

VALUE CHAIN MATTERS

Asparagus: a shooting star that's lighting up the vegetable industry



Mike Chromczak is proud to be one of the 85 Ontario 'asparaguys' shipping the spring vegetable to local retailers. With his third harvest of 40 asparagus acres underway at Brownsville, he's one example of why this crop is expanding rapidly. After a cold spring, volumes will be at their peak during Ontario's Local Food Week, slated for June 6 to 12. Photos by Glenn Lowson.

INSIDE

A lesson from Earls: know your allies Pg 11

FOCUS: Storage, containers and packaging Pg 14



Fixing the fungicide re-evaluation impasse Pg 22

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KAREN DAVIDSON

From farmers to retailers, everyone is riding the 'asparabus.' Foodland Ontario estimates that 25 per cent of all Ontario retailers had special displays for asparagus last year. Along with rhubarb and greenhouse-grown vegetables, these tender spears are revered as the first taste of spring.

"Asparagus is a good news story," says Ken Wall, chair of the Asparagus Farmers of Ontario (AFO). "Demand is up and consumption is on the rise.

According to recent medical research on colon health, there's a real upside to eating asparagus because of its fibre levels."

Ontario farmers have responded by not only increasing acreage -- from 2,500 to 3,400 acres in the last five years -- but improving marketable yields. Growers of the Guelph Millennium variety are achieving as much as 7,000 to 9,000 pounds per acre. That's almost double the harvest of a decade ago, prior to cultivar and management improvements.

The industry has shown so

much promise that Mike Chromczak has returned to the family farm near Brownsville, Ontario after completing a university degree and seven-year, non-farming career.

Establishing his asparagus stands in 2011 on what was formerly tobacco ground, he is now going into this third harvest with 40 acres. That early success is inspiring him to plant another 15 acres of asparagus plugs this season.

"Every year we see improvements," says Chromczak, who also represents asparagus

farmers on the board of the Ontario Fruit and Vegetable Growers' Association. "I recognize there's been a lot of expansion in the industry, so I'm preparing myself for marketing challenges on the horizon by focusing on quality and efficiency."

What's striking about the asparagus industry is how the 85 Ontario growers have collaborated in recent years. One example is how they pool their resources to buy packaging material in bulk from South America. CONTINUED ON PAGE 3

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AT PRESS TIME...

AAFC announces online portal on future ag policy framework



Ontario ag minister Jeff Leal

Agriculture and Agri-Food Canada (AAFC) has announced a website to seek feedback from stakeholders on developing the next agricultural policy framework. As the first phase of consultation, the website will allow stakeholders the chance to comment on Growing Forward (GF2), the current \$3 billion plan that ends in 2018. This program supports innovation, competitiveness and market development.

The GF2 Business Risk Management suite of programs has provided more than \$4 billion to support producers in times of severe market volatility and disasters.

The next Policy Framework Consultation can be viewed at <http://ow.ly/XUjY3002YBb>

Growing Forward 2 can be viewed at <http://ow.ly/sGxZ3002YOg>

Mark Wales, safety nets chair for the Ontario Fruit and Vegetable Growers' Association (OFVGA) says, "We are currently

engaged in a process with our member organizations to get their feedback using a survey that AAFC has circulated to farmers and farm organizations across Canada. To date AAFC has interviewed about 2,000 farmers using this survey questionnaire."

The OFVGA will be requesting the reversal of cuts made during GF2 to AgriStability and AgriInvest, that is to restore tier 2 coverage in AgriStability and increase the matchable deposit to 1.5 per cent of annual net sales in AgriInvest.

Part of the lobbying effort will focus on eliminating the new practice of capping reference margin calculations in AgriStability and providing more clarity and fairness into the process for determining an Agri-Recovery claim. The association will also be asking that the provinces restore dedicated funding for Environmental Farm Plans.

Feeding families, feeding hope

The Ontario Association of Food Banks (OAFB) would like to say THANK YOU to Ontario's agricultural community.

Because of your support, we are able to provide healthy and nutritious produce for:

- 125 food banks across the province who in turn serve;
 - 360,000 Ontarians each month, 120,000 of which are children
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ensure all Ontarians have access to fresh, homegrown produce. Please know that you are directly supporting those who need it most, and we could not be more thankful for all that you do.

If you would like to learn more about the Ontario Association of Food Banks, or to make a donation, please call us at 416-656-4100 today! We ship by the pallet, and can move truckloads of time-sensitive produce at a moment's notice.

As we look towards the start of summer, and gear up for the harvest season, we hope that you will continue to support Ontario's food banks. We truly could not do what we do, without the Ontario agricultural community!

CORRECTION: List of minor use priorities posted

Apologies to our readers for mistakenly printing a previous year's minor use priorities on page 25 of the May issue rather than the current list provided by OMAFRA provincial minor use coordinator, Jim Chaput. The table itemizes the projects to be submitted to the Pest Management Regulatory Agency and the data requirements to be completed in 2018-19. Registration decisions for these will likely occur in late 2019 and 2020.

The correct list has been posted to our website at www.thegrower.org and is now part of the official record of the May 2016 issue.

NEWSMAKERS



Anne Fowlie

Long-time executive vice-president of the Canadian Horticultural Council (CHC), **Anne Fowlie**, is leaving the Ottawa-based organization after almost 18 years of service. In her farewell announcement, she said, "It has been a privilege and a wonderful opportunity and much has been accomplished, including establishment of the Dispute Resolution Corporation, AAFC Pest Management Centre and CanadaGAP." While she leaves on June 30, Fowlie pledges to continue working in the agricultural sector.

On another CHC staff change, **André Bourbonniere**, has left the council. He was manager, policy development and research.

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) welcomes **Erica Pate** as the direct farm marketing lead while **Jessica Kelly** is on maternity leave. She will work closely with the Ontario Farm Fresh Marketing Association, Farmers' Markets Ontario and other groups.

The Canadian Federation of Agriculture (CFA) has announced the appointment of **Errol Halkai** as its new executive director. He joined CFA in 2009 as an international trade consultant and since 2015, has held the position of acting executive director. **Brigid Rivoire**, the previous executive director, has retired after serving in the role since 2001.

The Ontario Fruit and Vegetable Growers' Association welcomes **Sasha Novakovic**, formerly of Novaterra Environmental Ltd., to the position of water specialist. His degree in geological engineering from the University of Waterloo and consulting experience will make him a valuable asset as he assists Ontario growers with permit-to-take-water applications. He can be reached at 519-763-6160 ext 219 or water2@ofvga.org. He picks up the torch from **George Shearer** who is on temporary medical leave.

Also joining staff is **Alex Nichols** in the role of advertising sales representative for **The Grower**. He has held a number of positions in sales and marketing as well as the publishing industry. Based out of the Guelph office, he will be busy reaching out to advertising clients for upcoming issues and planning print and digital campaigns for 2017. He can be reached at 519-763-8728 ext 218 or advertising@thegrower.org.

Manitoba's new agriculture minister is **Ralph Eichler**, MLA for Lakeside, replacing outgoing NDP **Ron Kostyshyn**. He will be in his post just a few weeks before the annual federal-provincial-territorial agriculture minister's meeting scheduled for July 20-22 in Calgary, Alberta.



Ralph Eichler

In web-related news, **The Grower** welcomes sixth-generation farmer **Keisha Rose** as a new blogger to the www.thegrower.org. A graduate of the University of Prince Edward Island with a Bachelor of Business Administration degree, she is working on her family-owned and operated potato farm, R.A. Rose and Sons Ltd located in North Lake, PEI. Look for her blog as she chronicles the summer potato-growing cycle specifically and agricultural issues generally on the Island.

Condolences to the family and friends of **Joe Polito** who passed on May 6. As the Ontario Produce Marketing Association noted, "His passion for produce will be sadly missed by the entire community, including customers, growers, brokers, suppliers, tradespeople and members of the Canadian and provincial produce marketing associations."



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COVER STORY

Asparagus: a shooting star that's lighting up the vegetable industry



Millennium asparagus plugs



Five-man asparagus harvester



Meticulous packaging by Dwight Maddix



An asparagus display in Mississauga, Ontario Metro store
Photo courtesy of Foodland Ontario

Increases in Ontario asparagus acreage follow the local food trend

YEAR	ACREAGE
2011	2,500 acres
2012	2,680 acres
2013	2,540 acres
2014	2,800 acres
2015	3,400 acres

This 2015 planting of asparagus in Ontario's Norfolk County exemplifies the strong expansion in the commodity.

SOURCE: ASPARAGUS FARMERS OF ONTARIO



“Asparagus is a good news story. Demand is up and consumption is on the rise.”
~KEN WALL

CONTINUED FROM PAGE 1

Buying as a group has kept prices competitive. This plastic corrugated product is stronger than traditional cardboard corrugate and has the capacity to stand up under high moisture conditions. It's also fully recyclable by the retail stores.

Together, the growers fund the breeding program at the University of Guelph, a daunting process with a perennial that can have a lifespan of 15 to 20 years. Perennial patience is what's required to see if new cultivars have the longevity of their ancestors. Thanks to this long-term vision, Guelph Millennium has become the new standard, a better-yielding cultivar with more resistance to soil-borne disease.

Not resting on his breeding laurels, the University of Guelph's Dave Wolyn has developed a new variety aptly named Guelph Eclipse. This variety has demonstrated higher yields than Millennium, especially in the early years of harvest and also has significantly better quality in terms of percentage of number one spears. This new variety also demonstrates some foliar disease resistance. In 2016, there is limited seed of Eclipse in Ontario, but more is expected next year.

Another variety, Guelph Evolution, has been released specifically for the market in the United Kingdom where it emerges earlier than Guelph Millennium and is competitive with other cultivars there. It's an interesting example of how

Ontario breeding has produced a cultivar that doesn't rate highly in the local environment but does well in other warmer jurisdictions.

Two or three more varieties have yet to be named, since they are still in grower trials. However, the AFO's member-owned seed company, Fox Seeds, is expected to bring in significant revenues that will drive more leading-edge research. These new Guelph varieties are stimulating growth of the Ontario industry with their yields of 7,000-plus pounds per acre.

“It takes a lot of work and a huge investment to grow asparagus,” says Wall. “It requires careful harvest management, nutrient management, great weed, disease and pest control. Fern health has to be carefully managed into the fall, so that carbohydrates develop in the roots to ensure a good crop the following spring.”

To keep asparagus profitable, Ontario's industry is looking to improve the efficiency of manual harvesting. The current three or five-person harvesters are labour intensive. While single-person harvesters have been proven to be 1.8 to two times more efficient, the European prototypes are relatively complex. While they worked extremely well in 2015 trials, there's always the worry of timely replacement of parts.

That's why Ontario's asparagus growers are developing a harvesting machine with local engineers. Adapted to Ontario's row widths and conditions, the new concept is being tested on

several farms in Canada and the U.S. this season. Wall says the trial must show not only efficiencies and robust performance, but also regard for worker safety.

One of the challenges is that battery-operated harvesters need to be recharged. There are two large rechargeable batteries on each unit. Either these heavy batteries need to be removed and taken to a source of power or the harvesters need to be in close proximity to a power source. But that's not realistic for Ontario's farflung fields with no hydro.

“As growers, we live on the land,” says Wall. “We're cognizant of the environment but we need to be cost-effective at the same time. Gas-powered harvesters represent practical efficiencies.”

Those gas-powered harvesters are just one of the lures for urban media who may have never seen asparagus beds. As Bernie Solymár, AFO executive director, explains, the second annual 'asparabus' tour is organized this year to get Greater Toronto Area journalists and foodies to visit Barrie Hill Farms north of the city. All of the communications assets are in place with a new brochure as well as a video series prepared by chef Jeff Collins.

