

CONTINUOUS IMPROVEMENT

How Ontario's tender fruit growers are taking care of business

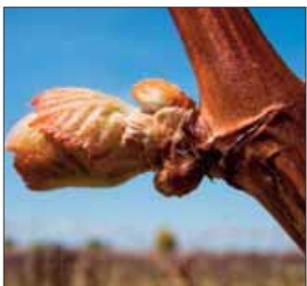


Ontario's tender fruit industry is eagerly anticipating the 2016 season with the promise of a loyal consumer market and stronger prices. Several research projects are underway to improve cold chain management and to ensure a consistent eating experience. Peach and grape farmer David Hipple is one of the research participants near Beamsville, Ontario. Here, he's pictured in his Harrow Diamond peach orchard with Mexican workers Vincente Perez (closest), Erasmo Grandos and his faithful field supervisor, Cadbury. Photos by Denis Cahill.

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KAREN DAVIDSON

Beamsville, Ontario – The future is looking in the pink right now. That's what David Hipple sees as he walks his 150 acres of tender fruit orchards and grape vineyards.

How times have changed since an industry consultant's report from 2010 said, "Fragmentation, lack of collaboration and inconsistent application of quality control techniques across the value chain greatly weaken the industry's value proposition to consumers, and ergo, retailers."

For Hipple and 300 other Ontario tender fruit growers, the criticism stung. Although proximity to market is an advantage over California peaches, they realized that the local food trend could not carry them entirely. They needed to sell retailers – and their customers -- on a consistent

eating experience.

It's an industry worthy of investment with farmgate receipts in 2015 of \$56 million. Of that, peaches in fresh and processing forms account for nearly two-thirds of the Ontario crop value. With those hard numbers as a backdrop, a strategic plan launched Fruit Tracker software for orchard and logistics management. More objective quality measurements such as brix testing, for example, are now used to evaluate sweetness and appropriate picking times.

"Strategic plans need tactical execution," says Sarah Marshall, manager of the Ontario Tender Fruit Growers. "That document helped identify the gaps in knowledge and where research and capital investment should be spent to better the industry. That research and investment starts at the grower level, but also has to focus on the needs of the entire

“
Strategic plans need tactical execution.
~ SARAH MARSHALL

”
marketing system. A well-executed plan with long term commitment to change will elevate the profitability of all of our partners.”

The updated 2013 business plan identified specific priorities: a forced-air cooling best practice guideline for harvest 2015 and a goal of implementation for 80 per cent of Ontario tender fruit by 2020; a goal of 80 per cent grower participation in Fruit Tracker by 2016; an annual innovation workshop with a goal of 80 per cent of Ontario's tender fruit production represented.

Hipple is participating in

several research projects, one of which is the installation of field sensors. The idea is to track temperatures from the field -- by individual skids -- through the packing house right through to the grocery store. Cold chain management is particularly important with tender fruit. If peaches are not cooled properly, the eating experience will be compromised by mealiness.

As Hipple explains, there are different picking containers in orchards: baskets, bins, plastic totes.

CONTINUED ON PAGE 3

AT PRESS TIME...



L-R, Ron Lemaire, CPMA president; Roshan Advani, Canadian Grocer; Emily Muraccas, Mucci Farms; Mike Furi, The Grocery People and 2015/2016 CPMA chair.

CPMA highlights

The Canadian Produce Marketing Association (CPMA) held its 91st annual convention and trade show in Calgary in mid-April. Convention awards included:

- Fresh Health Award to BC Fresh for its efforts in promoting the Half your Plate program
- The Mary Fitzgerald Award to Jennifer Harris, marketing director of Mid-Isle Farms, Albany, Prince Edward Island.
- CPMA Lifetime Achievement Award to Tom Bytynen, formerly of Thomas Fresh

Outgoing CPMA chair Mike Furi, The Grocery People, was recognized with The Packer Canadian Produce Person of the Year Award.

Congratulations to Larry McIntosh and his team at Peak of the Market for winning CPMA's Most Creative Booth Award.

CPMA's Freggie Approved

Product Award was presented to Mucci Farms for their innovative product designed for children: Smuccies sweet greenhouse-grown strawberries, pictured above.

Loblaw to open 50 new stores

Canada's biggest grocer plans to spend \$1B to open 50 new stores and renovate 150 others. The stores are to include various banners as well as Shoppers Drug Mart locations. No news yet on where these new stores will be located.

Loblaw already operates more than 2,300 retail stores including No Frills and Real Canadian Super Store banners. Loblaw will release its first-quarter results on May 4.

More bloggers on website

The Grower is pleased to introduce first-generation farmer Andrew Lovell as a new blogger on our website: www.thegrower.org. Lovell attended New Brunswick Community College's agriculture program, graduating in 1999. He's unusual in that he didn't grow up on a farm, but followed his passion, purchasing a farm in 2012. Andrew and his wife Jennifer are apple growers at River View Orchards, Keswick, New Brunswick. This past winter, they were named Outstanding Young Farmers for Atlantic Canada.

"Since buying the farm, I wanted to share my excitement with kids so maybe they will want to be farmers someday," he says. "We have implemented a pilot program with some schools and now, we're planting pumpkins in our second school in our area. These kids are going to get these pumpkins started and then plant them in our fields."



Andrew Lovell

NEWSMAKERS



Matthias Oppenlaender

Matthias Oppenlaender is the new chair of Grape Growers of Ontario. German-born, he emigrated in 1984 to Canada where he now farms more than 400 acres of vineyards near Niagara-on-the-Lake. He is joined by vice-chair Bill Schenck and the following directors: Steve Pohorly, Erwin Wiens, Jim Morrison, Brock Puddicombe, Debra Marshall, Scott Wilkins, Kevin Watson, Doug Funk Jr.

