Horticultural Associations in Canada was just released. The survey was done a year ago. There were 34 respondents from more than 90 associations solicited. Not a high number, but I would say good by most standards and representative of most sectors within horticulture across the country.

- Most hort associations were regularly involved in developing, funding and conducting research
- Mostly with matching funds from provincial or federal governments
- Most organizations fund from general revenue as opposed to a research levy collection system (only 3)
- Most have been involved with GF1 and 2 largely through the Developing Innovative Agri-Products (DIAP) and Science Cluster programs
- Most found the application and financial reporting processes onerous
- Most would still use a GF3
- Most had a research priority list

- Most thought they should not match more than 25 per cent
- 100 per cent believed research contributed to the ongoing success of their commodity
- The highest research priorities for horticultural associations were pest, disease and weed management issues, followed secondly by labour-saving devices and thirdly by product quality issues.

The survey divulges no surprises and seems rather elementary in nature. Of course industry sees the value of research, of course the reporting procedures are onerous, of course industry does not like to contribute more than 25 per cent matching funds. As I have been reporting for years, if you don't look after the pest management fires first, the rest of it doesn't matter.

Crop protection section - Charles Stevens

Craig Hunter and I met with the Pest Management Regulatory Agency (PMRA) in Ottawa on September 9. It was a positive meeting about the re-evaluation process. The Agency agreed that the edible horticulture sector should be

The highest research priorities for horticultural associations were pest, disease and weed management issues, followed secondly by labour-saving devices and thirdly by product quality issues.

~ HAROLD SCHOOLEY

engaged in the re-evaluation process from the beginning, prior to the public comment period. The industry will be notified in advance if the Agency plans on reviewing a product's chemistry. The important part is for the review to use current data, not information from 30 years ago. The discussions also revolved around the harmonization approach of a joint review process with the U.S. – where the governments should bundle a lot of these older chemistries and review them together. This in turn helps us here in Ontario and Canada to ensure that we are on the same page with our biggest trading partner.

Worker exposure to pesticide residue continues to be a big issue. According to Peter Chan who heads up the application exposure assessment – 90 per

cent of exposure is reduced if workers wear gloves. This is a positive. Craig Hunter has prepared a report about including gloves as part of the label requirement, and has sent this to PMRA. For example, in the U.S. they can spray a specific product up to six times, whereas we in Canada are only allowed to spray it once. This all devolves to the differences in approach to post-application worker protection.

Craig Hunter also attended the IR-4 meetings in the U.S. in September. The focus of the trip was on building relationships and looking into new chemistries, and preparing for several joint research projects with the Pest Management Centre. We had meetings with Rebecca Lee from Canadian Horticultural Council (CHC) and gave her some history and



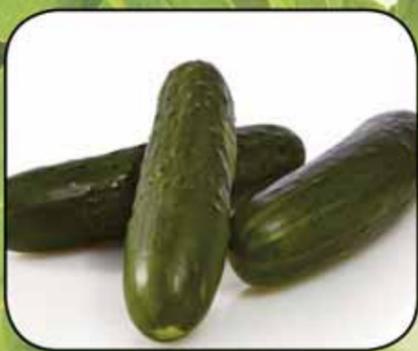
Japanese beetle. Photo by Glenn Lowson.

informed her about what we need for crop protection in terms of support. A crop protection meeting was held on November 9 at the OFVGA office. Commodity representatives were asked to bring forward their issues.

We are planning on attending the NAFTA meetings.

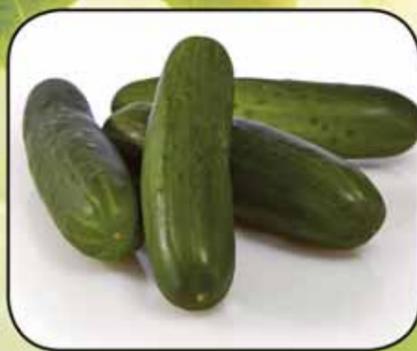
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Electricity: cutting the cost



JAN VANDERHOUT
VICE-CHAIR, OFVGA

After dissecting the cost of electricity and realizing that it is a lot more expensive than just the electrical energy, we naturally desire to get our price of electrical energy down. Sad to say that there is no great revelation here however there are a few things that electricity consumers can do to curb electrical costs.

For those who have time of use meters there is a somewhat obvious opportunity in running some of your higher loads in off peak hours. This can be running your dishwasher or dryer at off peak times in the house or charging the battery of any electrical equipment avoiding the high peak hours. On many farms this will not apply so there really is no financial benefit to this strategy if you do not have a time of use meter.

We all have the opportunity to use the "Save on Energy" program and get some financial assistance for installing more energy efficient equipment like LED lighting or high efficiency motors. Energy saving technologies such as installing Variable speed drives on some motors that do not run at full load on a constant basis may also give you access to funding. The save on energy program is designed to incentivise investment in efficiency by helping pay for the equipment both when replacing old gear or buying new when it is difficult to justify the extra cost of the more efficient equipment. This may be as simple as using the coupons at the local supply store when you buy an LED bulb or for larger projects design must be engineered and approved BEFORE even beginning the purchase or installation. Start these projects early to avoid timing issues.

If you have a fairly stable base load you may also be able

to get support for generating some of your own electricity behind the meter. The incentive is 20 cents per Kwh you generate in the first year up to 40% of your project cost. These systems are not cheap however and there is a string of requirements that must be met before you install or are approved.

For some very large users there is the ICI program which gives access to off peak electricity at preferred rates. To use this program however a minimum load of 1Mega watt is required and you only get access to the power in off peak hours and therefore difficult to use unless you are several acres of greenhouses agreeable to lighting only when off peak electricity is available.

The real issue here is the cost of electricity in Ontario. I must emphasise that in no way do I wish for government to pay part of our electricity prices by subsidizing our bills out of tax dollars. The recent announcement that we will get an 8% rebate off our electricity bills starting in January is misleading. The cost of electricity has not changed we are just going to pay for it out of our provincial tax revenue or even worse add it to our provincial debt. In October it was announced that Ontario and Quebec had negotiated a deal that will save us 70 million dollars over 7 years. Quebec will buy our electricity at times when we have surplus and ramp up their hydroelectric production to sell to Ontario when we need more electricity. Although in the big picture 70 million is really not a lot of money (1\$ per Ontarian per year) it is going the right direction and we should hope that similar advantages can be found. Hydro One, Ontario Power Generation the Ontario Energy Board, and Government of Ontario will need to work very hard to find cost effective ways of delivering electricity to Ontarians especially with the determination to providing "clean" electricity.

As a province we are very committed to renewables like solar and wind which although they are carbon neutral they have issues of their own. Wind and solar also have the added challenge that they are not consistent on a 24 hour period or through the year. Even if we had enough renewable capacity

to run everything we would still need a dispatchable generation source that can fill the gaps when it is not sunny or the wind is not blowing. The Quebec contract is a good example of how this can be done however until some kind of giant battery is invented there needs to be an electricity source on standby that will fill the gaps. Peaker plants currently are filling that gap very effectively but they are not very green as less than 50 percent of the energy is converted to electricity while the rest is simply blown into the atmosphere as waste heat. A possible environmentally friendly solution would be to add heat load to peaker plants to utilize the wasted energy by providing heat to homes and businesses. Challenge is that the plants are often away from potential users of the waste heat and space heating is only required for part of the year.

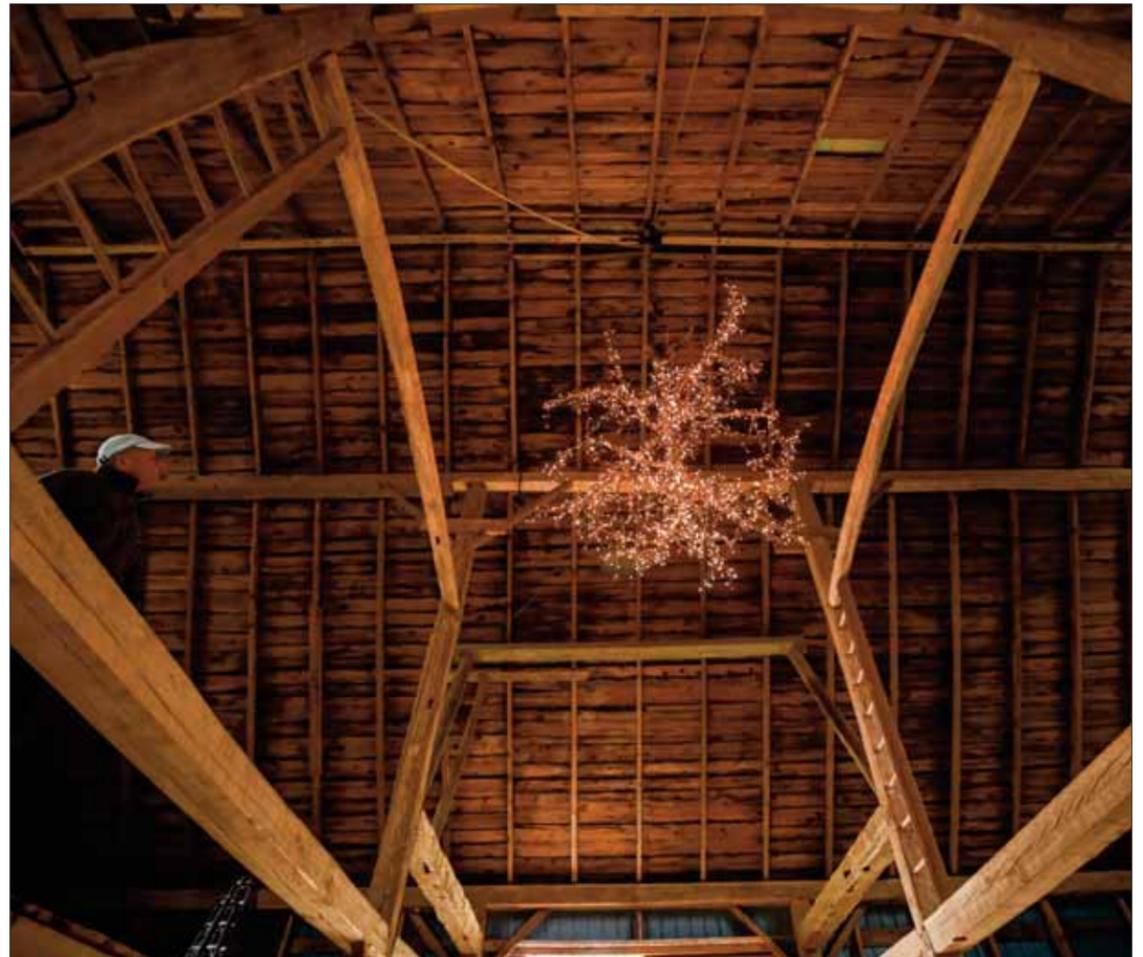
My favourite solution is distributed electricity generation at sites where heat can be used and

displace the use of other fuels while the electricity is exported into the grid. Greenhouses are a natural fit for this type of solution since they use heat through much or all of the year and often have the ability to store the heat in the form of hot water for use later in the day or in the near future. Factories and food processors could also make use of the waste heat from onsite generators using the heat for their processes and heating. This type of model could also relieve some of the strain of the electrical grid as well as reducing the losses associated with electrical transmission and transformers. One challenge with this solution is that too often the electricity power lines and transformer stations do not have capacity for the electricity and system upgrades are also very costly. Another challenge is the contracts that must be in place for these kinds of projects to move forward can be very elaborate and must be designed with a certain surety of return

on investment for the generator while not costing the electrical ratepayer more than is acceptable.