Now it's crunch time for the entire industry, packing asparagus into a few weeks of harvest that tapers by the end of June.

Go go www.thegrower.org to see a video of Michael Chromczak.

CROSS COUNTRY DIGEST

QUEBEC

\$20,000 raised for “I love 5 to 10 servings a day”

The Quebec Produce Marketing Association (QPMA) recently launched its new “I love 5 to 10 servings a day” campaign at a networking event. QPMA president Stephan Schmekel unveiled four brand-new visuals that include the well-known heart figures, plus a new slogan: “Mettez-y du coeur!” (Put your heart into it!). The campaign will appear on numerous billboards in Montreal, Quebec City, Trois-Rivières, and Sherbrooke, and on many websites as well, including lapresse.ca, tou.tv, ricardocuisine.com, telequebec.tv – plus a generous helping of social media visibility with Facebook ads.

A networking event in late April helped raise more than \$20,000 for the

“I Love” campaign. Since its original launch in 2004, the campaign has developed and distributed a wide assortment of simple, practical tips to help Quebecers get interested in eating more fruits and vegetables. These can be found on the “I Love” website along with bushels of information about fruits and vegetables, their particular benefits, what a “serving” means, plus food guides, adaptable information tools, and favourite recipes by produce industry professionals. The campaign also has a lively Facebook page that’s packed with tantalizing food facts and practical advice for a supportive community of some 18,000 fans.



Source: Quebec Produce Marketing Association news release

BRITISH COLUMBIA

BC Tree Fruits predict record cherry crop for 2016

As summer grows closer, so does the abundance of summer fruit from the orchards of BC Tree Fruits Cooperative (BC Tree Fruits) growers. For the second consecutive year, an early and warm spring will result in cherries in stores by early June.

With a record 12 million pounds estimated for this season, that figure is up substantially from the 10.5 million

pounds from 2015. For the rest of the summer fruit coming from Okanagan orchards, BC Tree Fruits is estimating an increase in tonnage of approximately 20-25 per cent across other commodities.

“Mother Nature has provided our growers with very warm spring days leading up to bloom resulting in another early start to the summer fruit season this year,” says BC Tree Fruits market-

ing manager Chris Pollock. “We expect to start harvesting early-season varieties of cherries in early June, with the fruit hitting retail shelves very soon after.”

The primary market for cherries remains western Canada and the United States. The remainder is marketed and sold to key off-shore markets through the partnership with Sutherland S.A. Produce Inc.

BC Tree Fruits Cooperative is comprised of more than 500 local grower families who grow a variety of tree fruit commodities including apples, cherries, pears, peaches, nectarines, apricots, prunes, plums and grapes. BC Tree Fruits head office is located in Kelowna, BC.

Source: BC Tree Fruits news release

PRINCE EDWARD ISLAND

Wireworm research intensifies on both chemical and biological control

With some chemical controls under federal government re-evaluation, potato growers are keen to learn more about their options for controlling

wireworm. This soil-borne pest has been causing increasing damage to root crops such as potatoes, rutabaga and carrots across Canada. The cosmetic

damage translates into less marketable crop.

At a Wireworm Research and Extension Seminar this past spring, Prince Edward Island

growers heard about the latest research from Agriculture and Agri-Food Canada’s (AAFC) Christine Noronha, Bob Vernon and Todd Kabaluk.

Thimet 20G (phorate) has a new formulation and new method of application at planting. Another product called Capture (bifenthrin) is effective when applied as a liquid in-furrow spray at planting. The researchers observe that Thimet 20G kills wireworms while Capture repels wireworms from the tuber area. Company research by FMC conducted at Cavendish Farms and Technology Crops International showed that Capture plus Titan (clothianidin) improved control with the added benefit of controlling Colorado potato beetle.

A SmartBox system is required to apply Thimet 20G along with pinch valves to prevent release of granules at the end of rows. The Pest Management Regulatory Agency has a smartphone app that allows for quick access to all approved pesticide labels.

The wireworm research team has hired a new researcher: Suqi Liu. Her two-year assignment started last January with the PEI Department of Agriculture and Fisheries. She is stationed at the Agriculture and Agri-Food Entomology Research Lab. The goal is to understand more about the biology, ecology and population



Biological control of wireworms using *Metarhizium*

dynamics of the wireworm species known as *Agriotes sputator*.

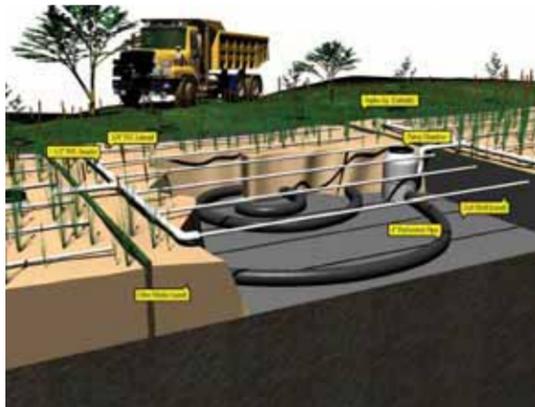
Todd Kabaluk, an AAFC researcher at Agassiz, British Columbia, is working on biological control of wireworm. A beneficial fungus called *Metarhizium* is effective in attaching to wireworms and killing them. When combined with a pheromone attractant on granules spread in a field, the kill rate is as high as 95 per cent. Cost-effective methods and weather-proofing of this ‘attract and kill’ system are being developed. He has also developed an oil-emulsion spray of *Metarhizium* which will be tested this season.

Source: Prince Edward Island Potato News

The ‘AQUA Wetland System’ “A new breed of constructed wetland”

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

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



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

- 1) treatment & re-use of greenhouse irrigation leachate 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: cell. 905-327-4571 email. lrozema@aqua-tt.com



CROSS COUNTRY DIGEST

BRITISH COLUMBIA

Ambrosia growers approve levy renewal for marketing and research

Once again, B.C. Ambrosia growers have voted to maintain a levy on all fresh market Ambrosia apples for marketing and research. Of those growers who voted, 62 per cent approved the new levy of \$0.02 per pound, a slight reduction from the \$0.025 per pound in the last mandate.

In most cases, this levy will be deducted at the packinghouse, but in the case of direct sales or instances where the levy is not deducted by the first receiver, Ambrosia growers must pay the levy directly to the New Tree Fruit Varieties Development Council (NTFVDC). Ambrosia growers have supported the levy since its inception in 2001.

Since 1994, B.C. plantings of Ambrosia have increased from a few acres to more than a

thousand in 2015, with investment in new plantings expected to continue over the next several years. In fact, recent surveys of nurseries and suppliers of rootstocks indicate that Ambrosia plantings will total nearly 2,000 acres by 2020.

The levy funds studies to improve quality, storability of the apple and to carry out research into certain apple pests. In-store demonstrations at supermarket chains have been used yearly to encourage consumer acceptance. Social media platforms have been established to engage with consumers. Videos have been produced to tell the Ambrosia story and introduce the public to the Ambrosia growers according to Bruce Currie, NTFVDC chair. For more information, visit www.ambrosiaapples.com.



ONTARIO

Fresh From the Farm fundraiser expands to 4,000 schools

Due to the success of a three-year pilot project, Fresh from the Farm has expanded to include more than 4000 eligible schools in Ontario. Since 2013, almost 300 elementary and secondary schools have raised more than \$273,000 for school initiatives selling 744,000 lb of Ontario-grown produce.

“Fresh from the Farm was designed to help create a more supportive nutrition environment in schools by providing an opportunity for students to fundraise - in a healthy way!” Cathy O’Connor, project coordinator with Dietitians of Canada, says.

Students raise funds by selling bundles of fresh Ontario root vegetables, which include potatoes, carrots, onions and sweet potatoes, and boxes of fresh Ontario apples. The innovative school fundraising campaign serves to promote healthy eating to families while supporting Ontario farmers through the sale of Ontario produce.

“This program benefits schools, students, their families and Ontario farmers as it helps to increase the consumption of fresh fruit and vegetables by financially supporting both students and farmers. Fresh from the Farm also

provides a learning opportunity to connect students to the diversity of produce grown in Ontario through online updates and hands on school activities” says Dan Tukendorf, program manager with the Ontario Fruit and Vegetable Growers’ Association (OFVGA).

Students fundraise September 6 through to October 14, 2016 culminating with the delivery of fresh Ontario-grown fruit and vegetables to the schools in November. The program model involves parent volunteers to package produce, ready for same-day customer pick-up. Interested parents, educators and

students can contact their school principal. Schools enrol at www.freshfromfarm.ca.

The overall program goal is to expand Fresh from the Farm throughout the province over the next few years.

Fresh from the Farm is a collaborative initiative between Dietitians of Canada, the Ontario Fruit and Vegetable Growers’ Association (OFVGA), the Ontario Ministry of Education, and the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA). To find out more, visit www.freshfromfarm.ca or call OFVGA at 519-763-6160.

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INTERNATIONAL

CHINA

Garlic crop down, prices up



Harvesting of China's new-season garlic crop starts in June in the coastal province of Shandong, but is expected to net lower volumes. Cold temperatures over recent months have resulted in a 10 to 20 per cent loss of crop.

Higher prices are expected, an important trend given that China dominates global garlic production. However, stores of 'old' garlic are still high, so even when the new harvest comes on stream, prices may not spike as much as predicted.

Source: *FreshPlaza.com*

UNITED STATES

Gene-edited mushroom is a first

A new gene-editing technology known as CRISPR has been used to create a non-browning mushroom. The U.S. Department of Agriculture (USDA) has cleared the mushroom for sale.

A plant pathologist at Pennsylvania State University has silenced the enzyme-producing gene that causes white button mushrooms to turn brown after being cut. The result is longer shelf life.



Researchers are excited about CRISPR technology because it does not require insertion of one organism's DNA into another. From a regulatory standpoint, it means that the USDA does not consider the mushroom to come under its regulations for GMOs.

Source: *FreshPlaza.com*

CHINA

Addressing oversupply and inferior quality

The Pagoda Group, one of China's largest fruit chains, is encouraging like-minded value chain members to face up to poor quality and oversupply of fruits. The launch of the China Premium Fruit Industry Association is to study issues such as pesticide control, quality of soil, increases in imported fruits, poor branding and volatile pricing.

For example, apple growers are estimating 40 per cent of the current crop will be wasted due to oversupplies and depressed prices. Following other global producers, the Chinese realize that new and different brands will enhance fruit value.

The non-profit China Premium Fruit Industry Association will work to increase consumption by launching a potential 100 new quality brands. Its mandate is to improve 1.3 million hectares of fruit cultivation.

Source: *FreshPlaza.com*

NETHERLANDS

Vegetables: a healthy snack at meetings



Researchers at Wageningen UR have shown a positive uptick in consumption when snacking vegetables are offered in company restaurants and conference rooms. Working with other seed and vegetable companies, researchers found that consumption of vegetables during meetings was on average 74 grams per person each meeting. That's more than a third of the daily recommended intake.

This Netherlands university focuses on healthy food and the living environment.

Source: *FreshPlaza.com*

UNITED STATES

Peeled and sealed veg

Consumer research firm Nielsen's Perishables Group reports that pre-chopped fruit and vegetables continue to rise in sales. In the U.S., sales of washed, chopped or bagged fresh produce are climbing at double the rate of whole fruits and vegetables. Families with kids and solo consumers lead the trend.