Farm & Food Care Ontario has named Andrew Campbell, Strathroy, Ontario, its 2016 recipient of its Champion Award. The dairy farmer has been a leader in telling agriculture's story in a positive approach through social media.

Condolences to the family and friends of Dave Lambert, Niagara-on-the-Lake grape grower who passed away in mid-April. He was a former chair of the Ontario Fruit and Vegetable Grower's Association property committee, chair of the Fresh Grape Growers' Marketing Board from 2014-2016 and an avid member of many agricultural committees. He was 55.

At the Ontario Tender Fruit Growers Association annual general meeting, the following board was elected for 2016/17: Phil Tregunno, chair; John Thwaites, vice-chair; Dave Enns, David Hipple, Fred Meyers, Leo Devries, Brock Puddicombe, Rusty Smith, Ken Porteous. The 2015 Award of Merit honoured Abe Epp, a longtime tender fruit grower for his contributions, particularly to the nectarine industry.

The PEI Wild Blueberry Growers Association will continue with John Handrahan as chair after their recent annual meeting. He is joined by Phillip Jennings, vice-chair, Merrill Wigginton, treasurer, David MacNearney, secretary. Newly elected director is Leigh Jenkins, joined by Robert MacLean, Kevin Carver, Colin MacAulay and John MacDonald.

Scotian Gold Co-operative based in Coldbrook, Nova Scotia has announced the retirement of David Cudmore, CEO, after 33 years of service. The company is now helmed by David Parrish, who was previously chief operating officer.

Sylvain Charlebois, frequent TV commentator and contributor to the Globe and Mail, is leaving the University of Guelph's Food Institute and moving to Halifax. Effective July 1, he becomes dean of the faculty of management and professor in the faculty of agriculture at Dalhousie University.

Belated welcome to Carolyn Teasdale, British Columbia's new industry specialist for berries. Based in Abbotsford, she has taken over from Mark Sweeney, who retired last fall. Look to page 20 for a B.C. perspective on spotted wing drosophila.

Condolences to the family and friends of Norman Looney, who built a distinguished career as principal research scientist, Pacific Agri-Food Research Centre, Summerland, British Columbia. He made significant contributions on Canadian expert committees on tree fruits as well as presidency of the Canadian Society for Horticultural Science and Agriculture Industry of Canada. One of his greatest legacies was the outreach he maintained with the Food and Agriculture Organization of the United Nations and his work with states in Eastern Europe, sub-Saharan and Northern Africa. He passed away March 24 in Vancouver, B.C.



Herb Sherwood

Best wishes to Herb Sherwood, advertising sales representative for The Grower for the last nine-and-a-half years. He has been a familiar face at horticultural trade shows and been the friendly telephone voice to our advertisers. He leaves May 31 for a well-earned summer vacation and new opportunities beyond.



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COVER STORY

How Ontario's tender fruit growers are taking care of business

CONTINUED FROM PAGE 1

"We don't know yet if slower picking results in better quality or how travel time on packing lines are affecting core temperatures."

Jennifer DeEll, fresh market quality program lead, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) has been studying the susceptibility of Ontario-grown peach varieties to chilling. Chilling injury, she explains, is genetically influenced, triggered by a combination of storage temperature and duration. Symptom intensity and its onset varies with cultivar, cultural practices, fruit maturity at harvest, postharvest handling, growing location and seasons.

In her 2015 project, 7980 peaches were tested and tasted. Chilling injury developed faster and with higher incidence at 5°C versus 0°C. When background colour was more green than yellow at harvest, fruit would not ripen and soften properly. Fruit from later harvests often tended to be more susceptible to chilling injury. Allstar, Coralstar and Glowingstar peach varieties tend to be prone to bleeding in

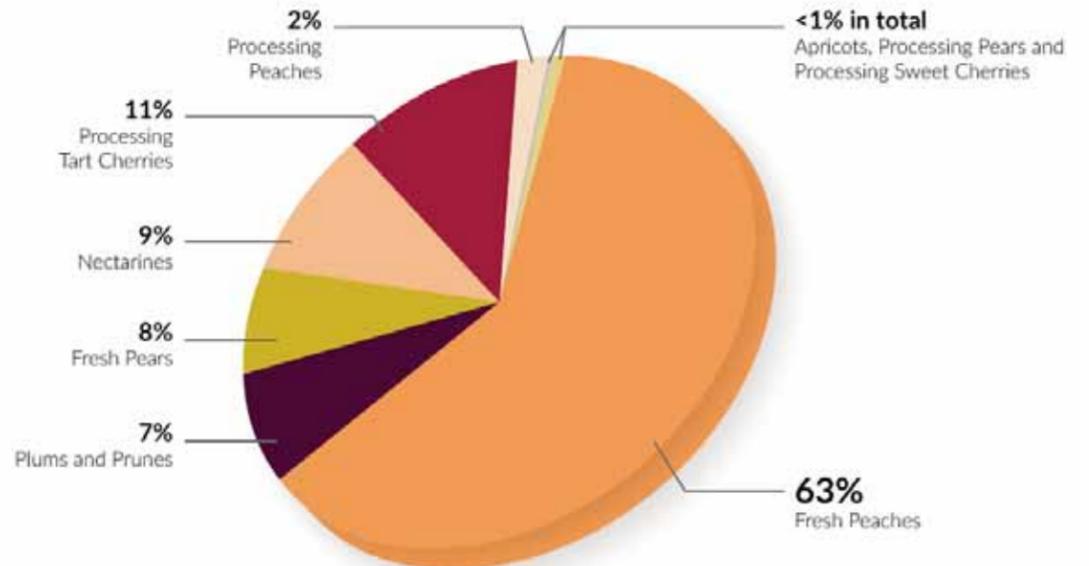
the flesh from the pit outward.