It seems certain that electricity costs will continue to challenge the Ontario ratepayer for the foreseeable future and until "the province" finds ways to save in the generation, transmission and delivery of electricity we the people will need to find ways to use less electricity from the grid. The challenge for "the province" will be in running our electrical system lean and mean while not compromising safety and reliability. Can there be a way to store electricity or is there somewhere to install more hydro dams. Is it possible to design Combined Heat and Power contracts that make sense for the generator without costing the electricity user too much? Lots of questions, hard questions need to be asked and need to be answered before the cost of electricity will be cut or even trimmed.

HOLIDAY GREETINGS



A chandelier in a barn? Why not, when the occasion is a family wedding. Creative neighbours of the Ardiel family fashioned the centerpiece from a deceased apple tree, giving new life with an exquisite set of white lights. This month, the photo evokes an inverted Christmas tree, admired by John Ardiel, Clarksburg, Ontario. The Grower extends heartfelt wishes for a Merry Christmas! Feliz Navidad! Happy Holidays! Photo by Glenn Lawson.

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THE
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PERSPECTIVE



Are pumpkin lattes good for you? Ask an expert



OWEN ROBERTS
U OF GUELPH

Before the next food fad comes along – and odds are, it could include fruit and vegetables, meaning you may have to explain it, defend it or apologize for it – familiarize yourself with Best Food Facts. It's a free, science-based information source to help consumers and others seeking answers to difficult and complicated food questions that have them worried about what they're eating.

Best Food Facts started in

the U.S. five years ago, quoting about 200 food experts from American universities.

Consumers submit a question to BestFoodFacts.org, a researcher is contacted for an answer, the answer is published on a blog post and the post is sent to the questioner.

Last month, it branched out into Canada, recruiting 10 Canadian experts with distinctly Canadian answers. Among them are two leading researchers from the University of Guelph, Profs. Alison Duncan and John Prescott. They'll address human nutrition and animal bacterial disease questions, respectively, from Canadian consumers.

This could really catch fire. In the U.S., two years after its inception, more than 200,000 visitors went to its website, BestFoodFacts.org. Last year, that number soared to more than 800,000. The organizer, The Center for Food Integrity, says traffic is growing exponentially.

Owing to different production practices and

legislation between the U.S. and Canada, there can be different answers to some of the same questions posed on either side of the border.

But overall, Canadian producers will be familiar with the most popular topics American experts have faced: genetically modified organisms (GMOs), gluten-free food, hormones and chemicals in food, organic versus conventional food and the role of food in weight loss and management.

Ironically, some of the new technologies farmers use to keep their cost of production down and simultaneously rein in the price of food coming from the farm, are the same ones that cause people to worry about safety.

Consumers should be more worried about food storage and preparation, which is where the most food safety problems appear so far. Pro-technology groups are fond of saying there's never been a single case of death or illness related to GMOs, in the 20 or so years

they've been around. Yet, consumers have been told by anti-technology activists that GMOs are worrisome, and so fear persists. When someone is worried, saying "don't worry" doesn't help much, unless you can clearly explain why.

That's where Best Food Facts comes in. Here, the Best Food Facts service is being coordinated by Guelph-based Farm & Food Care. That means it will get some good agriculture and food sector oversight.

"When you google search what's on your plate and how it was grown, you deserve to find credible information from Canadian experts," says Farm & Food Care chief executive officer Crystal Mackay.

Odds are that the Canadian researchers will grow to be as busy as those south of the border. Mackay wants to see the reach of Best Food Facts in Canada at 150,000 visitors next year. Indeed, in its first month, it's already fielded 700 Canadian content questions.

If you're confused about food

-- and who isn't? -- go ahead and ask a question. But check it periodically for trends too, to see what consumers are curious about.

For example, with Christmas around the corner, there's all kinds of information about turkey and traditional trimmings.

Fruit producers in particular will be interested to read the eight questions about apple cider vinegar, touted by many as a cure-all.

The same goes for pumpkin spice, which has sparked a fat-filled latte craze. There's nothing wrong with a basic pumpkin spice latte – in fact, pumpkin is low in calories, as are the spices, some of which are also considered antioxidants, which go into it. Rather, it's the toppings that go on top that make nutritionists cringe.

Better to have the answers now, than to scramble looking them up later – BestFoodFacts.org.

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ONTARIO FRUIT AND VEGETABLE GROWERS' ASSOCIATION

Board briefs

Property Section - Brian Gilroy

I attended a meeting in Meaford, Ontario about the Co-ordinated Land Use Planning Review, which had on its agenda the proposed expansion of the Niagara Escarpment Control area. The position of the Ontario Federation of Agriculture and the Ontario Fruit and Vegetable Growers' Association is that until there has been dialogue with all property owners about how this

change affects them, no expansion should take place.

With the development controls currently in place, it has been the farm organizations' position that separate permitting requirements are not needed for the Niagara Escarpment Commission and that oversight should be withdrawn from the Ministry of Natural Resources and reside with the same ministry that oversees development policies, ie. Municipal Affairs.

On another topic, bird damage mitigation work has

come to a close for the year. OFVGA was successful in winning a Premier's Award for Agri-Food Innovation Excellence for the kestrel-nesting project.

President's Council is working with Farm and Food Care and consultant Michael Keegan on how to engage decision makers and influencers, politicians and civil servants about agricultural issues. The group examined some research about Canadian Public Trust. One of the top concerns was access to affordable healthy food.



These apple pickers were hard at work at the farm of T & K Ferri Orchards, Clarksburg, Ontario. Photo by Glenn Lawson.

Canadian Horticultural Council - Adrian Huisman

Public Trust / Social Licence

The Horticultural Value Chain Roundtable has been asked to contribute \$10,000 towards hiring a coordinator for the initiative. The ornamental

sector will be asked to provide 50% or \$5,000 of this amount. CHC will also contact CPMA and request that they contribute towards the cost of this initiative as well.

Next Policy Framework for Agriculture

The CHC Board and the Business Risk Management Committee are working on the next Policy Framework. Highlights are expected to include a return to GF1 rates for Agri-Stability and Agri-Invest (although the document will say 4.5% to be consistent with the resolutions passed at the last AGM). The need for a Self-Directed Production Insurance (SDPI) will also be included.

Fall Harvest Event

The Fall Harvest Event took place November 21 – 23 in Ottawa with 38 industry representatives meeting with MPs. Each group had four to five members, including a team leader from industry and a staff member from either CHC or CPMA to take notes.

There were two principal topics presented at all groups' meetings:

- Labour
- National health policy

Two additional topics were:

- Financial risk management (PACA) – to be managed only

by two specific teams, including one made up of the "senior team" (Keith Kuhl, Sam Silvestro, Ron Lemaire, Rebecca Lee), and another one to be determined.

- Innovation – to be brought up by the groups should there be additional time.

COMING EVENTS 2016

- Dec 4-6 North American Strawberry Growers, Raspberry Growers and Blackberry Growers, Grand Rapids, MI info@nasga.org
- Dec 6-8 Great Lakes Fruit, Vegetable and Farm Market Expo, Devos Place Convention Center, Grand Rapids, MI
- Dec 6-8 GrowCanada Conference, Westin Ottawa, Ottawa, ON
- Dec 7 Ontario Potato Board Annual General Meeting, Holiday Inn, Cambridge, ON
- Dec 8 CanadaGAP Annual General Meeting, Canadian Federation of Agriculture Boardroom, Ottawa, ON
- Dec 13 Fresh Vegetable Growers of Ontario Annual General Meeting, OMAFRA office, Woodstock, ON

2017

- January 4-6 Potato Expo, San Francisco, CA
- January 10 Ontario Apple Growers' Annual General Meeting, Holiday Inn Toronto International Airport, Toronto, ON
- Jan 10-11 Ontario Fruit and Vegetable Growers' Association Annual General Meeting, Holiday Inn Toronto International Airport, Toronto, ON
- Jan 17-19 Empire State Producers Expo, Oncenter, Syracuse, NY
- Jan 23-24 Nova Scotia Horticultural Congress, "Building Blocks for Tomorrow's Farms, Old Orchard Inn, Greenwich, NS
- Jan 24 Nova Scotia Fruit Growers' Association Annual Convention, Old Orchard Inn, Greenwich, NS
- Jan 24-26 Manitoba Potato Production Days, Keystone Centre, Brandon, MB
- Jan 26-28 19th Annual Pacific Agriculture Show, Tradex Exhibition Centre, Abbotsford, BC
- Jan 26 – 29 Guelph Organic Conference and Trade Show, University Centre, Guelph, ON
- Jan 31-Feb 1 Ontario Processing Vegetable Industry Conference, Four Points by Sheraton, London, ON
- February 2 BC Fruit Growers' Association Annual General Meeting, Penticton Lakeside Hotel, Penticton, BC
- Feb 8 – 10 Fruit Logistica, Berlin, Germany
- Feb 15 B.C. Tree Fruit Symposium, Trinity Baptist Church, Kelowna, BC



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RETAIL NAVIGATOR

Why loyalty programs?



PETER CHAPMAN

Every retailer needs a loyalty program; some are just more sophisticated than others. They all need to give consumers a reason to come back. Walmart would tell you their every day low prices are their loyalty program whereas Costco would tell you the value they deliver to members is their loyalty program. The more traditional retailers such as Loblaw, Sobeys and Metro all want you to carry their loyalty card in your wallet. They are each trying to differentiate the offering and give consumers a reason to shop their stores.

There is no doubt technology has made loyalty programs much more enticing to retailers. The amount of information they are able to capture about their consumers at the front end is huge. They do know who is buying what and when. The challenge is to sort through the data and use it to drive sales and profit. They are using it and we see more and more targeted promotions to loyalty program members. This is where they can leverage the data to encourage members to buy related items with higher margins. For example baby food to diaper buyers but now they have the ability to promote organic baby food to members who buy organic produce and diapers. These types of programs should be much more effective.

The third reason retailers are investing in these programs is to lead into on-line shopping. An established membership base used to using a retailer's card is the foundation for on-line shopping. They can communicate with these people on-line and the relationship will evolve as consumer shopping for food on-line continues.

What loyalty means to retailers

These programs are an extension of retailer's brands. They are very important and we see huge investments in systems, people and margin to drive the programs.

The premise of the programs is very similar. Sign up as many consumers as possible and provide incentives to use the

card every time they shop. Offer discounts or points to reward purchase behavior. Make the program attractive enough for suppliers to buy points (or miles at Sobeys), which fund the program. This gives suppliers signage on the shelf and access to data from purchases. They each have some unique attributes such as the data you can access or how you access it.

Sobeys use the Air Miles program to integrate with their front end. Air miles have penetrated a much higher share of the market than Sobeys, so they have the ability to promote to food shoppers broader than just their base. Sobeys also have access to Air Miles' resources for data analysis.

Loblaw uses the PC Points program, which was developed from the Shoppers Drug Mart Optimum program. Consumers collect PC Points, which are redeemable for groceries and certain items deliver large amounts of points when purchased. The PC program is integrated with mobile, which is an advantage. Members receive emails and extra points based on their shopping history.

The Metro & moi program is similar to the Loblaw program. Metro is using it to promote their on-line shopping more than the other retailers. Metro also sends a voucher to member's home address with their rebate amount which has a cost but people see value in a 'cheque.'

What loyalty programs mean to suppliers

These programs are one more opportunity to reduce your margin in exchange for potential volume. No different than any other form of promotion where you reduce your price. When you build your annual sales plan for each retailer you should consider the purchase or points or miles to support your items. Remember to track your overall spend per case and if you choose to invest in loyalty programs you might consider reducing your participation elsewhere.