Sales of value-added fruits grew at a compound annual rate of 7.1 per cent from 2011 to 2015. Pre-chopped vegetables were even more popular at a growth rate of 8.7 per cent in that period. Sales growth for all produce grew 2.9 per cent in the same time frame.

Retailers report that consumers skewed towards convenience also add higher-priced items to their grocery list.

Source: *FreshPlaza.com*




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ONvegetables



Ontario Ministry of Agriculture, Food and Rural Affairs

Problem weeds in pumpkins

BAILEY POOL

The main goal of weed management is to maximize crop yield and quality by reducing weed competition in fields. Weed escapes can also increase the levels of foliar diseases, such as powdery mildew and act as habitat for insect pests, such as squash bugs. Recognizing weeds and learning how to better control them are the first steps to optimizing crop yield.

In pumpkin crops four problem weeds are pigweed, velvetleaf, ragweed and lamb's quarters. Being able to identify these weed escapes early, before they become a problem is very important to ensure no yield loss occurs. Before planting it is important to consider the critical weed-free period of the crop, next identify the weeds that may pose a problem and learn which herbicides are best to control those weed escapes present in your field.

Critical weed-free period

A critical weed-free period is the time when it is very important to manage weeds to allow crops to develop without competition. This will help to maximize yields by reducing competition during a critical time of development for the crop.

For vine crops such as pumpkins, the critical weed-free period is the first four weeks after planting. If weeds are adequately controlled during this time there will likely be no yield loss due to weed competition. After this time, the canopy will grow over making it difficult for weeds to emerge or grow and disturb established crops.

In order to effectively control weeds, apply pre-emergence herbicides to stop weeds from emerging while the crop is developing. A post-emergence herbicide may also be needed to control escapes, if some of the weeds are not controlled with the pre-emergence herbicides.

When applying herbicides, consider the residual period; the maximum amount of time a herbicide can be in contact with soil before it will no longer control weeds, pre-emergence. It is also important to know how long the rain-free interval is for post emergence herbicides. The rain-free interval will inform you of how long the herbicide

has to be in contact with the target weed before it can be disturbed by rain.

Applying herbicides at the wrong time is a major reason why herbicides fail.

When applying pre-emergence herbicides, if rainfall does not occur soon enough after application, the herbicide will not activate and therefore will not perform. Pre-emergence herbicides need rain to incorporate them into the soil and reach weed seedlings before they break through the soil surface. Rain allows the herbicide to infiltrate into the soil and be taken up the seedlings, killing them before they emerge. When applying post emergence herbicides, if rainfall occurs too soon after application there is a risk of the herbicide being washed off the leaves and therefore not performing properly. Post-emergence herbicides often work by foliar contact, therefore if the herbicide is washed off too soon the weed will not be killed.

In order to apply herbicides you must first identify problem weeds in your fields. Pigweed, ragweed, velvetleaf and lamb's quarters are very common in pumpkin crops.

Redroot Pigweed (*Amaranthus retroflexus*) and Green Pigweed (*Amaranthus Powellii*)

These two weeds are very similar to each other and are often found growing in fields together or in other disturbed areas. Both are found in southern Ontario and are annual broadleaf weeds that reproduce by seed. See figure 1. Redroot Pigweed Seedling.

Seedling Identification:

- Alternate leaves
- Elongated cotyledons
- Underside of leaves is reddish-purple
- Redroot pigweed has a hairy stem and leaves whereas green pigweed is less hairy

Common Ragweed (*Ambrosia artemisiifolia*) and Giant Ragweed (*Ambrosia trifida*)

These two weeds are also similar in their biology and behaviours, however they are very different in appearance. Both are found in southern Ontario usually in disturbed pastures and cultivated fields. Both are annual broadleaf weeds that reproduce by seed.

See figure 2 Common Ragweed Seedling.

Seedling Identification:

- Common Ragweed
- Thick, dark green cotyledons that are round, narrowing near the stem
 - Sometimes have purple spots near the leaf margins
 - True leaves of common ragweed are finely divided into narrow lobes

Seedling Identification: Giant ragweed

- Thick, round, oval-shaped cotyledons
- 3-4x larger than common ragweed
- True leaves of common ragweed are large with 3-5 lobes

Velvetleaf (*Abutilon theophrasti*)

Velvetleaf is also a broadleaf annual weed that reproduces by seed only, found in southern Ontario. It is often found in annually tilled crops. See figure 3. Velvetleaf Seedling.

Seedling Identification:

- Round or spade-shaped seedlings
- Covered in fine, silky hairs
- Mature leaves are heart-shaped and come to a point and are also covered in fine, silky hairs

Lamb's quarters (*Chenopodium album*)

Lamb's quarters is an annual broadleaf weed that reproduces by seed. It can be found throughout Canada in cultivated fields, pastures and almost anywhere that soil is disturbed. Lamb's quarters can vary in appearance. See figure 4. Lamb's quarters seedling

Seedling Identification:

- Cotyledons are narrowly elliptic
- Upper surface is dull green, maroon on the underside
- Mealy grey coating on young leaves
- Mature leaves can range from lance-shaped to broadly triangular.

These features can help to identify escapes in fields before they become a bigger problem. Knowing the weeds that are present in fields will aid in choosing which herbicides to use and when to apply them. Knowing this can maximize yields and cut losses in crops.



Figure 1. Redroot pigweed seedling



Figure 2. Common ragweed seedling

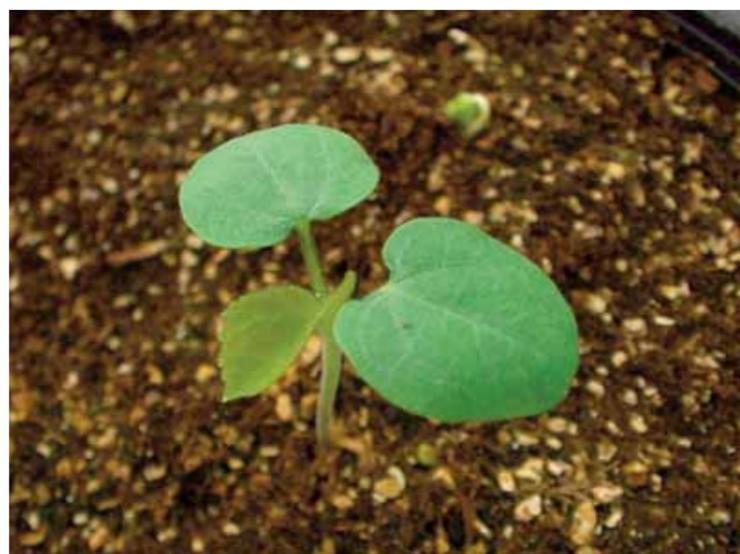


Figure 3. Velvet leaf seedling



Figure 4. Lamb's quarter seedling

Bailey Pool is a summer research assistant with OMAFRA based in Ridgetown, Ontario.

Photo Credits: Peter Smith, University of Guelph.

NEW EQUIPMENT & TECHNOLOGY

Semios offers acre by acre, metered delivery of inputs

Semios, a provider of real-time agricultural information and precision pest management tools, has closed an \$8 million financing with private equity individuals from the Agtech community, with assistance from Haywood Securities. Since its founding in 2010, the company has grown to be the largest worldwide network of sensors and control devices in specialty crops, providing real-time insights into risks associated with weather, pests, disease, frost and irrigation. The business model is set up on a software-as-a-service basis.

Combining remote access to real-time field conditions and acre-by-acre metered delivery of inputs is the cornerstone of precision agriculture. Semios enables improved deployment of pheromones, frost prevention and optimization of irrigation schedules.

These types of services help reduce risks, protect valuable crops and improve grower profitability.

Michael Gilbert, founder and CEO of Semios says, "We are at a pivotal point in the company's growth with more than 50,000 sensors deployed and more than 10,000 acres under management. Adoption of our platform is accelerating and our growers are asking for more features and services. With this new level of investor expertise and confidence, we'll be able to expand the platform and accelerate the growth of our business."

The Semios team is adding new services including novel aerosol pheromone formulas to target more orchard and vineyard pests. Because the health of bees and other beneficial insect species are under environmental



pressure, non-toxic and species-specific pheromone products are becoming more important alternatives to insecticides.

Other enhancements to the platform include improved big data analytics to predict the risk of frost inversions, diseases and non-optimized irrigation.

The Canadian government is also investing nearly a million dollars (\$949,322) with SemiosBio. Announcing

the funding in mid-April, the federal agriculture minister Lawrence MacAulay says the project will focus specifically on fire blight in apples, and downy and powdery mildews in grapes, with field testing across Canada. The investment is being made through the Growing Forward 2, AgriInnovation Program.

Source: News release from Semios and Agriculture and Agri-Food Canada

Grow your business through social media

ERICA PATE and ADAM MILLER

As the weather warms and the time for action is upon us, it can be difficult to find the time to continue to manage your

various social media channels. I am sharing a few tips found in our Direct Farm Marketing Business Resources Guide and various OMAFRA fact sheets that will help you manage social media and your time spent monitoring it this summer.

Customer needs

Different social media channels, such as Facebook, Twitter and blogs, provide an important opportunity for two-way communication with customers.

Be helpful to your customers. Focusing on sales should not be the sole purpose of your communication. Interact and engage with customers, entertain and educate them about agriculture and your business. This strategy will help build a relationship and lead to loyalty from your customers. Loyal customers make up the majority of your company's business- it is important to form and maintain these relationships.

Social media is an opportunity to address customer concerns or complaints promptly. Have a policy for how to handle social media, including negative feedback. Comments on social media have the potential to be seen by existing or prospective customers. Keep in mind that complaints are an opportunity to improve your service or product. Address complaints quickly to keep your customers.

Stay active

Remember to stay active in your communications. Social media provides the opportunity for you to provide fresh, up-to-date information for your customers. Frequent activity on social media will keep your business on your customers' minds. If you are having trouble coming up with regular content remember that day-to-day activities of your business or farm are very intriguing to most followers!

Plan ahead

There are services available such as HootSuite that can automatically schedule and post your content, allowing you to plan multiple posts at one time. Connect all your social media channels to your website, which will save time and require you

to only post in one place.

Time commitment

Although social media sites are free, time is money and using social media requires a time commitment from you or your staff. Allocate time to developing a social media strategy, building content, and monitoring comments and activity. Commit one staff member to update and monitor social media regularly. Build in time for this activity but do not dictate how they go about it. The individual in charge of your business' social media needs to have passion and interest in the business and industry, and needs freedom to communicate. It doesn't take much time to communicate with a lot of existing and potential customers on social media, but it can be difficult to set time aside. To help maintain frequent communication, connect your smartphone with your social media channels. This allows you to communicate through social media from the field, in the kitchen when your fresh pies come piping hot out of the oven, or at an event as it is happening.

Social media provides a number of business development opportunities for your business. Take advantage of what social media has to offer and stay connected to your customer, market your brand and build your business.

For more information on how to market your farm or food business go to Ontario.ca/agbusiness.

Erica Pate, direct farm marketing lead and Adam Miller, business management summer student, work for the Ontario Ministry of Agriculture, Food and Rural Affairs.

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ONTARIO FRUIT AND VEGETABLE GROWERS' ASSOCIATION

Board briefs and supplementary minutes

The Ontario Fruit and Vegetable Growers' Association (OFVGA) board of directors met on April 21, 2016. Section chair discussions ranged from the Pest Management Regulatory Agency (PMRA) re-evaluations that are currently taking place to the Seasonal Agricultural Worker Program extension and the American kestrel nesting box project that was nominated for a Premier's Award for Agri-Food Excellence. A May meeting is not taking place; the board will reconvene again in June.