DeEll is also investigating temperature conditioning where peaches are held at 10°C for two days prior to cold storage at 0°C. First-year results show substantial reduction in chilling injury when fruit was preconditioned. Fruit appeared to maintain similar firmness and other quality attributes as those placed quickly into 0°C.

This summer, DeEll will continue to rank chilling susceptibility in Ontario peaches and nectarines, including a test at 5°C and using products to control ethylene production.

Vineland's postharvest specialist Bernard Goyette is tracking factors that affect fruit quality from harvest through retail. Temperature stays fairly constant, he reports, but may rise slightly if the peaches are exposed to direct sunlight before they reach the on-site storage entrance. Physical attributes of the dumping container affect the peach. A smaller picking container restricts the distance that fruit can fall when tipped. Container size also affects the efficiency of the cooling process. Design of the dumping system and time to process through the packing line is important.

Data to date shows that



Three-year Average Ontario Crop Value 2011-2013.

temperatures rise during transit from 2°C to 4°C. Vibration impact is minimal. In summary, Goyette says the largest vibration impact is from skid movement. Cold chain storage temperatures are difficult to maintain at optimum levels for peaches.

No strategic plan would be complete without thinking about genetic innovation. Faster access to *Prunus* cultivars under Ontario conditions is needed. Working with Vineland Research and Innovation Centre, the Canadian Food Inspection Agency and the University of Guelph, the industry looks forward to a new, streamlined process for virus testing and micro-propagation of commercial quantities of fruit trees.

As Einstein said, the definition of insanity is doing the same thing over and over again, while expecting different results. In the last few years, Ontario's tender fruit industry has reinvented itself. Dave Lepp, director of operations at Vineland Growers' Cooperative, observes, "There's now a future. I see the next generation of young growers making a difference. They're tech-savvy. They're keen."

Photo right: Tender fruit grower Ryan Tregunno watches Loblaw's Pat Gilbert conduct a brix test on yellow plums.



INTERNATIONAL

NEW ZEALAND

New apple to launch in China



Bright red and sweet, the new Breeze apple should appeal to the Chinese market, according to Shenzhen Yuanxing Fruit. The Chinese packer, importer and distributor supplies major retail chains in Hong Kong and mainland China.

As one of the earliest maturing apples from New Zealand, the apple was launched earlier this spring in Guangzhou, Southern China. The variety is owned by New Zealand's Freshco which has been developing the apple since 2008.

Source: FreshPlaza.com

VIRGINIA STATE

Bee vectoring tested in fight against fire blight

Virginia Tech's Agricultural Research and Extension Center is testing a novel way to control fire blight in apples and pears. The idea is for patented bees to deliver doses of streptomycin to the tree buds thus reducing the need for sprays.

Bee Vector Technologies CEO Michael Collinson says, "The consistent daily delivery of preventative, beneficial inoculants by bees during the critical bloom period makes this system a compelling solution for growers."

If the trials are deemed successful, the bee vectoring route of administration would replace sprays of streptomycin, an antibiotic currently used to protect against fire blight. Results are expected in August 2016.

Source: FreshPlaza.com

WASHINGTON STATE

Early spring spurs cherry bloom

Spring 2016 is now in the history books as the third-earliest bloom on record for Washington state cherry growers. Scott Marboe, Oneonta Starr Ranch Growers, says that the early start may also predict an early finish.



First harvest could start as early as May 30 with volumes strong for the July 4 American holiday weekend. Picking could be finished by early to mid-August. Summer temperatures will dictate the season's progress.

Source: FreshPlaza.com

EUROPE

Bio-insecticides market growing for thrips control

An international report estimates the bio-insecticides market for thrips control will be worth \$418 million (US) by 2020. The U.S. and Canada are the second largest market after Europe.

The popularity of bio-insecticides is attributed to quality, environmental-friendliness and reduced toxicity. The major formulations are liquid, water-dispersible granules, wettable powder and pellets. The liquid formulations of bio-insecticides are the most preferred due to their advantages such as longer shelf-life, easy handling, transportation, cost-effectiveness, and sustainability.

Thrips puncture the cells of leaf surfaces to feed on plant juices. The result is a blemished and unmarketable crop.

Source: HortiDaily.com

UNITED KINGDOM

Grocer reduces food waste

A major grocer in the United Kingdom has extended its Perfectly Imperfect brand with parsnips and potatoes to fruit. Tesco is now offering two grades of strawberries and apples.

Tesco's commercial director says high levels of waste have been experienced with parsnips in store, so specifications have tightened. What consumers won't buy -- second-grade potatoes for example -- are now sent to another partner for mashing. Thirty-five tons of potatoes per week now goes into ready-made meals. Lower grade apples can be sent for juicing.

These partnerships mean that Tesco is now taking 95 per cent of suppliers' strawberries and 97 per cent of British apple growers' crops.

Source: HortiDaily.com

CROSS COUNTRY DIGEST

NOVA SCOTIA

Nova Scotia producers rent beehives to increase yields

The organization representing wild blueberry growers in Nova Scotia says profit margins are expected to be so low that growers need as many bees as possible to pollinate crops this spring.

Peter Rideout, executive director of the Wild Blueberry Producers Association of Nova Scotia, says continuing to import bees from Ontario is necessary because there are not enough local hives.

Nova Scotia's Minister of Agriculture Keith Colwell has said new measures to import bees from Ontario are necessary to balance the needs of the blueberry and bee industries.