The real benefit to these programs comes if you use the ability to learn from the purchase data and drive new people into your products. A sign on the shelf with points is really no different than a reduced price. Some might argue it is less effective because only a portion of shoppers will be a member. You need to invest resources to assess the results and find the offers that deliver a greater return. If you are willing and able to do this, these programs are useful.

It is difficult to share actual costs, as retailers appear to use different scales depending on the size of suppliers, number of SKUs and your level of participation in the program. In other words these are like listing fees where you can negotiate your participation. There are standard fees but the more you support the program the better

price per point or per mile.

Retailers do see loyalty programs as part of their brand and supplier's participation is a plus. Category managers who deliver higher point purchases are perceived to be doing a better job. They drive the revenue to support these programs. Category managers do have points or miles they can use to promote products that are not supplier supported.

You should always keep a level playing field in your spend per case with different retailers. This is the point where Walmart will say if you invest in miles or points you have to invest in price with them. Loyalty programs are here to stay

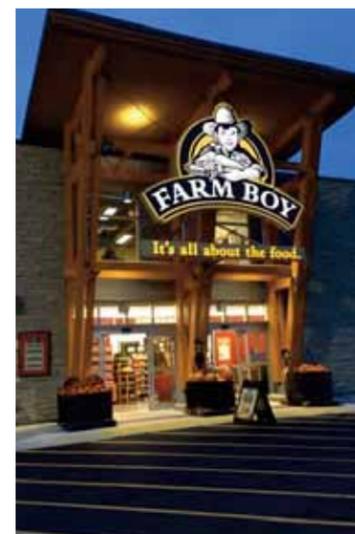
Retailers have invested considerable amounts in these programs. When you do participate assess the performance relative to other tools you have. Focus your investments where you get the best return.

If you have some examples of loyalty programs that have influenced your sales please give me a call at (902) 489-2900 or send me an email at pchapman@gpsbusiness.ca.

RETAIL NEWS

New Farm Boy store in Cambridge Ontario

As the larger chains slug it out, there are some very good small regional chains for consumers to pick from. This new Farm Boy store in Cambridge,



Ontario illustrates an interesting offering. The store is a cross between Whole Foods and Trader Joe's. Not as good as either of these but certainly a very good store.

It is interesting to note after being in a number of stores in the market, this store had the best fresh produce and it was the first time all day an employee acknowledged me. Refreshing after walking a number of stores!

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 on line 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. pchapman@gpsbusiness.ca

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FOCUS: FOOD SAFETY IN THE VALUE CHAIN

CanadaGAP participants achieve highest average audit scores since 2008

Year-over-Year Increase in CanadaGAP Participation



Photo by Glenn Lowson

Year (Sept – Aug)	Number of producers	Increase	Growth Rate
2008-2009	537	537	100%
2009-2010	781	244	31%
2010-2011	1879	1098	58%
2011-2012	2204	202	10%
2012-2013	2440	236	9%
2013-2014	2526	86	3%
2014-2015	2927	401	14%
2015-2016	3042	115	4%

HEATHER GALE

Key Achievements

2016 marks the eighth complete season of CanadaGAP operations. The program has seen steady growth since its inception in 2008. The enrolment rate spiked in 2015, but leveled off again in 2016 with a 4% growth rate. The table above shows year-over-year growth in the number of producers participating in the program. Almost 4,000 enrolments have been processed by the CanadaGAP office since 2008. The growth rates illustrated are net of departures from the program, which may be due to changes in a farming operation, retirement, voluntary termination of certification, etc.

We're pleased to highlight the following key achievements for 2016:

- Option D for repacking and wholesaling operations was successfully benchmarked by GFSI (Global Food Safety Initiative). A significant increase in enrolments to Option D occurred following the announcement. Consistent with targets set by the CanadaGAP Board and management, 60 companies from the repacking and wholesaling sector are now CanadaGAP-certified.
- CanadaGAP undertook a thorough review of new GFSI benchmarking requirements and

is working on implementing plans to meet increasing GFSI expectations (e.g., new Food Fraud provisions, additional assessments of Auditor Competency, introduction of Unannounced Audits in 2017, managing rising costs of benchmarking and surveillance by GFSI, etc.).

- We are making good progress with achieving full Government Recognition. The final stage of recognition, Implementation Assessment, consists of an examination by federal and provincial governments of the delivery of the program by CanadaGAP and its certification bodies. The process is currently underway and is expected to be

complete by 2017.

- CanadaGAP partnered with the North American Potato Sustainability Initiative (PSI) to offer verification audits for potato growers participating in the IPM Survey. Nine CanadaGAP auditors were successfully cross-trained on the PSI requirements. The first Potato Sustainability audits will take place over the 2016 potato storage and shipping season.
- Congratulations to CanadaGAP program participants, who have achieved the highest average audit scores since the program started. The average audit score in 2016 was 94.04%. Kudos to our hard-working farmers, packers, repackers, storage operators, wholesalers and brokers who are doing an outstanding job with food safety!

to their experience. In other questions:

- 36% of program participants were not aware of the process to appeal their audit results.
- 16% were unclear on the difference between CanadaGAP (as the scheme) and their certification body. In response to the question, "What is the best thing about participating in CanadaGAP?"
- 41% said the best thing was "Demonstrating responsibility for food safety"
- 35% cited "Access to market (processor, retailer or other customers)" as the main benefit.
- For 11%, the most significant benefit was the "Comfort of knowing that risks are being managed"
- 9% indicated the best thing about the program was "Improved farm/organizational management".

Others cited their own reasons:

- > "Simple and easy to use and easily understood, plus forms are already made out for use."
- > "We have always embraced food safety. It's good to have professional 'eyes'."
- > "Many advantages to participating in CanadaGAP but [I] had to pick just one although the rest all apply to our farm also. I like the fact that the program is Canadian owned, meticulously reviewed and updated so that it maintains a highly recognizable standard."

When asked about the main drawback to participating in CanadaGAP, respondents indicated:

- Burden of paperwork (63%)
- Cost of the program (22%)
- Ensuring customer needs are met (report uploads, additional requirements, etc.) (4%)
- A bad auditor (3%)
- Difficulty of the audit (1%)
- Other reasons, such as the difficulty of having all suppliers certified, audits occurring at a busy time, etc. (6%)

Program Participant Survey

Outreach to program participants was stepped up via an online or paper-based survey. The survey was distributed to members in September 2016, with 74% of respondents completing the web-based version. Completed surveys are still coming in, but preliminary results (based on 170 responses) show that:

- 91% felt that their auditor was knowledgeable and professional.
- 62% found that their auditor had good common sense.
- 68% stated that their auditor spoke clearly.
- 30% believed that their auditor was looking for things they were doing well.
- Only 3% disagreed with the auditor's findings.
- 14% felt that the auditor was trying to find things wrong.
- 8% said it seemed that the auditor was out to get them.
- 6% described their auditor as unreasonable.

Respondents could choose as many answers as were applicable

Continued on next page

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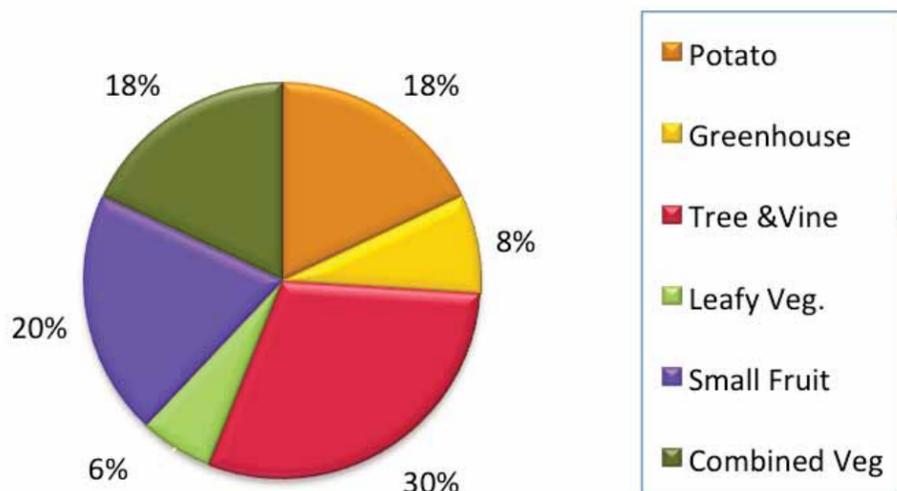
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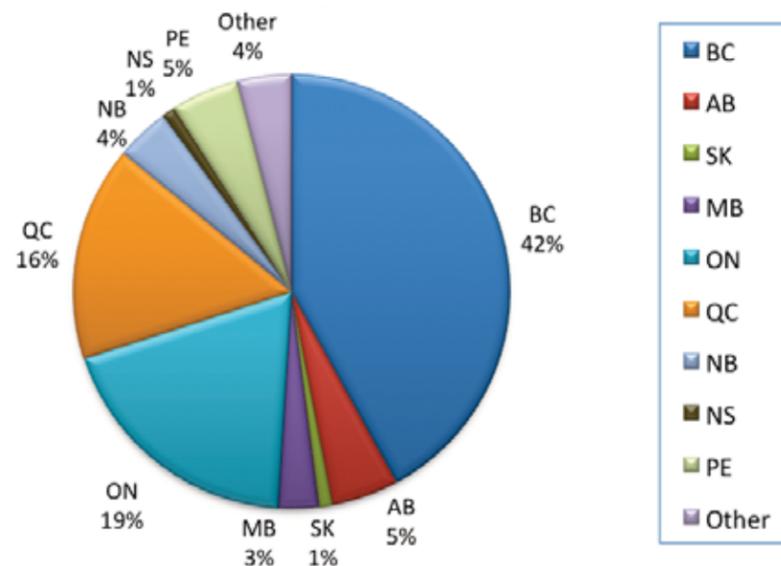
FOCUS: FOOD SAFETY IN THE VALUE CHAIN

CanadaGAP participants achieve highest average audit scores since 2008

Proportion of CanadaGAP participants represented by crop grouping
August 31, 2016



Operations Enrolled by Province
August 31, 2016



	2016	2015	2014	2013	2012	2011
No. of audits reported	1390	1270	1037	1031	771	557

Reporting period from September 1 to August 31

Results are preliminary, not final, and are based on the current response rate of <10%. Surveys are being accepted until the end of 2016. We thank all members who have taken the time to provide their comments and suggestions, and encourage those who haven't yet responded to share their feedback.

Participation Trends

Nearly 3,050 producers are now participating in CanadaGAP. The following participation trends are significant for 2016:

- The fastest growing participation rates across the provinces are in Quebec and PEI. Quebec saw a 10.1% increase in 2016, and PEI showed 9.7% growth in the number of producers enrolling. Alberta is next with 6.3% growth in 2016.
- Increases in BC have leveled off from the surge of new enrolments in 2015, although overall BC still has the highest enrolment levels, with 42% of all CanadaGAP-certified producers.
- Participation in the four-year audit cycle continues to decline, in favour of the annual audit option. Only a quarter of all program participants are now enrolled in Options A1 and A2. This compares to 30% of program participants in 2014, and 50% in 2011.
- Enrolments in Option C (annual audit) are now close to 50% of all program participants.
- Group certifications remain stable at 24% of all enrolments, almost on par with 23% in 2015.
- This year again saw higher than average retirements as the established farming population ages. However, the growth in

enrolments more than offset withdrawals from the program in 2016.

- For the purposes of analyzing participation trends, enrolment figures are broken down by five crop groupings:
 - o Tree and Vine Fruit
 - o Field Vegetables
 - o Potatoes
 - o Small Fruit
 - o Greenhouse.
- Total participation in CanadaGAP is 100%. The proportion of that total occupied by each crop grouping is presented above and in the detailed program statistics in the annual report on the CanadaGAP

website.