Crop Protection Section – Charles Stevens and Craig Hunter

PMRA Re-Evaluations: Craig Hunter

The Pest Management Regulatory Agency (PMRA) is re-evaluating a number of fungicides including Ferbam, Ziram, Thiram, Rovral, Bravo and Captan.

From the OFVGA's perspective, current farm practices are not reflected in the re-evaluation data being studied. PMRA's estimates are in magnitudes higher than the actual practice. Without data of up-to-date field use patterns, PMRA has deemed the risks too high for workers and recommended to eliminate some uses.

Scouting is the practice noted with the most exposure in a year. PMRA also looks at what kind of personal protective equipment is used.

PMRA's policy says that manufacturers cannot include attire requirements on the product label because there is no way to ensure if growers will comply. However, on-farm safety practices and audits ensure that there is oversight, so this acts as a strong argument for including attire recommendations on labeling.

In developing a response to the PMRA, OFVGA directed that a survey be included in the May issue of **The Grower** to better understand grower uses and how labeled practices are followed. A link to the digital survey is on the OFVGA website at www.ofvga.org. CHC and OFVGA are working on responses to each of these re-evaluations.

Chlorothalonil webinar

This webinar was hosted by PMRA which is actively working with OFVGA. PMRA replaced the 21-day dermal toxicity data and moved to another approach, making it 400 times greater exposure. They are using old data but have changed how they go about interpreting it. PMRA did say that many crops could go back to using the 21-day dermal toxicology study, bringing most of the crops dropped from the label back into use.

CHC conference call with CPAC Committee

Peach leaf curl will be difficult to control if both Bravo and Ferbam uses are cancelled. They are currently the only effective fungicides available, leaving the peach industry quite vulnerable.

IPM Specialist Position

Charles Stevens had a meeting with the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) regarding an Integrated Pest Management specialist position; work is being continued on this OFVGA resolution. More information is yet to come.

Labour Section – Ken Forth

The Seasonal Agricultural Workers Program (SAWP) has been extended to December 31.

As workers begin arriving, please make sure their contract has been initialled in two places for workers coming from the Caribbean. Contracts have been coming into Canada either inaccurate or incomplete.

Safety Nets Section – Mark Wales

Note from the April 4 Commodity Council Meeting

There is a Red Tape Challenge process, and in doing so, the Ontario government is going sector by sector and having the public comment on regulations sector by sector. A review of the construction industry will take place first. The agri-food processing sector is scheduled for review this fall but there are no plans for agriculture at this time.



Brock University's Kestrel Nesting Box Project is off to a great start this season with seven nesting pairs. Kestrels have been shown to be a natural deterrent to bird species which damage fruit crops. Here, a male kestrel is shown in flight. Photo courtesy of Brock University.

Growing Forward 3

At the federal-provincial-territorial ministers' meeting in July in Calgary, the government will be seeking direction for the Growing Forward 3 programming. They will likely be trying to have a signed funding agreement by the next meeting in July 2017. This is for program implementation starting April 1, 2018. The overall goal is to start GF3 on time and not run into the lateness seen in previous program years.

Canadian Horticultural Council (CHC) BRM Committee Survey

A survey was given to members of the CHC Business Risk Management (BRM) Committee with results showing there is variability on the types of programs growers like; it is very unlikely that a consensus can be formed. This survey was delivered by the federal agriculture and agri-food ministry to learn about the effectiveness of programming under Growing Forward 2.

Statistics by Program

AgriStability Ontario payouts for the 2014 program year were \$33.6 million. The data shows that if Ontario farmers had been under Growing Forward 1 AgriStability rules, they would have received almost \$95 million in 2014.

AgriInvest's forms for 2015 are just going out. We encourage growers to utilize

funds in their AgriInvest accounts to improve their farm operation.

Self-Directed Risk Management (SDRM) – Producers who have had no activity in or out of the program over three years will be issued a cheque. No numbers are available on how many there are with money in accounts. Growers receive 65 per cent of their possible matching funds; growers will be getting a final payment soon to bring them up to 75 per cent of their eligible matching funds. As of May 6, 2016, OFVGA has released an SDRM-specific survey. Growers are encouraged to fill out the electronic survey, found on the OFVGA website, to better inform our lobbying efforts with regards to the program.

Research Section – Harold Schooley

VRIC Open House

The Vineland Research Innovation Centre Greenhouse open house will take place on June 3, 2016.

Property Section – Brian Gilroy

Grey- Bruce Counties Politicians' Meeting

On March 19, 80 politicians (federal, provincial, and municipal) attended the annual politicians' meeting in Grey-Bruce County. Social license, sustainability, electricity prices,

cap and trade, and more were all discussed.

Farm and Food Care Canada on Social License

The Canadian Centre for Food Integrity will be launched in Ottawa on May 31 and June 1. Coming together is a start, but working together will define it as a success.

Farm and Food Care AGM Speakers Bureau

Farm and Food Care has approved lower-level members to have representatives on both advisory councils in a new by-law.

Bird Damage Mitigation Group

A nomination package was submitted for the Kestrel Nesting Box Project to the Premier's Award for Agri-Food Innovation led by Brian Gilroy, Susan Fitzgerald and Katie Burt.

Canadian Horticultural Council (CHC) – Adrian Huisman

PACA-Like Trust

Work on PACA-like trust is continuing and is quite active.

CHC Fall Harvest

The Fall Harvest lobbying event will take place in November on Parliament Hill and the Ontario Greenhouse Vegetable Growers have already pledged their participation.

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Rewards and incentives



JOHN KELLY
EXECUTIVE VP, OFVGA

One of the best ways to get someone to do something that you want them to do is offer rewards and incentives. It is done all the time in terms of praise, incentives (including monetary and other rewards), recognition, a pat on the back and many other ways. In the workplace and in the family environment, when something is done well, objectives are met or exceeded, effort is in place, a great team environment is facilitated, or going above and beyond the norm should be acknowledged.

The government of Ontario has also put forward many incentives to try to change certain behaviour. For example, legislation aimed at curtailing

smoking and reducing the impact of second-hand smoke through elimination of smoking in public places has had a positive impact on health and the environment. Seat-belt legislation, requiring all people in a motor vehicle to belt up, has saved lives. Conservation programs targeting waste reduction and recycling have raised awareness in the public of the need to think twice about tossing out reusable or compostable materials. All of these pieces of government-driven legislation have resulted in benefits to society.

There are issues, however, where it appears that the consumer is being penalized for doing the right thing. The very recent elevation in the price of electricity, for example, is an example of where the Ontario Energy Board has gone off the rails. Time-of-use rates for electricity in Ontario are going up, not because there is a higher demand for electricity, but because not enough electricity was used over the past winter. For those that fall under the Regulated Price Plan, the prices over the winter did not recover the full cost of serving these specific customers. As a result of using less electricity (presumably also because Ontario

consumers were better at conserving electricity), for those consumers using more than 750 kilowatt hours in a month, they are being hit to the tune of 2.5 per cent. While this may not seem like a lot of money, it is another example of added costs even though the right things have been done. This is a penalty for doing the right thing. It makes one wonder about the true impact of conservation incentives in Ontario.

But wait, this is not unique to electricity pricing. Natural gas usage faced the same declines over the past mild winter and as a result the returns to the gas companies were not as high as they desired. This is where a "natural" conservation occurred, where there was no need to use the product. In terms of supply and demand, it appears that the supply has gone up and that the demand has gone down. In simple economic terms, pricing should have followed these rules. This is simply not the case.

The pricing for natural gas increased April 1. The stated reason for the price increase was that not enough natural gas was consumed over the winter months, so revenue must be generated to make up for the

short fall. It makes one wonder about the incentives being pushed by the government of Ontario, resulting in higher natural gas prices from less use.

In horticulture, growers have been using integrated pest management (IPM) and nutrient management plans for decades. They do so because this is the right thing to do, and it provides rewards to both the farm and to society. The use of IPM means that the grower is being very targeted in the use of crop protection products, which leads to benefits of cost reduction, lower incidence of disease resistance, efficiency, safety and reduced environmental impact. But growers are being penalized through reductions in the availability of products to combat pests.

Growers are also very cognizant of nutrient management practices and the favourable impact they have when managed correctly. Growers are being asked to significantly contribute to the reduction of phosphorus pollution in the Great Lakes, to the same 40 percentage reduction as those producing in the United States. However, going from a six per cent impact to a 3.6 per cent impact (from Ontario) versus a 94 to 56 per cent impact from

the U.S. is more difficult for Canadian producers.

Consider this analogy. Two people go to the barber for a hair cut. One already has a hair cut, and the second has hair that is at least a foot long. With a 40 per cent reduction in hair on both sides, the person with the brush cut is much closer to being bald. A 40 per cent reduction in the long-haired individual's hair length still leaves that person with comparatively speaking long hair: seven inches! The brush-cut person is not being rewarded for already having very short hair, and the long-haired individual is not being incented to get the same short hair. How is this a fair program?

Incentives should be used to create an environment where stakeholders would want to do the right thing and be rewarded for this behaviour. And when the objectives of these incentives are met, penalties should not be applied. This does not appear to be the case, however, for growers who meet the above circumstance. Congratulate those who do the right thing, reward them, and it will lead to further efforts to meet the incentives. Do the opposite, and the opposite result will occur.

WEATHER VANE



After a cold Ontario spring, these blueberries in bloom are a welcome sight at the farm of Dale and Angie Vranckx, Blueberry Hill Estates, St. Williams, Ontario. Photo by Glenn Lowson.

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THE
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PERSPECTIVE



A lesson from Earls: know your allies



OWEN ROBERTS
U OF GUELPH

has been around for decades and has long sourced its beef from farmers there. True, the more research we do, the more we learn about important matters such as animal welfare, the root of humane production. But for most producers, this dark cloud over conventional production has blown up quickly. It's an affront to many livestock producers who believe their animals are already humanely raised, and don't they need certification to prove it.

And as if this wasn't bad enough, Earls rubbed salt in the wound of Canadian producers by saying it would source this humanely produced beef only from the U.S. It said it tried to get a consistent supply from Canada, but couldn't.

A flurry of social media protests followed. Earls ultimately declared it had made a mistake, and would work harder with western Canadian producers to develop a supply.

But all this only happened because there was so much backlash. Initially, Earls was much more concerned about its public appearance and the opportunity to seize on consumers' growing confusion over food production practices, than it was supporting western Canadian farmers – its long-time allies, whose homegrown commodities helped it get off the ground in the first place and

enjoy many profitable years. It turns out producers didn't know Earls at all.

Farmers must pay attention to this development. Food companies are now competing on measures such as animal welfare, associating it directly with quality and consumer consciousness.

This will draw into question farmers' existing standards -- which, by implication, are inadequate.

Pork producer Vincent Breton sensed this coming decades ago. He's a Canadian pioneer in certified humane production, the third generation of a very successful pork-producing family. His duBreton brand operation (of which he is now president) has grown to include 550 employees. But it wasn't always that way.

Through the 1970s and 1980s, as pig farms as a whole were growing, duBreton needed a new way to compete or risk getting swallowed up or stomped on. Ultimately, that led the family to organic production, certified humane production and a network of 200 producer farms across Quebec and Ontario.

Change is usually not so radical. But regardless, Breton's message is a salient one not just for livestock producers, but for anyone trying to keep pace with consumers' changing preferences. Companies need to



differentiate themselves...that is, know your allies. When you embark on a new venture – be it organic, point of origin, or whatever – know who is sharing the risk. Your suppliers? Processors? Retailers? Everyone wants different, which is assumed to be better, as well. But you're the one being charged with making it so. Who do you consider to be a true teammate in the drive towards different and better fruit and vegetables?