Blueberry growers are renting the 5,000 hives from beekeepers in Ontario and the colonies will

be imported to Nova Scotia for a few weeks during the spring bloom, which is expected to happen the end of May and the first two weeks of June this year.

The province says it is sending an inspection team — made up of local beekeepers and blueberry growers — to Ontario to examine the individual hives before they're shipped to ensure they're not infested with the small hive beetle.

Rideout says he's confident about the control measures the province is putting in place. A course will train volunteers with his organization to assist inspecting the hives before they come to Nova Scotia.



BRITISH COLUMBIA

Project funding approved for additional apple maggot trapping

A single apple maggot was found at a West Kelowna residential lot in 2015. For the remainder of 2015, no other traps or fruit were identified with apple maggot, so the Canadian Food Inspection (CFIA) continues to support a quarantine of the Okanagan-Similkameen-Creston valleys as free from the pest. Specific to the residential neighbourhood

where the single detection occurred, the property and surrounding properties are under order not to move fruit, soil or trees from those lots. All host trees in the area have been mapped. The CFIA will more intensively trap around the single detection in 2016.

Leading up to the single detection 2015, a new trapping protocol was established based

on research by Howard Thistlewood. One-third of the interior apple-growing area was to have apple maggot traps each year, and each year would sample a new area. That way, the whole valley would be sampled in a three year period. Since the detection in 2015, a steering group met to discuss the trapping for 2016, and it was agreed to speed up the

sampling process with the remaining two-thirds of the BC interior apple-growing area to be sampled in 2016. However, CFIA resources only allowed one-third of the area to be sampled each year. Susanna Achaempong, tree fruit entomologist for the BC Ministry of Agriculture, assisted in gaining approval for funding the final one-third

of the interior apple-growing area in 2016. The funding is provided through the federal-provincial Growing Forward 2. The British Columbia Fruit Growers' Association is the project applicant and the Sterile Insect Release (SIR) program is assisting in placing the traps.

Source: BC Fruit Growers' Association newsletter



Following a successful 7th Annual Hazelnut Symposium, the Ontario Hazelnut Association (OHA) is pleased to announce the six growers that will be planting ten acres this spring as part of the Ontario Hazelnut Association's Grower Trial Project. Andrew & Amanda Pilot (Smithsville), Earl Hughson (Uxbridge), Graham Dyer (Port Dover), Michael Gladstone (Morpeth), Andrew Dalgleish (Wheatley), and Mark Brown & Sarah Rowland (Wardsville) are pictured above (left from right). Jorge Acevedo (far left) of Ferrero Hazelnut Company and Ernie Grimo (far right) of the Society of Ontario Nut Growers were on hand to show their support for this project.

The OHA, in partnership with each grower, will be hosting farm tours and workshops in the Fall and Spring throughout 2017. This project is funded in part through Growing Forward 2, a federal-provincial-territorial initiative. The Agricultural Adaptation Council assists in the delivery of Growing Forward 2 in Ontario.

**For more information, please contact
Andrew Nixon, OHA Project Manager, anixon@alumni.uoguelph.ca.**

ALBERTA

The Little Potato Company is growing bigger



Angela Santiago

The Little Potato Company plans to develop and operate a new \$20 million U.S. head office and processing facility in the village of DeForest near Madison, Wisconsin. This new facility will supplement the company's Canadian head office in Edmonton, Alberta.

This expansion will feature state-of-the-art equipment designed to service customers throughout the U.S. when fully operational in early 2017. The site was chosen for its proximity to an exceptional agricultural region and experienced, passionate growers, access to major transportation and logistics networks, and the availability of skilled workers.

"We are delighted with this new investment that represents

our ongoing commitment to make a consistently exceptional product more available to our customers," said Angela Santiago, CEO and cofounder of The Little Potato Company. "This is particularly significant in our 20th anniversary year when we celebrate our leadership in service and innovation." The Little Potato Company has a significant grower and distribution network throughout the U.S. and Canada for its proprietary line of Creamer varieties, including Baby Boomer and Blushing Belle, and its value-added innovative Microwave and Oven/Grill Ready packs featuring the same high-quality Creamers and gluten-free spice packs with no added flavours, preservatives or colours.

The company currently has two sorting, washing and packaging facilities and five distribution centers throughout the U.S. and Canada, in addition to the newly announced U.S. head office and plant near Madison, Wisconsin.

For a video interview with Angela Santiago taped at the Canadian Produce Marketing Association trade show in Calgary, go to www.thegrower.org.

LABOUR

Seasonal Agricultural Workers Program marks 50 years



Alex Corona has come to Springridge Farm, Milton, Ontario for the last 27 years. In the early years, he rode his bike into town for English lessons. He spends winters with his family two hours outside of Mexico City.



Ernestina Rodrigues-Diaz (L) has worked as an experienced packer for five years at Tregunno Farms, Niagara-on-the-Lake, Ontario. She and her co-worker come from Mexico.



This is the 30th year that Jamaican Donald (Rocky) Dyer has harvested broccoli at Ken Forth's Lynden, Ontario farm. Profiled last year in John Deere's Furrow Magazine, Dyer says that working in Canada has allowed him to finance the schooling of four children.

As farmers across the province get ready for spring and the upcoming growing season, Ontario's Seasonal Agricultural Workers Program (SAWP) is marking a major milestone. The internationally acclaimed program is celebrating its 50th anniversary supplying Ontario farmers experiencing domestic labour shortages with seasonal workers

from Mexico and the Caribbean. Approximately 17,000 seasonal workers from Mexico, Jamaica, Barbados, Trinidad/Tobago and the Eastern Caribbean States are expected to be placed at Ontario fruit and vegetable farms this growing season as a supplement to local labour through SAWP. Approximately 1,450 farms will benefit from the program this year.