- The potato and combined vegetable sectors each now represent 18% of producers participating in the program. Small fruit represents a slightly larger proportion at 20% of all enrolments.
- Participation levels remained the same as in 2015 for the greenhouse and leafy vegetable sectors, respectively at 8% and 6% of all program participants.
- The proportion of certified companies from the tree fruit industry declined slightly, from 33% of all producers in 2015 to 30% in 2016.

CanadaGAP-Certified Brokers

In April 2015, CanadaGAP certification became available to fresh produce brokers under Option D. Six produce brokers are now CanadaGAP-certified.

Audit Trends

- The number of CanadaGAP Audits (for Options A1, A2, C, D, and Group Management System audits) is presented in the chart above
- In addition each year, 70 to 100 farms that belong to groups are audited.

What's Ahead for 2017?

- Completion of full Government Recognition
- Unannounced Audits
- Additional GFSI Auditor Competency assessments
- Changes to 2017 Manuals – key revisions to come into effect April 1, 2017
- Changes to 2017 Audit Checklist – new passing score will be 85%, effective April 1, 2017.

Heather Gale is executive director, CanadaGAP Program, CanAgPlus.

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FOCUS: FOOD SAFETY IN THE VALUE CHAIN

Lessons learned from recent *Listeria monocytogenes* outbreaks in the United States

KAREN DAVIDSON

By now, you would think that the scientific world would have figured out *Listeria monocytogenes* (Lm), the pathogen responsible for virulent food-borne poisoning. Jennifer McEntire is an expert on this pathogen, but even after being in the trenches for 16 years, she admits, “It always surprises us.”

After several *Listeria*-related recalls and outbreaks associated with fresh produce, and notably a 2014 outbreak of Lm in caramel-coated apples in the U.S., Dr. McEntire’s microbiology expertise has been brought to bear as the new vice-president safety and technology for the United Fresh Produce Association. She joined the Washington-based association in July 2016, and is co-leading a joint working group between United Fresh and the Produce Marketing Association (PMA).

To decrease the risk in fresh produce, the group is collaborating on:

- policy that is science-based and risk-based
- research that is specific to Lm needs in fresh produce
- education and awareness about best practices, specifically sanitary design

The shocking deaths of 11 people in the candy-coated apple case -- along with other recalls and outbreaks associated with

historically ‘low-risk’ produce -- precipitated this new focus. The produce industry could not have foreseen that apples would be a food safety risk, but researchers discovered that once an apple is poked with a dipping stick, a crevice is created for the pathogen to multiply, especially if left at room temperatures.

“What we’ve learned is that it’s not the food but the food practices that cause a problem,” says McEntire. “Where it’s cool and wet, that’s where *Listeria* loves to grow.”

Before the apple case, tainted cantaloupes in Colorado caused the death of 30 people in 2011, the most deadly *Listeria*-related outbreak in the U.S. in 50 years. This unfortunate track record has spurred the fresh produce industry to look to the meat industry for some lessons. In Canada, ready-to-eat meat tainted at a Maple Leaf Foods plant in 2008 remains a stark reminder of what can go wrong.

A broader issue is sanitary design of equipment and facilities. Currently, brush rollers are often used to slow down movement of produce on a packing line, but they may harbour Lm. Flooring material is another suspect. Earlier this year, inspectors found a problem in a California fresh produce plant. One of the swabs came back positive for Lm. It had been collected from the blade of a squeegee that pushes excess

water into the drain on the floor.

To address these concerns, United Fresh helped sponsor a summit this past fall of 15 equipment manufacturers and 16 fresh-cut processors to discuss re-engineering processes and solutions for the future.

“We recognize that there will be financial commitments and that it will take years to convert, but let’s identify the highest risks and break them down into solutions,” says McEntire. “You can’t manage the risk if you don’t understand where the risk is.”

Some of the issues are as simple as using proper detergents and sanitizers and verifying that they have been used properly. Cracks in the floor and areas with pooling water are first places to swab for Lm.

The Food and Drug Administration (FDA), in issuing rules based on the Food Safety Modernization Act, expects facilities to manage the risk of environmental pathogens such as Lm. If you’re a processor, or in some instances a packer, you must comply with the Preventive Controls Rule. Under this rule, operators must evaluate the risk of Lm and may reach the conclusion that they need to be more aggressive in their environmental testing. Many operators will evaluate their facilities and realize that sanitation preventive control is needed to protect their products and their customers.



Expensive yes, but cheaper than a produce recall. The United States has a zero tolerance for Lm – stated as the absence of Lm in 25 grams of product. The international standard is much higher. These standards matter to Canadian exporters whose produce must meet U.S. regulations.

McEntire, along with counterparts at the Canadian Produce Marketing Association, are members of the International Federation of Produce Standards. *Listeria* is a global problem so scientific information is shared with the associations of member countries

Trained as a food microbiologist, McEntire never imagined that a career could be built on this one pathogen. Here she is, at the intersection of food safety

and public policy. In the future, she looks to the promise of whole genome sequencing which identifies the pathogen with an incredible degree of specificity. Why does this matter? If laboratory technicians can characterize the exact pathogen associated with an outbreak, then they can compare it to a database to begin to identify a potential source(s) – either food types or facilities where this fingerprint has been found before.

“FDA is enamoured with this technology,” she says. “The evolution of an outbreak investigation is important in managing a major public health issue.”



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FOCUS: FOOD SAFETY IN THE VALUE CHAIN

Where did CanadaGAP come from?

HEATHER GALE

By now, the CanadaGAP food safety program for fresh fruits and vegetables is well known in the industry. But fewer people are familiar with where it came from and how it got started. The program has a compelling history and a course of development that is unique among internationally recognized food safety programs.

CanadaGAP arose from a need identified by fruit and vegetable producers themselves. In the 1990s, a number of food safety outbreaks started gaining media attention, especially in the United States. Several incidents were associated with fruits and vegetables, including raspberries imported from Guatemala, strawberries from Mexico, and tomatoes grown in South Carolina. Concerns about food safety started to increase among consumers, retailers, processors and food service companies. In the business-to-business environment, buyers began looking more closely at the companies supplying them with product.

At first, customers asked their suppliers to follow buyer-specific protocols for food safety. The requirements varied considerably, and sometimes conflicted. To verify compliance, some buyers audited their suppliers through retailer or processor visits, referred to as “second party” audits. Others used a third party to confirm that suppliers had the required food safety practices in place. Those customers usually had a list of approved auditors, meaning that one audit was not typically acceptable to all customers. If a producer was supplying a number of customers, the producer could undergo multiple second or third-party audits, to demonstrate compliance with standards that often did not align. The cost and burden of those audits were becoming increasingly onerous for producers. Differences between the various standards also raised questions and caused unnecessary confusion in the industry.

In Canada, fresh fruit and vegetable producers and packers brought these issues to the attention of their national trade association, the Canadian Horticultural Council (CHC). The CHC responded to these concerns by seeking a mandate from its members in the late 1990s to develop a national on-farm food safety program for horticulture in Canada. The vision was to create ONE auditable standard that would be acceptable to ALL buyers. Funding was available from the federal department of agriculture to fund development of a program that could be implemented by fruit and vegetable suppliers across the country. At the same time, the Canadian Produce

Marketing Association (CPMA) undertook a parallel initiative for fresh produce repackers and wholesalers.

The program being developed had to meet a number of criteria:

- The requirements had to be based on HACCP (Hazard Analysis and Critical Control Points)
- The requirements had to be reviewed and deemed technically sound by Canadian federal and provincial governments, under the Canadian Government Food Safety Recognition Program led by the Canadian Food Inspection Agency.
- The standard had to be rigorous and acceptable to buyers (retailers, processors and food service customers) both inside and outside Canada.
- The program had to be credible to industry, engage producers in its development, and reflect relevant on-farm practices.
- The requirements had to be auditable.
- The requirements had to be clear, descriptive and straightforward, to streamline the audit process and to help producers understand how to meet the standard.

Once the decision was made to embark on this path, the key goal was to engage as many industry participants and stakeholders as possible in the design and development of the program. Coordinated by the CHC, eight commodity-specific working groups, including producers, packers and processors who volunteered many hours of their time, laboured over the contents of the standard for five years. The goal was to reflect the realities of farming and yield a complete food safety toolkit that would be useful to producers, packers and other handlers of more than 150 fruit and vegetable crops.

Once the standard was complete, it underwent review and was deemed technically sound by provincial and federal governments. At that point the industry made the decision, through a resolution adopted unanimously by CHC members, to build and offer a certification system by which producers could become “CanadaGAP-certified.” The initiative was founded on the principles of providing a service to growers at the lowest possible cost to industry. That would be achieved through managing resources prudently, leveraging available partnerships, and streamlining the audit and certification process as much as possible through careful program design.

Launched in 2008, CanadaGAP certification was



This asparagus packing line is set up to meet CanadaGAP food safety standards. Photo by Glenn Lawson.

soon internationally recognized after successful benchmarking by the Global Food Safety Initiative (GFSI). In 2012, CHC and CPMA joined forces to establish an independent corporate entity dedicated solely to managing the CanadaGAP program. This corporation, CanAgPlus, administers the program on a not-for-profit basis and closely follows its original mandate. The operation is self-sustaining, and the annual fees paid by growers have remained stable since the program's inception.

Unlike other food safety programs that were developed by

customers and simply imposed on producers, the CanadaGAP program was driven by producers themselves, who played a key role in its development. What makes CanadaGAP special is its ground-up, rather than top-down, approach. No other program incorporates its standard in a full and freely accessible user manual. In addition to setting out program requirements, the manual offers acceptable procedures to follow and explains the “how” as well as the “why.” The toolkit includes a full set of templates for record-keeping, complemented by a range of checklists, examples and

other resource materials. CanadaGAP is also unique in the technical soundness and credibility afforded by its government-reviewed generic HACCP models. The management of the certification program is based on a member-driven, not-for-profit model. Its reason for being continues to revolve around promoting adoption of food safety practices by fruit and vegetable suppliers at the lowest possible cost to the industry.

Read more about our producers and some of their “Success Stories” at www.canadagap.ca

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FOCUS: FOOD SAFETY IN THE VALUE CHAIN

Keep food safety fresh on a daily basis

KAREN DAVIDSON

When the CanadaGAP program surveyed its customers earlier this fall, 63 per cent of respondents complained about the burden of paperwork. It's onerous. It's time-consuming. And it's important.

Michael Van Meekeren agrees. He, his brother Stephen and nephew Harrison manage 125 acres of apples in the heart of Nova Scotia's Annapolis Valley. They also operate a packing-house, inviting other independent growers to send harvest to their Lakeville, Nova Scotia facility. That means food safety protocols extend far beyond their farm.

"Yes, there is a burden of paperwork, higher than average on the food safety file compared to budgeting or forecasting," says Van Meekeren. "Whether you have a few acres or a thousand acres, it still takes the same amount of effort. We do everything possible to share best practices."

The farm has been CanadaGAP-certified since 2009 to satisfy requirements of major retailers. "We saw where the industry was going and wanted to be on board," says Van

Meekeren.