Ultimately, says Breton, look to consumers for guidance.

"That's been the thing that worked for us," he says.

No doubt, consumers want safe, nutritious, wholesome food. On its website, Breton says the "instruction manual" for certified humane production is simple: "nature." Consumers who accept that explanation are not asking tough questions – but on the other hand, maybe that's all the simple messaging they want, or need, to let a product through the door. After that come the hard questions – and as Earls found out, the answers need a lot of thought.

The uproar lately over what constitutes humane livestock production serves as a reminder to all producers, regardless of the commodity: know your allies, and never take your partnership with them for granted.

Earlier this spring, in western Canada, a popular restaurant chain called Earls Restaurants announced with great pride and fanfare that it was going to feature only beef that was raised according to certified humane standards.

This was, of course, a marketing move. Earls, which has its roots in western Canada,

Bee-friendly gardens in bloom



Kubota Canada thought ahead when they built their year-round facility on the grounds of Canada's Outdoor Farm Show near Woodstock, Ontario. Last year, they planted a bee-friendly garden with bluebeard (*Caryopteris*) to set off their orange-coloured tractors.

In a similar vein, the Canadian Horticultural Council is a partner of Bees Matter. The Bees Matter Buzzing Gardens program offers Canadians the opportunity to combat one of the main issues affecting bee health: insufficient nutrition. If you're interested, sign up for a free, pollinator-friendly seed pack at www.beesmatter.ca.

A flower packet contains the seeds for: lance-leaved coreopsis, New England aster, dense blazing star, golden tickseed and sneezeweed.

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Certification plans: Business cost or right to play?



Taking good care of the soil is just one of many environmental stewardship practices. Photo by Glenn Lowson.

BRUCE KELLY

Nestle Foods recently announced that it was canceling contracts with its Malaysian Palm Oil supplier IOI over its palm oil action plan that “that doesn’t go far enough” to address environmental concerns over its land clearing practices. IOI saw its certification under the Responsible Palm Oil certification suspended last month for non-compliance with certain principles and criteria within the palm oil certification scheme. Malaysia is a long way from Canada but the hard lesson of IOI in losing a customer for non-compliance with an industry quality assurance/safety program should not be lost on Ontario producers.

Independent, third-party certification (such as Sustainable Seafood Certification for fish farms and ocean fish production) has grown phenomenally since 1993, when the Rainforest Alliance certified the first banana plantation to meet Sustainable Agriculture Network (SAN) standards. This standard prohibits conversion of forests or other natural ecosystems to cropland, protects workers and wildlife. Today they cover more than a million farmers on Rainforest Alliance Certified farms, most of them smallholders, cultivating 100 crops on a total of 7.4 million acres (about the size of Switzerland) across 42 countries.

It’s not hyperbole to say

certification has transformed the way many crops are grown in the tropics. Slash and burn techniques are now banned under sustainable farming systems and companies have had to make changes if they want to be certified. Here in Ontario, agriculture is much different. Government regulations and farming practices are not nearly as destructive as those used to clear rainforests, but we too must look at sustainability systems and assurance systems such as the Environmental Farm Plan, Nutrient Management, and CanadaGAP for food safety to make certain assurances known to our customers.

Recently, SAN and the Rainforest Alliance released their Impacts report. It documents how certified farms adopt sustainable practices quickly and keep improving over time. They increase yields using sustainable methods on existing cropland, improving product quality as well as productivity. Certified farms have higher incomes, better-educated children, less deforestation, more trees and biodiversity, more climate resilience, healthier soil, water and other ecosystems.

For example, certified cocoa farms in Cote d’Ivoire and certified coffee farms in Peru yielded 1.5 to two times as much per acre as non-certified farms, and had higher net incomes (291 percent higher in Cote d’Ivoire).

Certification can never deliver perfection. It’s a system

of checks and balances that rewards improved practices while identifying and correcting unsustainable ones. By design, certification is an iterative process, taking producers on a long-haul journey to continually improve practices.

The CanadaGAP Food Safety certification has proven to be such a program. It sets out certain base standards that grower/packers must meet to ensure food safety such as water test, worker sanitation and risk assessments on product source, but also encourages growers to embark on a philosophy of sustainability of their source, process and customer satisfaction. It increases transparency with the customer and is helping to secure the public’s trust in food and farming.

“Farmers in our sector of agriculture, Edible Horticulture, are always striving to produce the best quality vegetables by following best management practices that consumers have come to trust.”
~ Avia Eek Vegetable Grower
Holland Marsh

Clearly, certification alone won’t be enough to bring all that land into sustainable production. It’s a valuable tool; it proves we can raise yields on existing cropland using sustainable methods, which is what we need to do to meet rising food demand and feed nine billion people by mid-century without cannibalizing forests or other ecosystems.

Here in Ontario we have many government regulations that already ensure our food system is at high levels of labour standards, worker safety, environmental stewardship and food safety compliance. They’re far higher than much of the world but inspection and extension and training programs remain a big piece of the larger sustainable agriculture puzzle.

None of these approaches will magically eliminate unsustainable practices on billions of acres of farmland worldwide. But that shouldn’t deter us from using the tools we have to tackle even the toughest, most problematic areas of agriculture, and working to put the whole sector on a sustainable trajectory.

Agriculture is the most impactful human activity on the planet, bar none.

We don’t have the luxury of narrowing sustainability imperatives to conform to the conveniences or limitations of businesses, governments or even certification systems. We have to come together to transcend them and make global agriculture conform to the non-negotiable limits of sustainability set by the planet. After all, moving to another one is not an option.

Bruce Kelly is environmental program manager, Farm & Food Care Ontario.

COMING EVENTS 2016

- June 3 Vineland Research and Innovation Centre Greenhouse Open House, Vineland Station, ON 12-4 pm Register for 30-min tour at www.vinelandresearch.com
- June 6-12 Ontario Local Food Week
- June 8 Ontario Agri-Food Education Inc. Annual General Meeting and 25th Anniversary Celebration, 4-8pm, Country Heritage Park, Milton, ON Tickets are \$125, Register by June 1, www.oafe.org
- June 11 Food and Farm Care’s Breakfast on the Farm, Veldale Farms, Woodstock, ON
- June 12 Ontario Agricultural Hall of Fame, Gambrel Barn, Country Heritage Park, Milton, ON www.oahf.on.ca
- June 17 Garlic Growers of Ontario Field Day, Muck Crops Research Station, Bradford, ON
- June 20-22 United Fresh Convention and Show, Chicago, IL www.unitedfreshshow.org
- June 29 Food and Beverage Ontario Annual General Meeting, Steam Whistle Brewery, Toronto, ON
- July 6-7 Canadian Horticultural Council Board of Directors’ Summer Meeting and Tour, Lower Mainland, BC
- July 9-10 Norfolk Lavender Festival, Apple Hill Lavender and Bonnieheath Estate Lavender and Winery, Simcoe, ON www.norfolklavenderfestival.com
- July 18 – 21 International Fruit Tree Association Regional Study Tour, Rochester to Geneva, NY
- July 19 Ridgetown Vegetable Open House, University of Guelph-Ridgetown Campus, Ridgetown, ON
- July 20-22 Federal-Provincial-Territorial Agriculture Ministers’ Annual Meeting, Calgary, AB
- July 26-27 Canadian Horticultural Council Mid-Summer Apple Meeting, Moncton, New Brunswick
- August 3 Controlled Atmosphere Clinic, Grand Rapids, MI
- Aug 13-17 International Strawberry Symposium, Quebec City, QC info@nasga.org
- Aug 17-18 North American Strawberry Growers’ Summer Tour, Quebec
- August 17 Peak of the Market Family Fun Day, Winnipeg, MB
- August 18 Ontario Potato Field Day, HJV Equipment, Alliston, ON
- Aug 18-20 Quebec Produce Marketing Association Annual Convention, Montreal, QC
- August 24 Ontario Biennial Grape Tailgate Tour, Location TBA 9 am-2 pm
- Sept 13-15 Canada’s Outdoor Farm Show, Woodstock, ON
- Sept 14 Ontario Produce Marketing Association Annual Golf Tournament, Brampton, ON
- Sept 14 Grape Growers of Ontario Celebrity Luncheon, St. Catharines, ON
- Sept 18 6th Annual Toronto Garlic Festival, Artscape Wychwood Barns, Toronto, ON www.torontogarlicfestival.ca
- October 3-4 Advancing Women Conference, Fairmont Royal York, Toronto, ON

RETAIL NAVIGATOR

Why demos are effective



PETER CHAPMAN

Finding the most effective tools to drive sales should be a priority in your business. Chances are consumers understand a tomato or a potato, however if you have a new variety they will want to try it. Product demonstrations or demos are often very effective, however they are also very costly.

A demo really lifts your product above the noise. When consumers stop to try your product, the amount of focus they give your item is disproportionately greater than the others. When you think there are approximately 35,000 stock-keeping units (SKUs) in the average store, how many of these items do consumers really think about buying? If your product is being sampled it will move to the top one per cent!

There is no secret to the success of the demos at Costco where they make it part of the listing process and the execution is very good. People go to Costco looking for products to sample so they can decide whether or not to buy.

You have to accept a certain number of consumers will just eat or drink for free. No different than advertising, many will read your message but never take action. The key is getting the ones who will buy to actually pick up the item and put it in the cart.

You need to be working on demos before, during and after

Before the demo

Most of the large retailers (with the exception of Costco) will use a third party to coordinate and execute demos. Personally I believe this is wrong because it takes one of the most effective tools for suppliers and retailers and adds a lot of complexity to the process. The retailer really is looking at demos as a revenue-generating tool as opposed to a sales tool. Think of it as them renting the space. It is reality so you have to work with it. If you are participating in the retailer's locally grown campaign, often they want the grower to do the demo. This is

so much more effective than the third party. I would encourage you to make plans for this. It is difficult because they want you there when you are trying to harvest. If possible it is very valuable to find people in your organization who can take the day or two to go to the stores. Think of it as the cheapest market research you can do. Challenge your employees to bring back information from consumers and make it a project as opposed to just handing out samples. Take a few minutes to make sure they know what to say and how to talk to the consumer.

There are a number of very important things to do in advance of the demo to ensure success:

1. Develop a relationship with the demo company or the store personnel and make sure you know who to communicate with.
2. Provide the person doing the sampling with information about the product, how to prepare or sample and a list of frequently asked questions (FAQs) for the item. Remember these people are working for you and they need to understand your item. Do not assume they know anything about your product or what to do with it.
3. Coordinate inventory through the retailer's warehouse and to the stores. Most demos are never on a retailer's merchandising plan so you have to ensure the inventory flows through to the store on time. Make sure you allow for an increase in sales. There is nothing worse than investing in a demo and running out of stock part way through. Great to sell it all but what a missed opportunity!
4. Talk to your category manager about the demo and the expected sales lift. Often they never even know about demos so make sure you get credit for doing it and agree on the expected sales lift. They might have some prior knowledge from other products in the category.
5. Coordinate delivery of signage and coupons or other point-of-sale (POS) materials. The distribution channel will be slow so make sure you allow enough time. Retailers have enough challenges getting their own POS to their stores on time so don't expect they will do it for you. These stores are big so even if it gets to the store it can take two to three days to be found.
6. Demos are very costly. One

option is to consider a complementary partner. This helps reduce your costs and might provide a better experience for the consumer.