"We're extremely proud that we've been able to help our horticultural industry thrive and grow over the past half century," says Ken Forth, president of Foreign Agricultural Resource Management Services (FARMS), which administers the program. "Ontario produces some of the highest quality fruits and vegetables in the world. Without the supplemental labour they hire

through SAWP, many of our growers just wouldn't be able stay viable." The program got its start in 1966 when 263 seasonal workers from Jamaica were brought to Ontario to fill a shortage of

“**We're extremely proud that we've been able to help our horticultural industry thrive and grow over the past half century.**

~KEN FORTH

available Canadian workers. Over the past 50 years the program has grown steadily and has consistently exceeded expectations, providing Ontario farmers a steady source of reliable, skilled and professional labour.

At the same time, the program has given seasonal agricultural workers employment, benefits and educational opportunities not available to them at home.

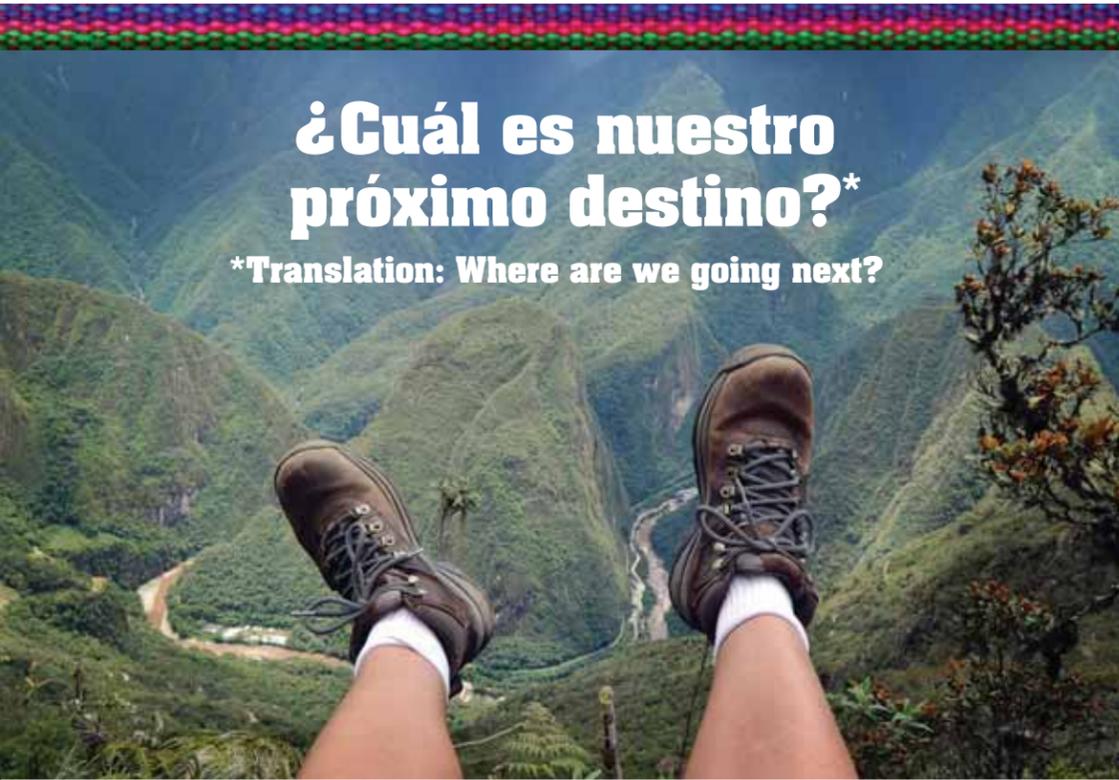
Because SAWP is a

"Canadians first" program, supplementary seasonal farm labour is hired from partner countries only if agricultural operators cannot find domestic workers to fill vacancies. "Half a century after it was created, this program continues to serve the same vital function on an even larger scale," says Forth.

Management tips for seasonal workers

As seasonal agricultural workers arrive in Canada for the 2016 growing season, Ken Forth offers a few reminders on paperwork.

- Photocopy each contract and work visa for your files, ensuring that each worker has signed it
- Check if \$5.45/day in the contract has been initialed by the worker. If not, you can't deduct.
- If advances are paid (cash is alright) through the payroll system, a form of authorization is needed to recapture the advance through future payrolls
- Be sure the worker has signed the main contract



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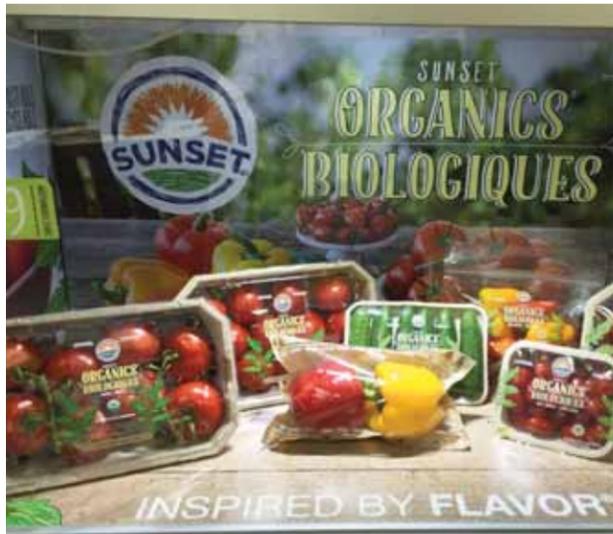
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CANADIAN PRODUCE MARKETING ASSOCIATION

Latest packaging trends displayed at CPMA



Sunset Organics use fibre pint with top seal.