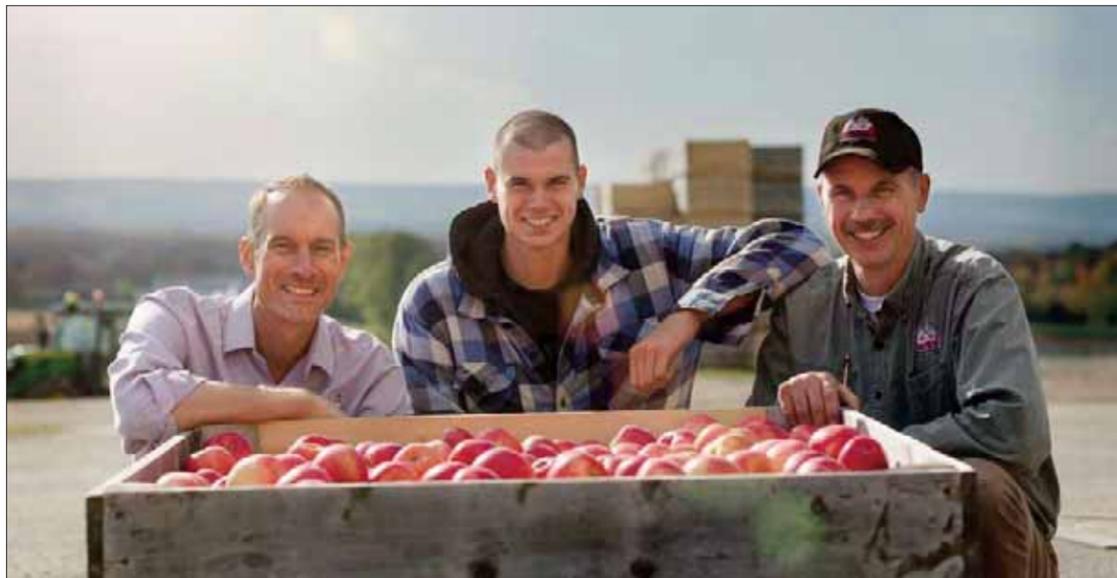
Here are some of their learnings:

1) **Share a common form with all growers** to harmonize record-keeping. For example, the form includes a morning check on all equipment, baskets, trucks.

2) **Use electronic record-keeping** wherever possible. Van Meekeren Farms hired Web Site Advantage Inc., a Prince Edward Island company to customize an existing program used by the Island's potato growers. Food safety staff use a tablet to record data in the packinghouse which is set up with wireless access. The benefit is more accurate data. There is no misinterpretation of handwritten numbers.

3) **Use smartphones and wireless computers** from orchard to packinghouse door. Take photos of product quality, cleanliness of bins and any defects. Share quality checking of farm deliveries immediately with individual growers and employees for day-of-event feedback.

4) **Answer questions in a logical way** through computerized forms that forces the food safety person



L-R: Michael Van Meekeren, Harrison Van Meekeren, Stephen Van Meekeren are testament to a strong food safety culture at their Lakeville, Nova Scotia farm.

not to miss any steps.

"Because this system is immediate, sometimes we'll find an issue that causes us to dig deeper and find an answer," says Van Meekeren. Issues are resolved before they become bigger ones.

5) **Hire a food safety consultant** for pre-season training. About March, prepare producer partners and staff for the upcoming season with any changes in the food safety program and highlight changes requested by customers. For example, hand washing requirements may change from one customer to another. Be precise about use of sanitizers and

hand drying. Find the solution that's common to all customers.

"To keep the refresher course fresh, we add a topic such as *Listeria* so that our workers are not only packing apples, but are knowledgeable about industry issues."

6) **Work with suppliers** to provide the quality assurances you need. For example, crop protection companies now generate PCP numbers, label information and reminders of pre-harvest intervals and re-entry times. In another example, the Van Meekeren's asked a portable toilet company to provide records of potable water and cleaning regimes

according to agricultural standards.

"Any time you're dealing with food, the biggest issues are always around water," emphasizes Van Meekeren. "It's now our second nature to test water and to scan the results into our database."

7) **Lead by example.** Farm workers won't respect food safety if managers don't take food safety seriously. Put systems in place first and then model the behaviour that's expected. For example, create appropriate storage spaces for tools. Expect workers to store ladders and baskets in the designated place to prevent contamination.

CPMA renews its commitment to food safety with a new strategy

In 2015, food safety was identified as a top priority area of focus for the Canadian Produce Marketing Association (CPMA), and members agreed that while

many organizations focus on food safety research, there was very little which specifically addressed the Canadian produce industry.

The following areas were identified in the review process as

key areas CPMA needed to address/manage:

- Management commitment and food safety culture
- Employee training and personnel knowledge and education

- Traceability standards
- Implementation of food safety schemes
- Crisis management
- Research pertinent to the Canadian context

- Support to standardize food safety requirements for retailers
- Consumer education
- Market research

Here is the strategy:

1. CPMA will provide resources for enhancing employee and management knowledge in the area of food safety:

- Areas that require immediate attention include microbiology, risk assessment, trend analysis and commodity-based best practices, which will be accomplished through webinars, guidance documents/summaries and/or by having direct access to experts.

2. As an immediate priority, CPMA will provide support to members on upcoming regulations, as well as management commitment and food safety culture.

3. CPMA will provide funding for applied food safety research that is directly applicable to the Canadian produce industry.

4. CPMA will maintain and/or enhance its role when representing members in government and multi-sectoral/multi-country consultations and/or meetings.

To action this renewed food safety strategy, CPMA is seeking a Food Safety Specialist. A detailed job description can be found at www.cpma.ca/careers

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FOCUS: FOOD SAFETY IN THE VALUE CHAIN

Corrugated packaging is a safe bet

DAVID ANDREWS

In a world that's increasingly fraught with food safety issues and product recalls, packaging is seldom given serious investigative attention. Why is the packaging element overlooked? Likely due to confidence. Packaging has traditionally been among the safest components comprising the complex food distribution chain. Because the term "packaging" is so general in nature, comprising wide varieties and variances under the generic umbrella, it's worth noting that in its simplest definition packaging falls into two categories: primary and secondary.

A primary retail package contains products or produce that has been specifically designed to convey, protect and merchandise. Familiar examples include bottles or Tetra Paks of fruit juices, clam shell packs of fresh-picked berries, or corrugated boxes of harvested tomatoes or peppers. Each of these primary packaging examples comes into direct contact with the food or product to be consumed.

In this instance, a secondary package would be the shipping unit containing several primary packages, with corrugated boxes high among the most common examples. As secondary packaging generally does not come into contact with food, when addressing food safety issues it is the primary packages and their suppliers that receive close attention.

Throughout their manufacturing processes, suppliers have a social and legal obligation to ensure that their output consistently meets or exceeds all food safety regulations and standards. Buyers, in turn, must be aware of the risks involved if they are not assured that their primary packages perform to standards.

Throughout the Canadian corrugated manufacturing industry, the processes that produce a box are essentially identical, whether for primary or secondary applications. The industry has gone to great lengths, and spared no expense, to produce packages which can be certified as "food safe."

These processes are not "switched on or off" from order to order, but are maintained and monitored consistently within every facility where high quality food-grade corrugated boxes are manufactured. Factors monitored and recorded during production cover all physical properties of incoming supplies including, most notably, container board, the natural product that is the basic component of every corrugated box.

Recently, the corrugated box industry in North America commissioned a national survey of the entire range of packaging products made from both virgin and recycled container boards produced in both kraft (brown) and white versions.

Undertaken by the U.S.-based toxicology laboratory, Haley and Aldrich, their results -- once again -- verified the desired sanitization characteristics of corrugated. The study reconfirmed that, during manufacturing, the combination of high temperature heat over time destroyed all bacteria naturally occurring in the processes.

A synopsis of that report appeared in the July 2016 issue of Packaging World and can be accessed via the Canadian Corrugated and Containerboard



Photo by Glenn Lawson

Association's web site: [www.Canadian Corrugated and Containerboard Association](http://www.CanadianCorrugatedandContainerboardAssociation.com). Select: In The News / ISSUES and scroll to the article.

An additional key benefit of corrugated packaging is its intrinsic ability to feature information that can assist traceability. QR and Bar codes, as well as important domicile information

for the originating farm, can be readily and inexpensively added to a corrugated box. As our industry's current advertising campaign advocates, "It's More Than Just A Box . . . It's a Billboard."

Want to add the CPMA's "Half Your Plate" logo to your box? We suggest adopting a one- or two-colour version of this graphic that will show your

commitment to the campaign while your corrugated boxes wend their way from the farm to the store, and often to the home.

For food safety with merchandising power for the grower, the corrugated box is a safe bet.

David Andrews is executive director of the Canadian Corrugated and Containerboard Association (CCCA).

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Ontario Ministry of Agriculture, Food and Rural Affairs

New potato module for Ontario CropIPM

DENNIS VAN DYK

Integrated pest management or IPM is more than just a buzzword for Ontario vegetable growers. IPM is about using the tools available to solve pest problems while minimizing risks. It's a way of efficiently

using pest control products to maximize efficacy, minimize the risk of resistance while at the same time providing an economic benefit to growers. An important principle of IPM is knowing about the pests you are trying to control. The more information you have, the better you can target your manage-

ment approach.

This is where Ontario CropIPM comes in. Ontario CropIPM is a free online tool available to growers, scouts and consultants to improve their knowledge of IPM for Ontario crops. This fall we are excited to have added a potato IPM training module to add the

growing list of crops. Other vegetable crops modules available include asparagus, brassica crops, cucurbits, onions, peppers, sweet corn, and tomatoes along with modules for fruit crops as well.

Each CropIPM module includes information on the common insects, diseases, disorders and weeds along with pictures and a summarized or detailed write-up. Each pest has an "often-confused with" section where you can view side-by-side photos of insects, diseases and disorders that cause similar symptoms. For growers and IPM scouts there are scouting tips, monitoring techniques, pest scouting calendars and insect or disease spray thresholds. There is also general information on soil diagnostics, weed ID, herbicide

injury, and links to additional resources.

Ontario CropIPM can be found at ontario.ca/cropIPM. Make sure to bookmark the page today and use it as a resource for any pest-related issues in the future. Browse through the site over the winter and learn a little more about these pests, you may thank yourself next season.

Remember, it's tough to farm from the seat of your truck, so get out and scout your fields regularly. Just be sure to always observe those re-entry intervals!

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

Phosphorus – what do you know?

JANICE LEBOEUF

Have you got any of the OMAFRA Best Management Practices books on your shelf? Have you ever picked one up somewhere and have been meaning to look through it? I just spent a few minutes looking at Best Management Practices for Phosphorus (which is only 8 pages long) and Best Management Practices for Reducing Phosphorus from Agricultural Sources – also known as A Phosphorus Primer.

No doubt that they are topical resources. For one thing, you might be interested in a stewardship project on your farm to reduce phosphorus loss. If you're in the Lake Erie, Lake St. Clair, or Lake Huron southeast shores watersheds, you might be accessing Great Lakes Agricultural Stewardship Initiative

(GLASI) funding. And no doubt you've noticed that phosphorus, whether agricultural or from other sources, has been making the news regularly, too.

In these two BMP books, you can find a lot of practical information on managing phosphorus on your farm. There is also background information that could help answer your questions about phosphorus movement and phosphorus loss – or help you to answer questions that you might get from other people.

For example, do you know where phosphorus is found in watercourses or lakes? Is it in solution in the water, attached to sediments, or in aquatic plants and animals? In fact, it's found in all of these places.