7. Promote the demos on social media. Let consumers know when and where. This can become very powerful if the retailer shares it with their followers because usually they have thousands. This is very valuable if the actual grower will be there.

8. Set targets for the demo sales and the new baseline after the demo is done.

9. Clear your schedule to be in the stores on the demo days.

During the demo

While the demo is happening you need to be a part of the action. This is the only way you will ensure you get the return on your investment and learn for the next one.

1. Create a checklist for the people conducting the demos to ensure their time is effective. Think about what you want to learn. If you are paying for the demos you need to visit the stores to ensure you are getting value for your investment.

2. If you are paying for the demos and they are in a number of stores enlist other people in other geographic areas of your business to help with the store checks. This gets them engaged and gives you important information. Provide them with the checklist.

3. Take photos of the demos and post them on social media.

4. Talk to the demo people (if you are using a third party) and get feedback. They do this all the time, so they can assess the consumer response.

5. Talk to the consumers at the demos. People love it when they feel like they have input into products and if you share a little behind the scenes information.

6. Track the sales results. If your item went into the warehouse prior to the demo ask your retailer to help you understand the sales during the demo.

7. Email a photo to the category manager. This tells them you are in the stores and it is a chance for you to remind them you are doing your part to drive sales.

After the demo



The follow up after the demo is just as important as the work prior to the sampling. You need to have the information to determine if this is worth the investment and be able to answer the question: should we do it again?

1. Get the sales through the front end prior to, during and after the demo. You will only know if the baseline sales increase if you get all three of these sales numbers. The goal should be to deliver a new baseline after you have invested in the demo. Compare the results to the targets you set.

2. Do a post mortem of all the things that went well with the demo and the opportunities for improvement next time.

3. If your store checks proved you did not get 100 per cent execution (it happens more than you think) go back to the demo company for free demos in the future.

4. Follow up with the retailer to share the results and agree on the benefits.

THE OTHER SIDE OF THE DESK

Meet in a store

Category managers don't get to spend nearly as much time in stores as they should. They get

stuck in their office and part of the glue that binds them to the office is meetings with suppliers. Often they will book full days of back-to-back meetings with one supplier after another.

One opportunity to differentiate you from the crowd is to suggest meeting at a store. This gives them an opportunity to schedule some time in the store and then you can meet where it all happens. No sales ever happen at the office.

You can stand in front of the category to see what it really looks like. Most stores have space to sit down with a coffee and have a brief meeting. My experience has been that many meetings in stores focus on the future where as meetings in the office can be stuck in the past.

If you have some ideas to make demos more effective please give me a call at (902) 489-2900 or send me an email at pchapman@gpsbusiness.ca.

Peter Chapman is a retail consultant, professional speaker and the author of A la cart-A suppliers' guide to retailers' priorities. Peter is based in Halifax NS, where he is the principal at GPS Business Solutions. 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.

FOCUS: STORAGE, CONTAINERS AND PACKAGING

Recyclable alternative coatings for corrugated boxes now outpace wax coatings

KAREN DAVIDSON

In the United States, more corrugated boxes are being shipped with recyclable wax alternative coatings than traditional wax treatments. The Corrugated Packaging Alliance announced study results in the fall of 2015, citing 10.6 billion square feet of repulpable boxes with water based coatings were shipped versus 9.8 billion square feet



of waxed treated boxes the previous year. It's the first time that waxed coatings have shown a downward trend.

The same trend is afoot in Canada says John Mullinder, executive director, Paper and Paperboard Packaging Environmental Council. There are now almost 50 wax alternatives that have passed North American certification standards for repulpability and recyclability. Progress has been made in replacing all types of wax-treated boxes whether they are cascaded, impregnated or curtain-coated.

Glue and ink manufacturers have developed new formulations that overcome the adhesion and print issues of the past. Hot-melt glue systems provide a strong bond along the carton's glue joint and new ink additives allow for better print quality. The boxes are stamped with an industry-approved logo to indicate that the box is made with certified wax alternatives that fit the criteria for full recyclability.

"It is important to have a clear understanding of how the box is being used," says Stephen Moore, account manager with Moore Packaging Corporation, Barrie, Ontario. "Where certain fruits and vegetables are cooled using ice and water and packed outdoors in all conditions, we have found that the growers want to continue using our traditional wax treatment. However for those crops that are cooled and packed in a controlled environment, we encourage them to explore wax alternatives and the response has been quite positive."

The movement has been prodded by major retailers who recognize the marketing and cost reduction opportunities that come with using wax alternatives. Recovery rates for old corrugated containers (OCC) continue to

increase and supermarkets can generate extra revenue with the return of their baled corrugate as opposed to paying for the disposal of waxed cartons. This practice demonstrates the retailer's commitment to using sustainable packaging.

At Moore Packaging Corporation, a variety of different recyclable coatings is offered in addition to curtain coat wax treatments, all of which are sourced domestically and have been approved by the Canadian Food Inspection Agency for food contact. Their line of coatings can be applied to any combination of liners: inside, outside or both.

"We always recommend a small trial run before moving to full scale production," says Moore. "This allows the grower to try the cartons in their everyday environment to ensure they are happy with the performance of the coating."

"One size does not fit all," says Moore. "So we offer common footprints and custom designs to meet the customer's needs. And we understand the importance of branding, so we have a graphic design department that can build your logo and message."

While growers are encouraging Canadian consumers to 'buy local,' they are also supporting local packaging manufacturers."

"Our industry takes a great deal of pride in our recovery efforts," says Moore. "We also understand that growers need a shipping container that can hold up against moisture. With advancements in wax alternative coatings, we can continue to be the most reliable, cost effective and sustainable packaging choice for our customers."

Prince Edward Island spruces up potato warehouses

The red soils, blue waters and green fields of Prince Edward Island are postcard-perfect. Potato growers, keenly aware of the tourist benefits, are encouraged to invest in their warehouse storage.

Each year, the PEI Potato Board sponsors the Potato Warehouse Improvement Competition under the PEI Rural Beautification Society Competition. First prize is

\$400. Runner-up receives \$200.

Entrants are required to submit photos before improvements are made and a list of the plan. Post-renovation photos are taken as well.

This year's entry deadline is June 15 at www.peirbs.ca while the deadline for completed improvements is September 1. Points are given for general appearance of

the property, absence of clutter/machinery/dirt piles, exterior appearance of the building, condition of warehouse, identification and signage, landscaping and lighting/illumination of the area.

The concept of this competition could be exported easily to other areas of the country.

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FOCUS: STORAGE, CONTAINERS AND PACKAGING

Corrugated means less use of fossil fuels

JOHN MULLINDER

When the world is rapidly moving to reduce its reliance on non-renewable fossil fuels, the corrugated produce box, not the plastic crate, is the logical choice for growers and retailers. The corrugated box originally derives from a renewable resource: trees. Canada has an enormous supply, with about one-tenth of the world's forest area. Less than 0.5 per cent of Canada's commercial forest was harvested in the latest data year with only two-thirds of what the provinces set as the sustainable limit actually cut.

By law, those trees have to be successfully regenerated. And they are. Almost 1,000 new tree seedlings are planted every minute somewhere in Canada. Our country also leads the world in third-party certification of sustainably managed forests and chain-of-custody certification.

Compare this sterling record with the extraction of non-renewable fossil fuels such as the crude oil and natural gas feedstock used to make plastic products, and you'll see where we are coming from. Those fossil fuel deposits are being rapidly depleted worldwide and their continued extraction, processing, and usage is regarded by many as a cause of global warming and climate change.

Unlike the forest sector, the oil and gas industry does not have an equivalent independent third-party certification of crude oil or natural gas extraction, nor any equivalent chain-of-custody certification for its products, as far as we are aware. Wouldn't you think that Canadian produce retailers promoting plastic crates would be insisting upon this, as they do for paper goods?

There's more. Oil and gas extraction is responsible for almost three times as much net

deforestation in Canada than the whole forest industry! Check it out for yourself on page 23 of Natural Resources Canada's annual 2015 report *The State of Canada's Forests*.

The paper industry is a major user of renewable energy, with more than 60 per cent of its mills using carbon-neutral biomass or hydro to power their plants. Fossil fuel production has a much more difficult journey to reach carbon-neutrality.

Corrugated has other environmental attributes as well. Most of the corrugated boxes made in Canada, in fact, are 100 per cent recycled (in many cases made from the very same corrugated boxes that produce retailers bale up at the back of their stores and send for recycling). We estimate that retailers received about \$50 million for this material last year. It's our feedstock for new boxes.

And virtually all Canadians can recycle them (96 per cent according to an independent study). The actual recovery rates for old corrugated are very high (an estimated 85 per cent nationally, and an amazing 98 per cent in Ontario's Blue Box system). Unlike plastic crates and most other plastics, paper materials are also compostable.

The choice between corrugated boxes and plastic crates really boils down to an economic decision in our view, although the debate is often clouded by sometimes dubious environmental claims and misinformation. Get your facts out on the table for everybody to see and be able to back them up.

The Canadian corrugated industry is justifiably proud of its environmental record and performance. The corrugated box is the renewable, sustainable option.

John Mullinder is executive director, Paper and Paperboard Packaging Environmental Council.



Photos by Glenn Lawson.

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FOCUS: STORAGE, CONTAINERS AND PACKAGING

Vacuum cooling lengthens shelf life for lettuce



University students hand harvest Romaine lettuce.



Lettuce is packed in corrugated boxes or reusable plastic containers which are stacked on pallets on a field trailer.

KAREN DAVIDSON

Let us grow lettuce. As a young man, Henk Droogendyk took the opportunity to grow a high-quality product based on methods of innovation, efficiency and commitment. For more than 25 years now, the Dutch farmer and his family have specialized in field lettuce: Romaine, Boston and Leaf varieties.

As labour costs continue to escalate, he is employing more

mechanical devices on his Princeton, Ontario farm. A vacuum chamber, for example, is now in its third year of use, for cooling freshly cut lettuce. It was sourced from Romco Industries, a Brantford, Ontario company and is serviced twice a year by Tim Boers, the system specialist from Agrimaint. Vacuum pressure is required to cool produce from outside temperatures to 1°C within 30 minutes.

A natural gas generator with a 160 horsepower engine is used

to pull the air out of the chamber creating high negative pressure, i.e. a vacuum which is directly proportional to a drop in temperature. Refrigerant cools the surrounding air molecules which is the second part of the process. This is an improvement over forced air systems which can take up to 24 hours to remove core heat from the produce. Another benefit of the natural gas generator is that it is one-third the cost of diesel fuel.

“Even bugs will be killed with this system,” says



Droogendyk's forklift maneuvers skids into place.



Three skids of lettuce can be cooled at one time in the vacuum chamber, a process that takes 30 minutes to take core heat down to 1°C.



Labelling is part of the CanadaGAP food safety guidelines for identifying lot number and pack date. Photos by Glenn Lawson.

Droogendyk. The lettuce remains fresh and crisp, and retains a long shelf life through this technology.

Growing lettuce is finicky business. Seeds are planted every four days in early March which continues into the beginning of August. Young plants are then transplanted in the field four weeks after seeding. By the end of May, a team of university students are hand harvesting the product and packing it into either corrugated boxes or reusable plastic containers (RPCs) depending on the end customer. These boxes are loaded onto pallets on a field trailer. For Romaine lettuce, one corrugated box will hold 24 heads and one RPC will hold 14 heads.

It takes one hour to harvest six pallets of produce for these efficient workers. The trailer is then driven to the farm warehouse where Droogendyk uses a forklift to place three skids at a time into the vacuum chamber.