Consumers are front and centre on Earth Fresh potato bags.



Evergreen Herbs launches an Organic Farmer's box which offers flexibility as the season progresses.

PETER CHAPMAN

The theme of the 2016 CPMA convention was growing strong and there was lots of evidence of this in Calgary. Growing strong is not limited to production. There was plenty of evidence that producers are growing strong in packaging and providing food solutions for consumers. Retailers are always

looking for products that will generate incremental sales and keep the consumer in their store.

Packaging looks forward and back

There were some interesting new packaging options on display. Some were a retro look on organics and others were using new technology to convey

a more contemporary feel. A number of producers including Sunset, Star Produce and Topline Farms are using fibre pints with a top seal on organic tomatoes. The package gives a farm market look with the fibre and the top seal protects the product from being damaged or handled. This new option looks great and it delivers the product to the warehouse and the store in a format that works for the

retailers. Sun Select has launched a new grape tomato bag that looks just like a mason jar. This new die-cut bag definitely grabs your attention. I would have questioned if the bag was practical in some merchandising applications, however they also provide the retailer with an off-shelf option. The floor merchandiser is an opportunity to extend the linear footage of the shelf or even get grape tomatoes out of produce. If consumers really do see them as a snacking option the retailer could generate incremental sales close to the cash with this floor display.

Potato packaging continues to evolve as producers improve the story about the different varieties and uses. It was interesting to see the Earth Fresh bags with people on them. We do not see a lot of people on packaging in the produce department and they are depicting consumers enjoying the products. There is no doubt these bags will stand out in the sea of potato bags on the shelf.

Consumers are looking for more information about their food and they will tell you they want to get closer to the people who supply the food for their family. They will tell you this but it doesn't always mean they will follow through. We do see more community supported agriculture and farm markets but the vast majority of produce is still sold through the mainstream retailers. Evergreen Herbs in Surrey, B.C. is giving the retailer the option to do both. Their organic farmer's box is a collection of organic products that will change each week depending on availability. This makes it more flexible and easier to execute than a set list of items with exacting specs. The consumer feels they are closer to the source of their food, the grower can have some flexibility in the offering and the retailer does not lose a customer to another channel.

Food solutions deliver innovation

Evergreen herbs had some very innovative offers in the herb category. We have all seen the small clamshells with one variety of herbs. They have developed herb combinations that allow the consumer to create their own marinade with fresh herbs. The products they created are marinades for specific cooking styles such as Italian or Indian and they are also sold for specific proteins including beef, pork, poultry and fish. These herb marinades are easy for the consumer and an incremental sale in the produce department. Some include spice packs and consumers just add olive oil.

Many consumers want to cook at home like a chef. Mann's have introduced a line of 'Culinary Cuts' which implies you are cooking like a chef. Cauliflower and Brussels sprouts are appearing on many restaurant menus and this prepared product removes a lot of the work. The vegetables can even be cooked right in the bag. These prepared vegetables deliver convenience and the dream of being a culinary expert all in one bag.

Use every opportunity to market your brand

Stemilt follows this philosophy with their cell phone charging station on the convention floor. I watched many people take advantage of this stand-alone unit that reinforced the message of their L'il Snappers kid size fruit. Remember to look for every opportunity to reinforce your brand, even away from your packaging and the shelf.

Peter Chapman is a retail consultant, professional speaker and the author of A la cart-a supplier's guide to retailers' priorities. pchapman@gpsbusiness.ca.

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CPMA CONVENTION + TRADE SHOW CALGARY 2016

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CANADIAN PRODUCE MARKETING ASSOCIATION

Latest packaging trends displayed at CPMA



Evergreen Herbs introduces herb combinations geared to specific cuisines (e.g. Italian, Indian) and for specific proteins including beef, pork, poultry and fish.



Mann's introduces pre-chopped Caulilettes and Broccoli Clovers.



Peak of the Market, based in Winnipeg, Manitoba, won the coveted Most Creative Booth Award.

Industry leaders state positions on four issues

KAREN DAVIDSON

A panel of industry leaders was convened and emceed by CPMA's Jane Proctor, vice-president, policy and issues management, on the trade show floor.

Food waste

At Loblaw, Frank Pagliaro says the No Name Naturally Imperfect program has enjoyed an overwhelming response. "We're working with growers to expand the program with a multitude of items," he says. Stone fruit isn't eligible for this type of program due to short shelf life, however Mike Ecker, Vineland Growers' Cooperative says a pilot program was tested with pears last year. "Pears scar easily and are susceptible to many things," says Ecker. "A staple like a pear has some opportunity."

produce will get less over time."

Organic produce

"The organic market is growing," says Furi. "One of our growers has increased acreage four times and can't supply the demand. On the topic of GMOs, we believe in the science-based approach of the Canadian Food Inspection Agency. The issue right now is that there's not enough education and people aren't aware of what GMO really means. As a result, we will struggle to get to the next level." "We can't grow enough organic," says Ecker. "There's controversy if it's better for you but I know that from the grower's standpoint, the flavour is definitely better." "We want to grow the organics category but are restricted by volume and product," says Pagliaro. "Organic continues to

produce department. You lose the sightlines with too much plastic. We're careful and pragmatic."

Climate change

Adverse weather patterns at the beginning of 2016 caused

stress in the supply chain. "The ongoing change in weather patterns and getting consistent stability through supply network is a stress," says Pagliaro. "We are diversifying and having alternate regions. We are planning with local

growers across Canada, doing post-mortems from the previous year to find out what works, and what doesn't." "Weather and economic issues are the hot button for us," says Furi.