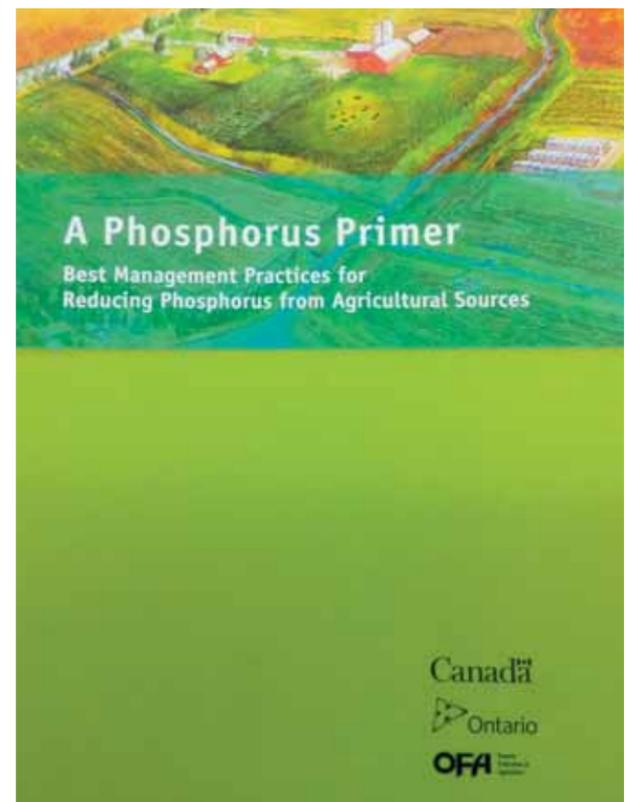
In soil, is phosphorus only found in agricultural soils where fertilizer phosphorus or soil amendments have been added? No, phosphorus is found naturally in soils and is

present on the surface of soil particles, in soil minerals, in the soil solution (that's the water in the soil), and in plants and animals living in or on the soil.

Which of these management practices can be used to reduce phosphorus loss from crop fields? Soil testing, installing erosion control structures, keeping the soil covered all year long, improving soil health, or calibrating fertilizer application equipment? I'm sure you answered that one right – all of these management practices can help keep phosphorus on your farm.

Want to read more? You can order the free Best Management Practices books online – just search for Service Ontario Publications or call 1-800-668-9938 to order by phone.

Janice LeBoeuf is vegetable crop specialist Ridgetown, OMAFRA



Vegetable grower regrets

JANICE LEBOEUF

As much of the 2016 vegetable harvest winds up, are there things you wished you had done differently this year? If you are a vegetable grower, I mean. The rest of you may have regrets, too, but I'm not talking about those today.

For many vegetable crop problems, prevention is the only approach and there are always situations where a serious, but

preventable problem shows up when it's too late to do anything about it.

Some examples of this are anthracnose fruit rot in tomatoes and peppers, downy mildew in cucumbers, and cercospora leaf spot in sugarbeets. How can you get better at preventing problems? One thing I would suggest is to take some time in the off-season to read up on the common pest problems in your crops. The more you understand the pest, the better. For

example, remember that anthracnose can infect tomato fruit at almost any stage. An infection may start only a few weeks after bloom, but it is not visible. It will only show up when the fruit starts to ripen. But you can't cure that infection. It had to be prevented, back when the fruit were small and green.

Some handy resources to learn more about vegetable pests in Ontario are online at ontario.ca/cropIPM and at

ONvegetables.com.

The second thing I would suggest it to review what you know about pesticide resistance. Understanding how resistance develops and how to prevent it is the most important pest management work you'll ever do. The first herbicide resistant weeds were found in the 1950s. But we learned how to manage resistance. That's why we don't have much of a problem with resistant weeds today – wait a minute – yes we do! Clearly, we

have not all been following the basic methods for resistance management. Take some time this winter to get a better understanding and put that knowledge into practice.

So remember, you can learn more about vegetable pests and about resistance management online at ontario.ca/cropIPM and at ONvegetables.com.

Janice LeBoeuf is vegetable crop specialist Ridgetown, OMAFRA

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Flea beetle feeding damage found on carrots in Ontario



Figure 1. Large amounts feeding damage caused by flea beetle larvae



Figure 2. Flea beetle feeding damage with a trail of smaller feeding sites.



Figure 3. Sunken, horizontal, elliptically shaped lesions typical of cavity spot caused by Pythium spp.

DENNIS VAN DYK

For the first time in Ontario, feeding damage caused by flea beetle larvae has been confirmed in a commercial carrot field. The damage is characterized by irregularly shaped cavities along the length of the taproot (Figure 1). A trail

of smaller feeding sites can sometimes be seen travelling down the length of the carrot (Figure 2).

Flea beetle was recently identified in California in 2012 as the cause of damage found in a number of carrot fields and has since become a more widespread issue. Prior to 2012, it is hypothesized that feeding

damage was being misdiagnosed as cavity spot lesions caused by Pythium spp. which causes very similar damage (Figure 3). Accurate diagnosis is essential because management of flea beetle or cavity spot is very different.

Like other root vegetables such as potatoes, flea beetle larvae tunneling and feeding

damage render the carrot unmarketable. Flea beetle adults do feed on the above-ground carrot foliage but are not considered an economic pest.

As this is a new pest to carrots there are no registered products for control in Ontario at this time. We will be monitoring carrot harvest this

fall to determine the extent of damage. If you think you may have an issue with flea beetle, please contact Dennis Van Dyk at (519) 826-4587.

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

Watch for vegetable programs at OFVC

Join us for the Ontario Fruit and Vegetable Convention at the Scotiabank Convention Centre in Niagara Falls on February 22-23, 2017. Planning for the vegetable sessions is currently under way. Sessions of interest to vegetable growers include:
Wednesday February 22nd, 2017

Morning program (9:30-11:30 am)

- Potatoes
- K, Mg, Ca

Afternoon program (2:00-4:00 pm)

- General Vegetables
- Soil Health
- Irrigation
- Waste Management

Thursday February 23rd, 2017

Morning program (9:30-11:30 am)

- Vegetables – Sweet Corn
- Soil Pest Management
- Business I

Afternoon program (2:00-4:00 pm)

- Vegetables – 4Rs
- Nematode Management
- Business II

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BITS AND BITES

Advancing the Canadian tender fruit industry

One of the main focal points of this collaborative research project is on changing the product mix for Ontario tender fruit growers. Vineland Research and Innovation Centre (Vineland) is evaluating plum, peach, nectarine and apricot trees from the University of Guelph's breeding program in terms of superior varieties that meet consumer preferences. The University of Guelph's (U of G) tender fruit breeding program has been progressing well during the 2016 season. Its main goals include the identification of nectarine varieties that will meet industry demands, early season peaches with acceptable fruit size and quality, and black knot-resistant plum varieties.

Vineland Research and Innovation Centre (Vineland) has been actively engaged with the evaluation of tree varieties showing a commercial potential through the Tender Fruit Evaluation Committee (TFEC). TFEC is comprised of growers, nurseries, marketers and retailers whose role is to provide guidance on the release of new fruit tree varieties from U of G and Agriculture and Agri-Food Canada's (AAFC) breeding program. During the 2016 growing season, the Ontario Tender Fruit Growers held weekly tours of Vineland's Victoria Avenue Research Farm test blocks to view trees, sample fruits and provide constructive

feedback on a weekly basis. The information collected assists TFEC in determining which selections should be advanced for on-farm commercial grower testing.

To date 1,800 test peach, nectarine and pear trees have been planted in Ontario at 12 commercial grower sites of which 100 peach, 430 nectarine and 100 pear test trees were planted in Niagara during the spring of 2016.

Selections planted in 2014/2015 were field evaluated and rate of bloom, winter injury, pest, disease and harvest data were recorded. Further evaluations in 2017 will help determine if any of these new varieties look promising and whether to advance or cull it. In 2016, 10 new AAFC pear selections were planted at Vineland in the second stage testing block. These selections from the breeding block look promising, however, a few more years of evaluation will be needed to determine their commercial appeal.

In August 2016, propagation of two Japanese plum varieties took place at a nursery outside of the Plum Pox Virus (PPV) quarantine zone. These trees will be available to OTFG growers for planting in 2018. Different locations across Ontario will be required to determine the susceptibility of these selections to black knot.

The Canadian Food



Blue Plums

Inspection Agency's (CFIA) Centre for Plant Health Laboratory released a limited amount of certified, virus free budwood for one peach and four nectarine selections from the U of G. A nursery outside of the PPV zone has been contracted to grow trees that will be used as a future source of budwood. As budwood quantity increases, these selections are expected to be released for commercial propagation in 2018.

The remaining U of G and AAFC apricot varieties located at Vineland's Research Farm were evaluated over the last three seasons. Based on TFEC evaluations, seven selections look promising and Vineland has sent the varieties' budwood to the CFIA's Centre for Plant Health Laboratory for certification. Vineland is hoping that these selections will be available for test planting in the coming years.

In 2016, a sensory evaluation

was conducted by Vineland's Consumer Insights team on the preference of yellow versus white peaches. Details of the study and its findings will be released in the winter of 2016. Final results indicated that most surveyed preferred yellow peaches although nearly 30 per cent preferred white peaches. The study was performed at only one location and may need to be expanded. Nevertheless, white peaches remain a niche product.

Japanese plum, pear, apricot, nectarine and peach test trees are available to commercial

growers for 2017/2018 plantings including orchards outside of the PPV zone.

We would like to sincerely thank all of the growers who are assisting in commercial testing and evaluations of newly selected varieties arising from this program.

For more information contact Michael Kauzlaric, technology scout & grower outreach 905-562-0320 x755. Email michael.kauzlaric@vinelandresearch.com

Source: Ontario Tender Fruit Newsletter

Announcing HW624 Pear

Canadian Plant Breeders' Rights #4402
Developed by Agriculture and Agri-Food Canada in Harrow and Vineland

Vineland Research and Innovation Centre (Vineland) is leading the commercialization of the HW624 pear in North America.

Vineland will distribute information packages to organizations interested in participating in a Request-for-Proposal process to obtain rights to propagate, plant, grow and market this variety in North America.



For more information contact:
Michael Kauzlaric, Technology Scout and Grower Outreach
michael.kauzlaric@vinelandresearch.com | 905-562-0320 x755



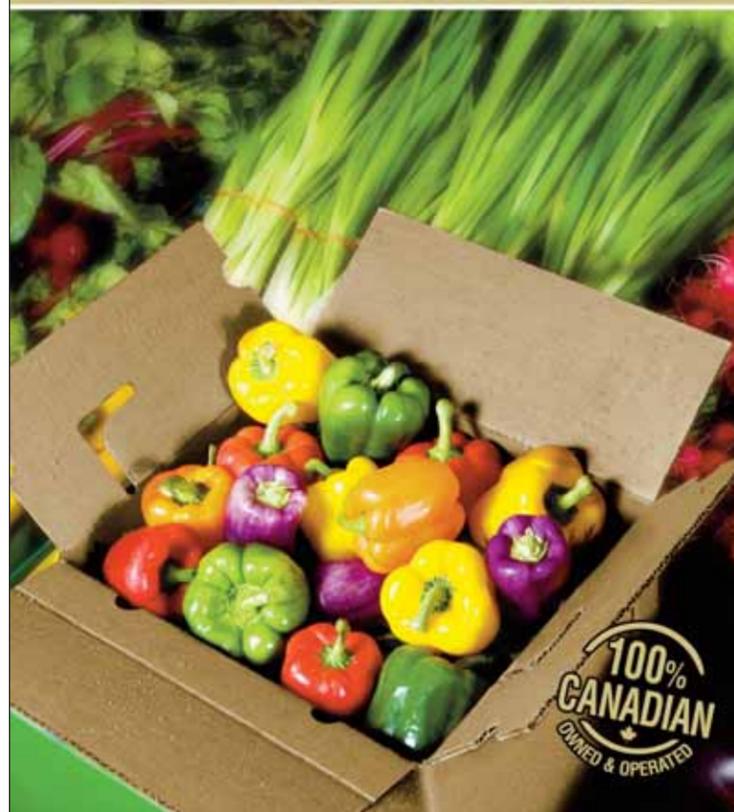
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BITS AND BITES

Better business management pays for horticulture

Study proves link to increased profitability, higher incomes

LILIAN SCHAER

Guelph –New research has identified the top seven habits of Canada's best farmers and for the first time, illustrated the direct connections between business management planning and better profitability.