This is repeated every 30 minutes to cool all the skids of lettuce. A tractor load of lettuce is shipped daily to Bayshore Vegetable Shippers, a wholesaler based in Burlington, Ontario.

“I’m 100 per cent a Bayshore grower,” says Droogendyk. “They stand behind the farmer and support the sale of local produce.”

The success of this growing and cooling system has encouraged Droogendyk to experiment with baby greens and spinach. He has invested in a high-density seeder from Italy, a Roopack Spimaro harvester, a Ferrari Remooved and other machinery to become even more efficient on his 60 acres.

“With California drying up, I think that buying local is catching on,” says Droogendyk. “Customers want to be closer to the farm and want to understand where their vegetables are coming from.”

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FOCUS: STORAGE, CONTAINERS AND PACKAGING

8 tips to improve the efficiency of your cold storage

JOHN WARBICK

Cold storages are no different than your vehicle. When taking a long trip, most people check over their vehicle to make sure it is operating properly and any problems are addressed. The same goes for your cold storage. Most cold storages sit idle between seasons and are fired up just in advance of the storage season. It is always a good idea to perform a regular inspection and complete needed maintenance to ensure your cold storage is structurally fit and operating properly. Your cold storage contractor can assist with preparing an inspection and maintenance schedule. Here are a few simple items storage owners can complete on their own.

1. Examine the condition of your building. Start from the roof down looking for faulty roofing and openings caused by age, wind or animals. Eaves and roof vents should be unobstructed. Outside walls and foundations should be straight and look in new condition.

2. Clear debris from your fan and condenser. Your cooling equipment will usually have a condenser unit on the outside of the building which removes heat from the building using a fan blowing air through what looks like a vehicle radiator (condenser). This fan and condenser need to be kept clear of debris and obstructions to ensure maximum air flow. Restricted air flow will reduce cooling efficiency, decrease equipment life and drive up power consumption.

3. Check doors for good gaskets that seal. Any broken or cracked seals should be replaced. Air infiltration is the second highest cooling load for a cold storage.

4. Check ceilings and walls on the inside for discolouration or signs of mold or rot. If any of these symptoms are present, they should be addressed. Concrete floors should be dry and in new condition. Floors with cracking and shifting may indicate a structural problem and a building contractor should be consulted.

5. Examine and clean the evaporator coils. Your cooling system will usually have evaporator coils which look like a vehicle radiator with a fan hanging from the ceiling. As with the outside component of the cooling system, the evaporator coils need to be examined closely and be cleaned with no air flow restrictions.

6. Contact your refrigeration contractor for updates. Before starting up your cooling system and giving it a test run, it is a good idea to contact your refrigeration contractor for any special procedures to follow.

7. Monitor the inside temperature. Once your cooling system is operating, the inside temperature should be monitored and any changes from design temperatures or previous years should be noted. Your refrigeration contractor should be consulted for possible cooling system issues.



Photo by Hugh Fraser

8. Prevent the spread of decay-causing organisms. Prior to using your cold storage, it is always a good idea to ensure proper sanitation to reduce the spread of decay-causing organisms. Take a look around for any safety issues or hazards waiting to happen. With increasing electricity rates, it

may be beneficial to have your refrigeration contractor inspect your cooling system annually to ensure it is operating at peak efficiency.

For more information, pick up the following factsheets at your local OMAFRA office or online: Troubleshooting Cold Storage Problems (94-083) and

Forced-Air Cooling Systems for Fresh Ontario Fruits and Vegetables (14-039).

John Warbick is an engineer with OMAFRA, horticulture crop systems, based at Vineland Station, Ontario.

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FOCUS: STORAGE, CONTAINERS AND PACKAGING

Ethylene-absorbing film lengthens shelf life for high-value produce

KAREN DAVIDSON

Ethylene-absorbing film is now used in Europe, a trend that could migrate to Canada.

“This product was originally developed with a corrugated packaging company in Spain,” explains Grant Ferguson, vice-president of sales and marketing for Chantler Packaging, an international company, with offices in Mississauga, Ontario.

“It’s a product geared towards high-end retailers with high-value produce such as peaches and cherries,” says Ferguson. The PrimePro Core, incorporated into micro flute material, absorbs ethylene, the plant hormone that’s released when produce starts to ripen and decay. The product extends shelf life without having to put produce into modified atmosphere packaging. The aesthetic needs of retailers are met while consumers get access to the

freshest fruit possible.

The product was developed in partnership with Flexomed, a packaging printing and graphics company based in Valencia, Spain. The firm took the PrimePro shelf life extension technology and laminated it to corrugated trays and compact boxes, leading to an easy application of ethylene-absorbing material without the requirement of additional materials or labour, such as tying, sealing, or gassing.

PrimePro Core won a LiderPack Award, annually held in Barcelona, for Best Food Packaging 2015. Efficacy of the product has been proven at the University of California-Davis at the Post-Harvest Institute.

While not available in Canada to date, stone fruit, cherries and pears would be ideal candidates for this kind of packaging presentation. These are delicate products that need to be packaged with something more robust than a tray and caddy.



SmartGuardian technology to monitor cleaning processes at all U.S. reusable plastic container wash centers

IFCO North America has completed installation of proprietary SmartGuardian monitoring technology in all six of its U.S. Reusable Plastic Container (RPC) service centers. The innovative software monitors and controls IFCO’s RPC cleaning and sanitation process to ensure it meets strict company and industry food safety standards.

“IFCO RPCs have developed a well-deserved reputation for safety, efficiency and sustainability,” said Daniel Walsh, president of IFCO North America. “As the market leader in reusable fresh food packaging, we constantly strive to improve our products and services and SmartGuardian is the latest example of our commitment to that core principle.” SmartGuardian has been installed at all six of IFCO’s

U.S. RPC processing facilities:

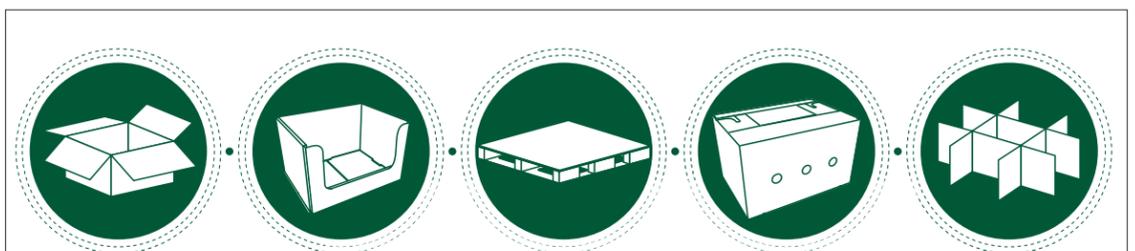
- McDonough, Georgia (August 2015)
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- Portland, Oregon (January 2016)
- Fresno, California (February 2016)

Water pressure and temperature, detergent and disinfectant concentrations and contact time are continually monitored via sensors to ensure each RPC is processed correctly. If any parameter is not in line with the specified value, the system automatically sends an alert or may stop the wash machine. Each pallet of clean RPCs is then identified with a quality label identifying the wash

location, wash machine, and the date and time the RPCs were washed. Lastly, as the pallets are loaded into trucks for

distribution, the system tracks which customers are scheduled to receive the RPCs.

Source: IFCO North America news release



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MINOR USE



CRAIG'S COMMENTS

Fixing the re-evaluation impasse

CRAIG HUNTER
OFVGA

the situation so it doesn't happen again, down the road. The following will be some of the text of my comments to PMRA regarding their proposal to alter the re-evaluation approach.

Dear PMRA,

I believe we both want to make sure that the registered pesticides available for use in Canada meet a global standard that assures the public of safety. It takes a partnership of users (growers), registrants, and regulatory officials to not only make sure the correct data is available to make such decisions, but also to ensure that products, as used, pose no unacceptable risk.

In order to make sure of the above, it takes a partnership approach all through the process. In the current process, that does not occur. The approach that you espouse in PRO 2016-02 only suggests consultation part way through the process. This is not a true partnership! Until all sides can work with trust and cooperation, you will never achieve what you are trying to attain. After careful examination of The Pest Control Products Act and Regulations, I can find no actual LAW that prevents you from doing any of the following. If you have internal policies, directives, and guidelines that you feel constrain change, please feel free to ignore them, change them, make exception to them, or likewise create a workable solution in spite of these prior self-imposed limits on activity. This is actually legal to do, notwithstanding some interpretations!

The start has to be with open and transparent communications with the other partners. It must start at the beginning of the re-evaluation process. Before a date has been set to commence a review, PMRA should already know what they have in terms of data, in the file of that active ingredient. That can determine what further data is needed before any risk assessment is calculated. The start of the process begins when all the

partners first sit down, review what these data "gaps" may be, but only after careful examination of the current actual use patterns and comparison to current labels. There may well be uses no longer needed.

There may be pending minor use expansions that need to be considered as well. Each partner needs to make commitments of what they can/will produce, and by a set date. Full and open disclosure helps to keep folks on time and keeping commitments. PMRA should not (ever more) have to make recourse to generic numbers, inappropriate databases, or to data not appropriate for use in Canada.

In the past we have seen the use of provincial water quality data; some of it highly questionable for use to predict pesticide levels in surface and/or ground water. Any and all such solicited data should come with a pedigree that is available to all. If a 'witch-hunt' of wells or water courses was conducted after a known spill, it should be so noted. (It may be interesting data, but not applicable to an estimation of soil/water residues following labelled use) If the data is from known field trials where active ingredient has been applied at known doses, yet non-detectable amounts are found in some sites, then by all means the standard use of half the level of detection makes sense. It does NOT make sense to use this technique when it is not known if the active WAS EVER APPLIED THERE! However, that has been done in the past and has led to widely exaggerated assumptions of levels in certain sites. Even worse, the use of a model to create a positive number of a residue in water is highly questionable when the actual use pattern would only be for a tiny fraction of the land area feeding an aquifer. What works in a model for a confined trial with a (tiny) amount of soil is inappropriate for Canada-wide decisions.

The current approach is very heavy on determining the worst case (and beyond that) of



potential hazard. It has even more shortfalls in the mitigation of risk after examining the use patterns. Once again, the use of models falls far short of actual examination of the current use scenarios. Even registrants may be behind the current use scenarios due to the rapid changes that are happening in the field. Once again, a real partnership would mitigate that lack of knowledge. It would seem there is good confidence that growers will read and follow the instructions for the care needed in mixing, loading and application of the product. We were always taught that handling pure product before dilution with water was the most risky part of exposure to the pesticide. It appears that while there is confidence about this part of the exposure, there is angst about the exposure to (much lower) residues on the plant to the point that the use of the pesticide is now deemed unacceptable.

Part of this is because 'estimates' of field activities have been grossly overestimated. Part of this also has to do with the use of estimates of how much of the residues on a plant actually rub off onto a worker. Further, the estimates of the longevity of active residues of any/all pesticides on a leaf leave a lot to be desired. Lastly, but most importantly, there is no consideration for the use of protective clothing in post-application situations to reduce even the small amounts that could be transferred to a worker.

Once again an 'unwritten' rule 'exists' that since workers may not necessarily read a label, they would then be unable to know what clothing to wear in what fields. This is coming from

the same folks who assume a grower will ensure the re-entry times are obeyed, the pre-harvest interval is adhered to, and that all safety equipment is used by themselves or any farm worker when applying the pure pesticide!