In western Canada, there's a different approach. "Growers have found a secondary market for their seconds with juice processors," says Mike Furi, The Grocery People. "Our concern is that supply and availability are not there. We don't want our customers to be discouraged with inconsistent supply. We don't want growers to grow substandard product. That percentage of three to seven per cent of imperfect

be a trend with double digit growth year over year for a decade. We don't see this category losing momentum."

Packaging

Development of new packaging and technology has advanced quickly in the last five years. "However, as a merchant, there's a balance," says Pagliaro. "You can't lose that market feel when going into a

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NEW EQUIPMENT

New onion seeder looks to the future



Draper Farms' new Monosem Mini Seed precision vacuum seeder is planting red onions for the fresh market.



This blower diffuser redirects the seeder's exhaust and any seed coating dust towards the ground.

KAREN DAVIDSON

The purchase of an onion seeder happens maybe once in 20 years. So when Ross Draper, from Draper Farms in Keswick, Ontario considered his 2016 investment, it was with an eye to the future.

With 200 acres of onions to plant, he has imported a state-of-the-art Monosem Onion Seeder from the U.S. It has all the usual features such as high-accuracy vacuum seed meters, insecticide meters, operator

platform, as well as the advanced Monosem exclusive features such as a seed monitoring system with singulation spacing and population counter, and a unique double-disk opening system. What makes it unique is a diffuser for neonicotinoid insecticides.

"This is a proactive move to be bee-friendly," says Paul Smith, Northern Equipment Solutions Sales. The regulatory environment is changing so quickly that growers can't help but take lessons from the Ontario grain farm sector. Luciano Conceicao, general manager at Draper Farms, says, "When purchasing a new onion

seeder, Monosem was our only choice because of its innovations and industry leading accuracy. When it was mentioned about a neonic-friendly option for the vacuum, we thought it best to be as proactive as possible."

Not all onion seed is treated with an insecticide coating to boost germination. Nor do all insecticides contain an active ingredient belonging to the neonicotinoid family. But anticipating sudden regulatory changes is prudent when making long-term equipment purchases.



Growing Forward 2
A federal-provincial-territorial initiative

Get Started

Thinking about farm improvements for 2016?

Producers in Ontario can apply for *Growing Forward 2 (GF2)* funding assistance by following **3 easy steps**:

Consult the Producer Program Guide available at ontariosoilcrop.org to learn about opportunities and requirements under the program.

Questions? Attend a workshop* and speak to a Regional Program Lead or Workshop Leader. Register at ontariosoilcrop.org.

*Some OSCIA workshops may be a requirement for *Growing Forward 2* funding assistance applications.

You have from June 17 to July 7, 2016 to submit an application for the next intake for funding assistance.

- 1

ENROL YOUR FARM BUSINESS
- 2

ATTEND A WORKSHOP
- 3

APPLY FOR FUNDING ASSISTANCE





INFRASTRUCTURE

Ontario Food Terminal modernizes facilities

KAREN DAVIDSON

A \$6.5 million makeover is underway at the Ontario Food Terminal (OFT). The 'stock exchange' for produce has been a hub of commerce near downtown Toronto for more than 60 years, but is in need of more than cosmetic changes. From a new guardhouse to new covered walkways, the improvements help marshal traffic in a safer way for the hundreds of daily buyers.

As warmer weather arrives in May, farmers can expect the guardhouse to be fully commissioned with new access cards assigned.

"We are really excited about the new opportunities this expansion could offer Ontario producers," says Alison Robertson, OFT board chair. "There is such a demand for local produce, anything we can do to support local producers is the right thing to do."

Still to come is a farmers' market building. Site plans have been submitted to the City of Toronto to make sure that all the building codes are accommodated for zoning, parking, safety and health. The permitting process and construction are expected to take another two years, says Bruce Nicholas, general manager.

The plans call for 50,000 square feet of climate-controlled space with 45 open-concept stalls. The building will have 24 glazed doors with dock seals. A fully integrated system of walkways will connect the north and south warehouses, considered essential to maintain the cold chain. In anticipation of the new build, the Ontario Food Terminal Board is inviting farmers to submit letters of interest to rent stalls. Rates, terms and conditions will be determined at a later date.

"If you want to be part of this new exciting change at the OFT, please submit a letter of interest to the Board and check out the video posted on the Boards' website," says Nicholas.

A video of the changes can be seen at www.oftb.com or the Ontario Food Terminal Board's YouTube channel: OFTB New Farmers' Market Building 2016.

The Ontario Food Terminal is Canada's largest wholesale fruit and produce terminal. It ranks amongst the top four terminal markets in Canada and the United States by volume of produce distributed with more than a two billion pounds of produce distributed annually. More than 5,000 buyers are registered to buy wholesale produce.



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MUCK VEGETABLE GROWERS' CONFERENCE AND TRADE SHOW

Celery leaf curl is cropping up

KAREN DAVIDSON

Bradford, ON – Crop scouts are finding that a new disease called celery leaf curl, first spotted in 2011, is appearing with more regularity in muck soils of the Holland Marsh. The fungus spreads through rain-splashed spores affecting the leaves and stems of celery with unsightly dark spots. At risk is more than 600 acres of Ontario-grown celery and potentially 1,450 acres in Quebec.

“This disease impacts yield and marketability,” says Michael Celetti, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) plant pathologist. “The leaves cup down and look deformed, depending on the time of infection. Leaf curl in celery has been observed in Quebec but it does not appear to be serious yet.”