The Dollars and Sense study, commissioned by Agri-Food Management Institute (AMI) and Farm Management Canada, surveyed 604 farms nationwide in grains and oilseeds, beef, hogs, poultry and eggs, dairy, and horticulture.

Canadian farm businesses in the top 25 per cent financially out-perform those in the bottom 25 per cent by a wide margin: 525 per cent increase in Return on Assets (ROA), 155 per cent increase in Gross Margin Ratio, and 100 per cent increases in Return on Equity (ROE) and Asset Turnover.

“We know that management matters, but this is the first time we’ve been able to clearly establish the positive impact that business management practices can have on farm income,” says AMI Executive Director Ashley Honsberger. Specific to horticulture, the top quartile showed a 14.6 per cent ROA compared

to 1.3 per cent in the bottom quartile; 55.6 per cent Gross Margin Ratio compared to 24.7 percent; 31.2 per cent ROE compared to 12 per cent; and 27.8 per cent Asset Turnover compared to 9.7 per cent.

Continuous learning is the leading driver of farm financial success, followed by keeping finances current; seeking the help of professional business advisors or consultants rounds out the top three. The next most impactful drivers included: having a formal business plan, knowing and monitoring cost of production, assessing and managing risk, and using budgets and financial plans.

Canadian horticulture growers use some of these habits more than the other farm types. For example, 38 per cent have a formal business plan, significantly ahead of the 25 per cent average for all other farmers, and 26 per cent have a human resources plan, again considerably higher than all other farmers at only 17 per cent.

Thirty-eight per cent have a financial plan with budget objectives, compared to only 33 per cent of all other farmers, and 31 per cent have a formal succession or transition plan, ahead of the 27 per cent average of all other farmers.



Honsberger advises growers to consider starting with just a single activity instead of trying to tackle all top habits simultaneously. Pledgetoplan.ca offers online business management activities for each season with resources and stories of producers who’ve gone

through the process.

The study, by Ipsos Ag and Animal Health, was funded through Growing Forward 2, a federal-provincial-territorial initiative.

Lilian Schaer for Agri-Food Management Institute.



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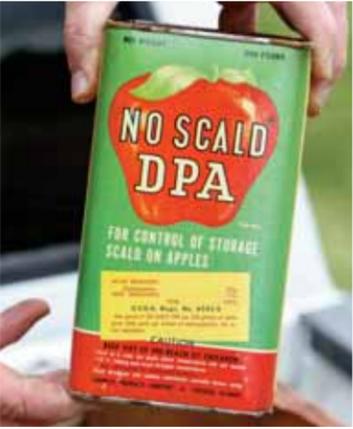
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BITS AND BITES

Kudos to Ontario agri-food innovators

Now in its 10th year, the Premier's Awards for Agri-Food Innovation Excellence are highly anticipated in the agricultural community. The awards recognize and celebrate agri-food producers, processors and organizations. Winners announced to date are:

CleanFARMS Inc. - Etobicoke



Since 1989, CleanFARMS has been helping farmers dispose of empty pesticide containers, providing 170 collection sites at agricultural retailers across the province. Now the not-for-profit organization has turned its attention to another form of farm waste, empty seed and pesticide bags that often end up at the local landfill. Instead of sending the bags to a landfill, CleanFARMS sends them to a waste-to-energy facility where they are disposed of in an eco-friendly manner. What started off as a pilot program in 2014 and 2015 has proved hugely successful and today the voluntary, industry-funded program has been rolled out across the province.

CleanFARMS has been welcomed by farmers across the province and they are already fielding requests to expand the program across the country.

Greenbelt Greenhouse Ltd. - Gormley

Microgreens are booming with popularity, however hand-harvesting these tiny plants can be time-consuming. That is why Greenbelt Greenhouse has explored ways to mechanize the process. Growers were able to modify a bandsaw originally designed for field-grown salads to be used on thicker-stemmed microgreen crops. For thinner-stalked microgreens, growers worked with a Toronto company to engineer a tabletop harvester with an oscillating blade. Now, 90 per cent of their greens can be mechanically harvested resulting in labour costs savings of 80 per cent per kilogram harvested. The chilling process has now been reduced to five minutes, resulting in increased shelf life for the greens. Thanks to greater efficiency, Greenbelt Greenhouse has doubled their production, giving more

Ontarians a fresh alternative to imported salad greens.

Siloam Orchards - Uxbridge

This Durham Region nursery sells hundreds of rare apple varieties that cider producers can purchase to produce a unique variety of cider products for their consumers. Siloam Orchards produces 13 varieties of crab apples, dozens of

disease-resistant options and more than a hundred heirloom seedlings. With options ranging from Goldrush to Ashmeads Kernel to King of the Pippins, Siloam Orchards is giving Ontario's cider producers a massive menu of choice to create truly one-of-kind offerings.

Ontario Fruit and Vegetable Growers' Association - Guelph

Each year, Ontario growers lose more than \$24 million of fruit each year to wild birds. Looking for a better way to protect crops, the Ontario Fruit and Vegetable Growers' Association partnered with researchers from Brock University to install American kestrel nesting boxes near orchards and corn fields. These birds of prey feed on smaller bird species, as well as insects,

mice and voles, offering a natural approach to damage control. The low-cost, low-maintenance method is effective: the number of nuisance birds dropped 20 to 30 per cent on operations where the nesting boxes were installed. And while farmers enjoy bigger harvests, they can also feel good knowing that they're helping to reverse the decline of kestrels in Ontario.

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MINOR USE

CRAIG'S COMMENTS

Calling a spade a spade

CRAIG HUNTER
OFVGA

Back in the 1970s, there was an undue amount of illegal and possibly dangerous use of pesticides. Much of that came from ignorance, some from arrogance, and all of it from greed. When serious outcomes arose on occasion they were mostly ignored by those who caused the problems. Even poisonings and death were included in these denials of responsibility.

At that time a general manager of a farm group actually came late into an annual meeting and gave a speech to his assembled members that led to dead silence. In that speech he related that he had just been contacted by federal staff to tell him that three people were dead from eating contaminated produce grown by his members. The culprit was an unregistered highly toxic insecticide on that crop. Charges were to follow. He was horrified on their behalf that someone had done this.

Now for the background: Growers had been using this insecticide illegally for some time as it was effective for a pest with no other effective control registered. He knew it, and they all knew the whole industry was using it and could be nailed, but they used it anyway.

Everyone in the room wondered who might get caught. (Could it be them?) Many may have also wondered about the sick and dead victims. (Let's hope so.)

Then the manager dropped the real bombshell. He

admitted that what he had just said was all made up to scare them out of their bad pesticide uses. The room gasped and then relaxed. Some even got angry with him for staging such an activity!

Unfortunately, the brazen mis-use continued the next day as if all was okay. (because they had no registered control anyway.)

A lot has changed since those days -- or has it? Yes, we have the Grower Pesticide Safety Courses. Yes, we have On-Farm Food Safety Certification. In many provinces there are legislated Health and Safety provisions for farm workers.

Yet, when it comes to responsible use there are still some (a very few) 'bad actors' out there. (Fortunately not nearly as many as back then.) Even worse is that they are still being protected by their fellow growers and associations. And they are offered cover by pesticide sales staff, dealers and consultants too who may knowingly sell or encourage such activity. This makes it very difficult for the rest (the vast majority) of the growers when dealing with Health Canada on such things as re-evaluations, post-application exposure mitigation, and more. They too are well aware of such illegal activities. At least eight growers were charged in the past year for not following the label. How does PMRA accept our assurances that growers will comply with new measures when some cannot be trusted even with existing labels or record keeping?

By now some readers will have quit reading in denial. Others would be outraged that I would raise such issues so openly. Hopefully the vast majority would recognize that the actions of the few threaten the future of their (our) industry.

It is a different world out there today. The 'shot heard around the world' was fired in Sarajevo in 1914. In those days it took a long time to actually get around the globe. There

was no radio, and the press coverage of foreign events was spotty at best. The result of 'The Shot' however, was WWI.

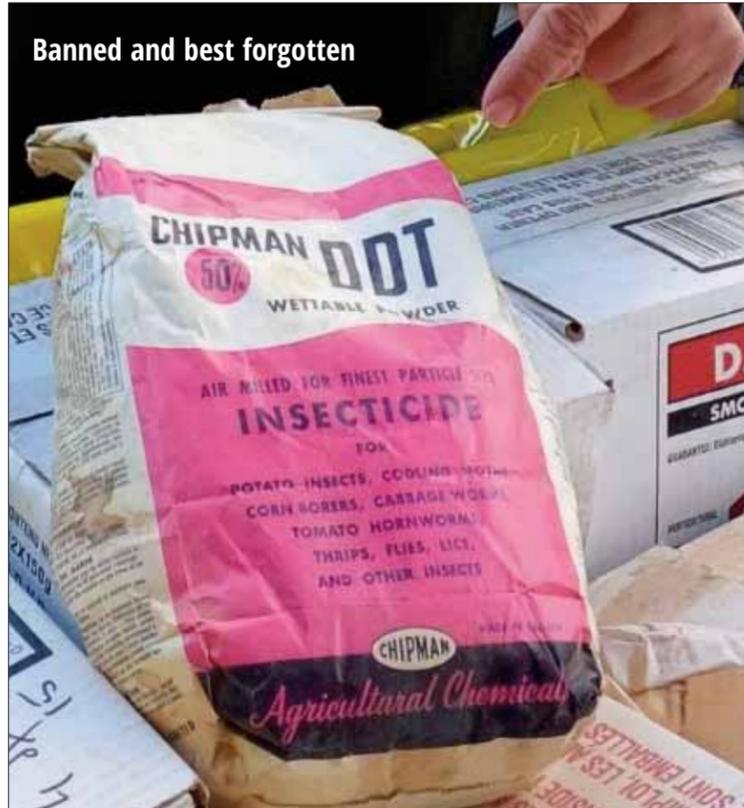
Today the contamination of a few watermelons sets off a firestorm of recalls, produce dumping 'just to be safe' and consumer reaction -- all in a few minutes after the first news release. It takes so little to darken an image, and so much to build it up again. Alar was exonerated of all the claims made against it in 1988. None of the apple growers who lost \$800 million got anything back. It could be re-registered today but the industry will not do so because the negative message still resonates in spite of all facts to the contrary. Do growers not realize that it is not just possible, but inevitable that such a public reaction will recur unless peer pressure is brought to bear by the entire industry to halt illegal activities?

How can some growers feel they can 'make up' their spray records once a year in retrospect? How can they ignore some uses because they know they were illegal? How can they falsify the record, if indeed there is any record?

There are now some excellent ways to get the products registered. We have the most actives registered today than at any time -- ever. Solutions are available! That poor excuse is no longer even to be contemplated. Likewise there are good electronic means of keeping up-to-the-minute records that prove on the spot what you used and where it was applied. The same goes for ensuring things such as re-entry times and pre-harvest intervals have been adhered to. If further guidance on the use of personal protective gear is on a label then it should be followed and noted in the records. The same applies for post-harvest PPE instructions.

Unless and until this can become the norm, we may not see some uses we want, and indeed we will lose some of the uses on many products that we have used for years. It matters

Banned and best forgotten



not that just YOU do everything right. What matters is that until the 'bad actors' are brought into line, everyone will lose these uses.