I am sure all your staff feel they are professionals. Would it surprise you to learn that growers are also professionals? Do they not deserve the credit for the Grower Pesticide Safety Course they take? Do they not get credit for the On-Farm Food Safety Courses they take? Nor the audits they must pass to stay in business? Then there are the workplace worker safety committees that all growers must create when there are five or more workers. This requires growers to meet with workers to discuss such issues, and to ensure compliance. Farmers take affront when it appears they are being treated the way it appears you have been treating them.

Partnerships work. We have lots of examples. The way to work in the future demands partnerships in order to be successful. We know that just as you are professional and want the best outcomes, we too expect better consideration of our skills and professionalism than the immediate past has shown.

The problems inherent in these eight re-evaluations may have been just the catalyst to 'get it right' down the road. We fully expect significant changes to the current proposals, based on the data that we and the registrants provide. Anything less would be unimaginable.

Yours sincerely,
Your Partner, A Grower

Usually it is the press who fumes about getting government papers that are heavily 'redacted.' (That means that some/all of what had been contained in the notes has been deleted or blacked out.) I sat down a few days ago and wrote a piece about just what I thought about the current state of the fungicide re-evaluations at the Pest Management Regulatory Agency (PMRA). These products are the backbone of all our plant disease management programs in virtually every crop grown in Canada, and include: Bravo (Echo), Captan (Maestro), Rovral, Thiram, Ferbam, Ziram, Polyram and mancozeb. These are a virtual who's who of multi-site fungicides that are excellent controls in their own right, but prop up all the other registered single-site fungicides to avert, prevent or at least mitigate the effects of pest resistance that develop quickly to single-site products. My first article actually got a little personal and included allegations that came from the heart.

I decided, upon proof-reading it, to start my own redacting process, just to spare any serious repercussions. Hence this new column, as all that was left of the old one was the title! Over the years of writing this column I have never been so het up about an issue. (About some people, yes, but not about a single issue.) In order to actually have a column this month, I decided to focus on how to fix

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MINOR USE

Bayer launches first-ever Group 5 fungicide for Canadian wine grapes

On April 19, 2016, Bayer announced the launch of Priwen fungicide for control of powdery mildew in Canadian wine grapes.

“At Bayer, we are dedicated to pursuing new tools that address specific needs for growers,” said Jon Weinmaster, portfolio manager, horticulture, at Bayer CropScience Inc. “As the only Group 5 fungicide available for wine grape growers in Canada, Priwen not only offers growers a new and unique foliar fungicide, but one that is highly effective against powdery mildew.”

Priwen offers xylem-mobile systemic protection, moving to the leaf tips and underside of leaves.

“Thanks to its unique active ingredient, Priwen is also an excellent rotation and resistance management tool, which supports wine grape growers’ efforts to manage tough diseases year after year,” said Weinmaster.

Priwen is formulated as a 500 g/L emulsifiable concentrate and is available in 1L jugs, with 12 X 1L jugs per case.

For more information regarding Priwen, growers are encouraged to talk to their local retailers, visit www.cropscience.bayer.ca/priwen, or follow @Bayer4CropsCA on Twitter.

Source: Bayer news release



Pardner herbicide label expanded for management of weeds in carrots grown on muck soil in Canada

JIM CHAPUT

The Pest Management Regulatory Agency (PMRA) recently announced the approval of an URMULE registration for Pardner Herbicide for management of weeds on carrots grown on muck soils in Canada. Pardner Herbicide was already labeled for use on a wide range of crops for weed control in Canada.

This minor use project for carrots was sponsored by Quebec Horticultural Council in 2013 as a result of minor use priorities established by growers and extension personnel.

The following is provided as an abbreviated, general outline only. Users should consult the complete label before using

Pardner Herbicide.

Pardner Herbicide is toxic to aquatic organisms and non-target terrestrial plants. Do not apply this product or allow drift to other crops or non-target areas. Do not contaminate off-target areas or aquatic habitats when spraying or when cleaning and rinsing spray equipment or containers. Follow all other precautions and directions for use on the Pardner label carefully.

For a copy of the new minor use label contact your local crop specialist, regional supply outlet or visit the PMRA label site <http://www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php>

Crop	Target	Rate (L/ha)	Applications
Carrots grown on muck soil	Labeled weeds	1.0 – 1.2	1 (One) - apply 3 – 4 days prior to crop emergence. 45 days pre-harvest interval.



Quadris fungicide label expanded for control of Anthracnose (leaf curl) on celery in Canada

JIM CHAPUT

The Pest Management Regulatory Agency (PMRA) recently announced the approval of an URMULE registration for Quadris fungicide for control of Anthracnose (leaf curl) on celery in Canada. Quadris fungicide was already labeled for use on a number of crops in Canada for control of diseases.

This minor use project was initiated in 2015 and submitted to PMRA by Ontario as a result of minor use priorities established by growers and extension personnel.

The following is provided as an abbreviated, general outline only. Users should be making pest management decisions within a robust IPM program and should consult the complete label before using Quadris fungicide.

Quadris fungicide is toxic to aquatic organisms. Do not apply

this product or allow drift to other crops or non-target areas. Do not contaminate off-target areas or aquatic habitats when spraying or when cleaning and rinsing spray equipment or containers. Azoxystrobin is persistent and will carryover. It is recommended that this product not be used in areas treated with azoxystrobin during the previous season. The use of this product may result in contamination of ground water, particularly in areas where soils are permeable (e.g. sandy soil) and/or the depth to the water table is shallow.

Follow all other precautions and directions for use on the Quadris fungicide label carefully.

For a copy of the new minor use label contact your local crop specialist, regional supply outlet or visit the PMRA label site <http://www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php>

Crop	Target	Rate (L/ha)	Applications	Pre-harvest interval (days)
Celery	Anthracnose (Leaf curl)	1.12	Maximum of 3	1



Note: This article is not intended to be an endorsement or recommendation for this

particular product, but rather a notice of registration.

Jim Chaput is minor use coordinator, OMAFRA, Guelph, ON



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CONSUMER OUTREACH

New national network aims to earn public trust in Canadian food



A new collaboration network with a focus on food will be coming to Canada soon with the launch of The Canadian Centre for Food Integrity (CFI). Farm & Food Care Canada, a national charitable organization with the vision for building public trust in food and farming, will be introducing The Canadian CFI at their first annual Public Trust Summit in Ottawa May 31-June 1.

Farm & Food Care Canada is a unique coalition created in 2011 that works together with many partners from farmers to associations and food companies from coast to coast with a shared commitment to provide credible information about food and farming to Canadians.

The Canadian Centre for Food Integrity will be a new division of Farm & Food Care Canada and an affiliate of The Center for Food Integrity based in the United States. This will provide a unique North American



approach and perspectives on the questions and conversations about food in our increasingly interconnected global food system.

“Public demand for transparency is growing and consumers want to know more about how their food is produced and who’s producing it,” said Crystal Mackay, Farm & Food Care Canada CEO. “The new Canadian Centre for Food Integrity will work with its members and the Canadian food system at large to share information and demonstrate our values when it comes to outstanding animal care, environmental stewardship and producing safe food.”

The inaugural Canadian Public Trust Summit will encourage collaborative discussion and learning for many farm and food system leaders, while providing concrete actions for the future. Pre-registered for the Summit already are more than 150 of Canada’s food, farming, and food industry leaders from across all



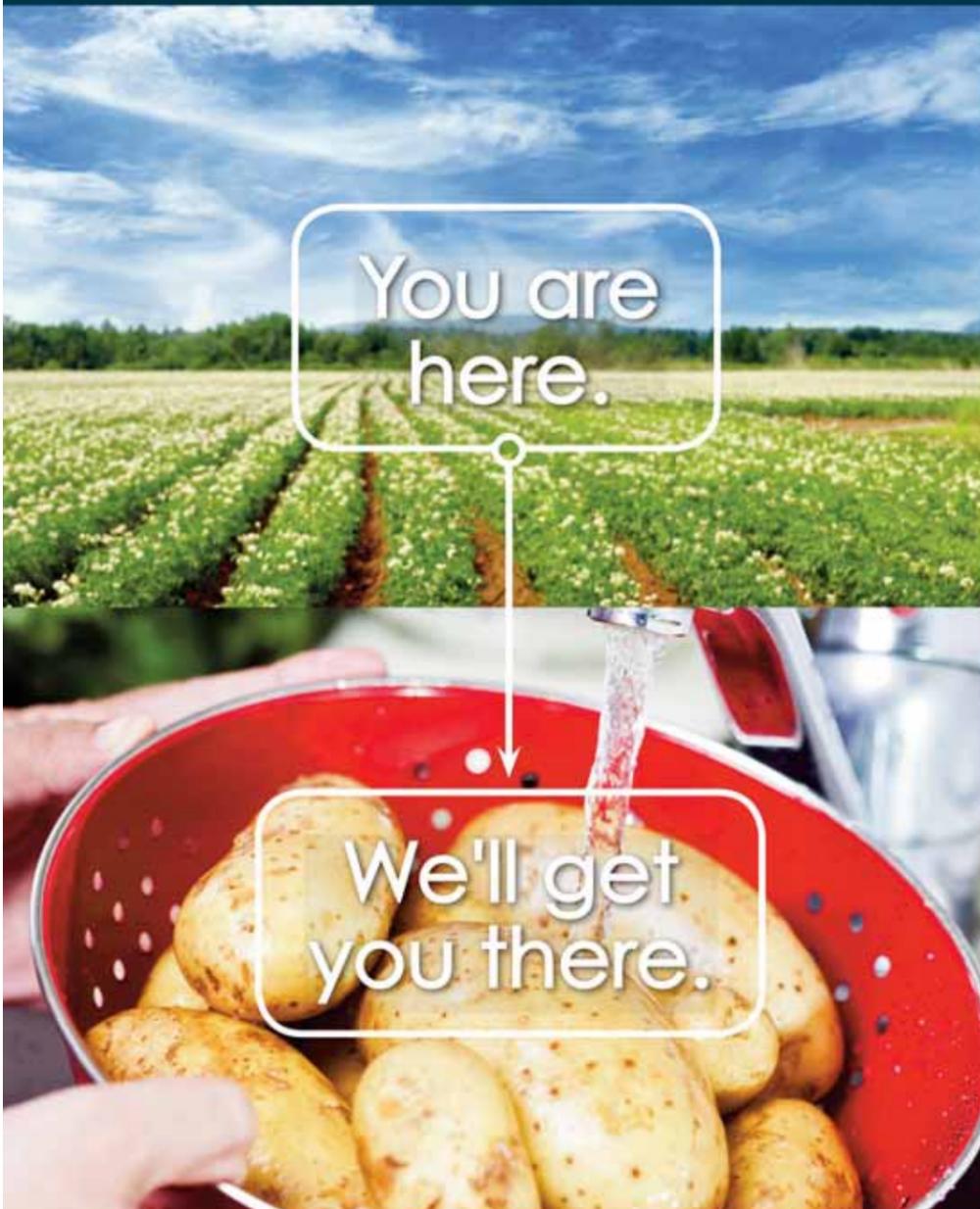
Photos by Glenn Lawson

sectors from aquaculture to vegetables. Their aim will be to:

- Be among the first to hear new, extensive Canadian research on public trust in food and farming;
- Learn from a roster of speakers from the United Kingdom, the European Union and the United States highlighting lessons learned from their parts of the world related to public trust in food and farming;
- Help shape the future discussions on food and farming in Canada.

With farm food industry leaders from across Canada attending, a suite of global speakers, and the launch of new Canadian research, the Public Trust Summit and the new Canadian Centre for Food Integrity is setting the table for success.

To learn more about the summit and the work of Farm & Food Care Canada and the new Canadian CFI visit www.FarmFoodCare.org/canada.



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