There is actually a background reason for this column. I tried to point out these shortcomings by penning a short message to a meeting this fall. The firestorm that followed was along the lines of the aftermath of the 1970s meeting. Many were outraged that I would seemingly be 'picking' on 'their' industry. There was even some who felt I favoured one industry over another. (I hope not many felt that!) In fact I am concerned about EVERY sector because they all stand to lose -- big time. Their former allies at Agriculture Canada no longer influence PMRA. Even if they could, they would not in all conscience try to protect the bad actors. Just like the dilemma in Viet Nam when the Viet Cong looked exactly like the South Vietnamese, the bad actors look like any other grower out there. How can you protect just the good guys (or go after the bad actors) when you can't tell who they are? The 'good guys' will only be able to differentiate themselves with

good records that bear scrutiny, ship produce that meets every requirement for food safety including pesticide residues, and have excellent worker safety training on their farms. Most importantly they and their associations should turn their backs on all those who risk their livelihoods. If the salesman tries to promote an illegal use-- drop him/her fast. He/she is only there to help themselves, not you! Openly question when statements condoning illegal use are being made. Be willing to spend more time to not only do the 'right thing' but to document it, and make it available for inspection if need be.

Horticulture does so much so well, and by the vast majority they are 'good guys.' We must act together to oust the 'bad guys' if we are going to be able to enjoy the privilege of pesticide use down the road.

And just for the record, I think of the cheaters as greedy, arrogant, and openly contemptuous of the 'good guys.' They are to be despised, not condoned or made heroes of -- by anyone. And, I am willing to say it publicly!



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MINOR USE

Bayer launches Velum Prime nematicide

Bayer CropScience has announced the launch of Velum Prime nematicide, the first non-fumigant nematicide registered for potatoes in Canada.

Velum Prime is a new mode of action and chemical class (pyridinyl ethyl benzamide) for nematode protection. It offers growers effective nematode protection that helps sustain plant vigour and maximize crop yield potential.

“The launch of Velum Prime in Canada provides protection against a yield robbing pest that, for many growers, didn’t have a viable solution outside of fumigants,” says Jon Weinmaster, crop & campaign marketing manager, horticulture & corn at Bayer.

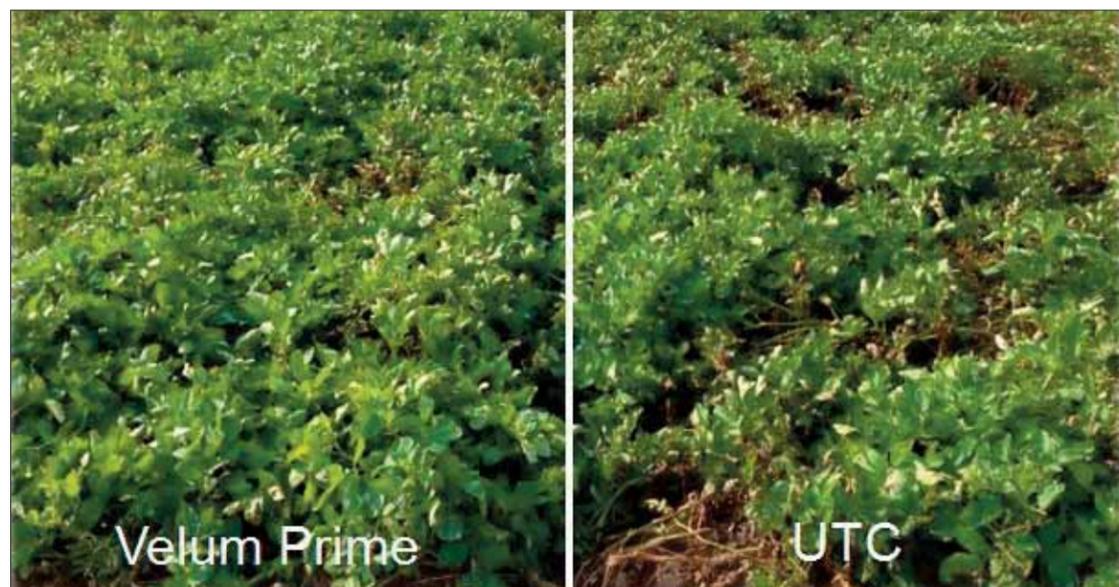
“Potato growers have made

great advances in increasing yields and quality and this tool will help them take it a step further.”

Recent trials of Velum Prime demonstrated consistent yield and quality increases and reduction in plant parasitic nematodes, including root lesion, root knot and potato cyst nematode.

“Velum Prime is another tool for use in a complete nematode management program,” says Jon Weinmaster.

Velum Prime is applied in-furrow at planting. It comes in a liquid formulation that offers reliable efficacy at low application rates making it ideal for use with existing in-furrow application equipment. Plus, applied in-furrow, Velum Prime offers the added benefit of early



These photos illustrate Velum Prime vs an untreated control. Photo courtesy of Bayer.

blight protection.

Available in 4.04L jugs, Velum Prime is easy to apply, with minimal use restrictions, including flexible tank mix compatibility.

Maximum residue limits for Velum Prime applied in-furrow

are in place supporting trade in North America and Europe.

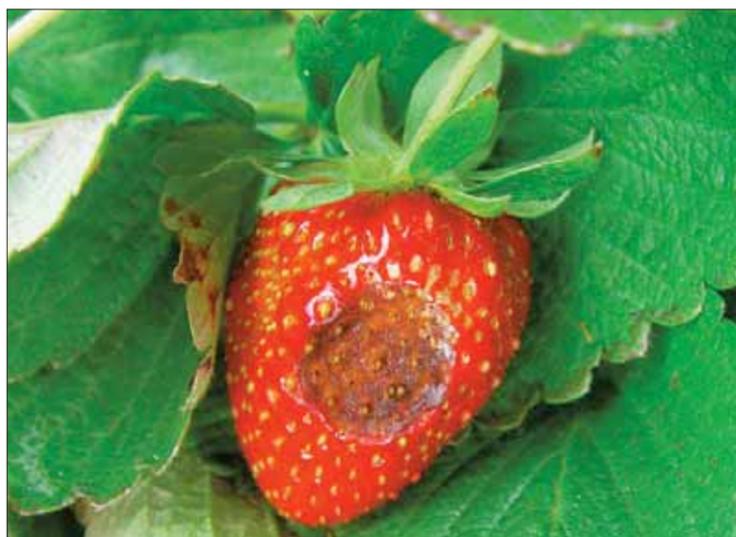
Additional MRLs supporting trade in other key export countries, including Japan, are expected early in 2017.

For more information regarding Velum Prime, growers

are encouraged to talk to their local retailer or visit cropscience.bayer.ca/VelumPrime.

Source: Bayer news release

Integrated management of anthracnose in Ontario strawberries



KEVIN SCHOOLEY

Mark your calendar for Wednesday, February 22, 2017 to hear an update on this research project. The Ontario Berry Growers Association (OBGA) expect to have some interesting results presented by Michael Celetti from the Ontario Ministry of Agriculture, Food and Rural Affairs. This presentation will be part of the berry session at the Ontario Fruit and Vegetable Convention.

The project is evaluating three objectives. The first is testing strawberries infected with Anthracnose for fungicide resistance to the active ingredients in Pristine and Switch. Fifty-plus strawberry fruits infected with *Colletotrichum acutatum* collected from plots not sprayed with the active ingredients are currently being evaluated.

The second objective is to evaluate the effectiveness of the weather-based model developed from a Florida-based system by Weather Innovations

(WIN) to predict anthracnose infection periods in day-neutral strawberries in Ontario. The weather-based model trial was planted in the spring at the Cedar Springs and Simcoe research stations and was evaluated over the summer of 2016.

The final objective is to screen newer June-bearing and day-neutral strawberry cultivars and the selection 403CA43 for tolerance to current isolates of *Colletotrichum acutatum* from Ontario. Plants of 38 newer cultivars and selections from Ontario, Quebec, Nova Scotia, Florida, California, Maryland and the Netherlands were grown from specific-pathogen-tested in vitro plantlets to screen for susceptibility to anthracnose.

Anthracnose has caused millions of dollars in losses over the past five years in Ontario. We are optimistic that findings from this research project will help growers better manage this disease and reduce its economic impact.

This project was funded in part through Growing Forward 2

(GF2), a federal-provincial-territorial initiative. The Agricultural Adaptation Council

assists in the delivery of GF2 in Ontario.

Kevin Schooley is executive director, Ontario Berry Growers' Association.



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Newsmakers



The Canadian Agricultural Hall of Fame inducted the late **Jas. C. (Jim) Bartlett** at a special awards banquet on November 6 at the Royal Agricultural Winter Fair. Dow AgroSciences nominated Jim Bartlett for his career advancing the Canadian horticultural industry.

He was born into the family business – N.M. Bartlett Inc. – and from an early age worked alongside his father Norman. The Bartlett business blossomed under Jim's leadership to become the only national horticultural crop protection distributor in Canada. Serving as president for 17 years until his retirement in 1987, he brought the next generations into the family business.

As the family business grew, Jim advocated tirelessly for the horticulture sector on cross-border importation. He championed the first minor use registration of pesticides program in Canada in 1977, and was an early promoter of the need for new crop protection products to serve the small-acre, high-value crops that comprise Canada's diverse horticulture industry. Jim was chair of the national organization now known as CropLife Canada, and helped create the CropLife Ontario Council. He helped bring what is now the Ontario Fruit and Vegetable Convention to Ontario.

Jim was a visionary, passionate advocate and a respected voice in Canadian agriculture. Eight of his grandchildren are involved as the fourth generations of Bartletts in the business. Jim passed away in 2011, one year shy of the 100th anniversary celebrations of the Bartlett family business.

Left: Son Craig Bartlett attended the Canadian Agricultural Hall of Fame event.

Keith Currie has been elected the new president of the Ontario Federation of Agriculture (OFA). A Collingwood-area hay and sweet corn farmer, Currie becomes the 31st president to lead the 36,000 farm-member organization for a one-year term. Elections for OFA's two vice-president positions voted in **Mark Reusser**, a turkey farmer and re-elected northern Ontario dairy farmer **Peggy Brekveld**. The fourth executive member is dairy and cash crop farmer **Drew Spoelstra**.

Potato growers were honoured at the Royal Agricultural Winter Fair's competition, including commercial tablestock winners **Andrew and Jennifer Tupling**, Melancton, Ontario for their Canella Russets. The 50th anniversary of the Yukon Gold potato was also celebrated with an exhibit sponsored by the Ontario Potato Board.

James Corpuz is the new marketing analyst at the Ontario Products Marketing Commission, taking over the apple and vegetable greenhouse files. He spent eight years with the Chicken Farmers of Ontario, also in a market analyst role.

The United Potato Growers of America have announced that the organization's next president and chief executive officer will be **Mark Klompfen**. Previously, he served as president of the Idaho Grower Shippers Association and before that, had stints with Idahoan Foods, Basic American Foods and Lamb Weston. His life has been dedicated to the potato industry, from growing up on his father's seed potato farm in Montana.

The Ontario Ministry of Agriculture, Food and Rural Affairs has announced **Nathan Stevens** will be joining the Guelph office as manager, horticulture crops on December 5. For the past two years, Stevens has worked as a policy advisor focused on federal-provincial-territorial relations, including the strategic emergency management framework task team. More recently he's worked on the agricultural labour file. He's a graduate of the Advanced Agricultural Leadership Program. In his formative years, he grew up on an Ontario dairy, pig and cash crop operation.

The Prince Edward Island Potato Board presented its Industry Appreciation Award to **Gwen Vessey**, PEI Department of Agriculture at its recent Annual General Meeting.

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