According to an OMAFRA newsletter, brown lesions may develop on the leaf margins of infected plants and occasionally yellow translucent spots appear scattered on the upper leaf surface. Symptomatic leaves eventu-

ally become brittle and crack along their length which may extend into the stalk. The stalks of infected plants eventually become twisted with reddish to light brown lesions that can develop on either the outside or inside of the stalks or inside the crown at the base of the infected plants (see 2 photos).

Spores of the fungus are produced in the lesions that develop along the stalk and in the crowns and are easily splashed about by overhead irrigation or rainy and windy weather.

A 2013 grower survey organized through the Muck Crops Research Station showed that celery leaf curl was prevalent in 75 per cent of celery fields sampled in Ontario, in both muck and mineral soils. The severity of celery leaf curl in each field was considered very low in 2013.

Research funding was marshaled for 2015 for variety trials. Early results show that some cultivars are more susceptible than others. To date, there are currently no fungicides registered for control of this disease, however, some fungicides registered for other diseases may impact leaf



Celery leaf curl

curl. A few fungicides are currently still under review and should be registered for leaf curl management in the near future.

With few tools to manage the disease, Celetti says that graduate students are now studying the biology of the disease to see if any cultural practices may help.

Laboratory testing revealed a strange coincidence in 2012 when

apple growers complained about an increase of bitter rot and economic damage in valuable varieties. When laboratory workers dissected the genetic components, they discovered the same *Colletotrichum acutatum* spores that cause celery leaf curl.

As Celetti explains, “We know that in apples, bitter rot is not a problem in temperate climates,

but it does cause economic damage in places such as South Carolina and California. With warmer summers, we may be seeing an increase in this disease. There are no definitive answers, but we’re definitely watching.”

While climate change may bring the benefits of a longer growing season, its drawback is new disease.

CANADIAN HORTICULTURAL COUNCIL

Amendment to the proposed re-evaluation decision on chlorothalonil by PMRA



Health Canada’s Pest Management Regulatory Agency (PMRA) has amended its Proposed Re-evaluation Decision for chlorothalonil PRVD2011-14 based on revised occupational and residential risk assessments with more information relevant to the potential effects of

chlorothalonil on human health, particularly via dermal exposure. Based on the revised risk assessments, the PMRA has determined that under the revised conditions of use, some agricultural uses of chlorothalonil do not present unacceptable risks to human health. These horticultural uses include aspara-

gus, carrot, celery (seedbeds only), cucurbits, ginseng, mushroom, parsnip, potato, strawberry and tomato. Based on the results of the risk assessments for postapplication workers and the general public, PMRA is proposing to cancel the following uses: blueberry (highbush), blueberry (lowbush), celery (field), cherry (sweet and sour), Cole crops, corn (sweet), cranberry, nectarine, onion (dry and green) and peach.

The PMRA will accept comments and proposals until June 10, 2016.

CHC will be working with members over the upcoming weeks to prepare a response to PMRA on this proposed decision. The work will be accomplished on your behalf by the CHC-Crop Protection Advisory Committee (CPAC). For more information contact André Bourbonnière at abourbonniere@hortcouncil.ca



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CANADIAN HORTICULTURAL COUNCIL

CHC-CPAC releases consultation work plan for PMRA proposed re-evaluations

Health Canada's Pest Management Regulatory Agency (PMRA), under the authority of the Pest Control Products Act and Regulations, is proposing the re-evaluation of

several products in Canada. The CHC Crop Protection Advisory Committee has established a workplan for each of these consultations. For further information go to

www.hortcouncil.ca

| CHC Priority | Name | Published | PMRA Due Date | Technical Registrant |
|--------------|--|-------------------|--|--|
| 1 | PRVD2016-02 Methomyl | January 15, 2016 | March 15, 2016 Extended to April 14, 2016 | EI DuPont Canada Company |
| 2 | REV2016-06 Chlorothalonil Amendment to the Proposed Re-evaluation Decision | February 11, 2016 | April 11, 2016 Extended to June 10, 2016 | Syngenta Sipcam Agro Adama |
| 3 | PVRD2016-13 Captan | March 31, 2016 | 90 days expected = June 29, 2016 If the 90 extension granted new date will be September 27, 2016 | Arysta LifeSciences North America ADAMA Sharda |
| 4 | PMRA Regulatory Proposal PRO2016-02: Management of the Pesticide Re-evaluation Process | March 31, 2016 | May 31, 2016 | n/a |
| 5 | PRVD2016-05 Ferbam | February 29, 2016 | April 29, 2016 May 27, 2016 | Taminco US LLC – Engage Agro Loveland |
| 6 | PVRD2016-06 Ziram | February 29, 2016 | April 29, 2016 May 27, 2016 | Taminco US LLC – Engage Agro Loveland |
| 7 | PRVD2016-07 Thiram | February 29, 2016 | April 29, 2016 May 27, 2016 | Taminco US LLC – Engage Agro Loveland MacDermid Agricultural Solutions Canada Company |
| 8 | PRVD2016-09 Iprodione | March 17, 2016 | June 15, 2016 | FMC ADAMA Bayer CropScience |

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Electricity pricing and competitiveness



JOHN KELLY
EXECUTIVE VP, OFVGA

irrigation lines, the availability of electricity is paramount for commercial production. Electricity pricing must be competitive. For some in horticulture, the price of power can account for as much as a third of the cost of production and soaring electrical prices are a major contributor to this cost. There are groups in Ontario -- including the Ontario Chamber of Commerce, Ontario Federation of Agriculture -- which have clearly stated that the costs of electricity in Ontario are making businesses unsustainable. What is unclear to most growers is what the actual costs of electricity itself are and a key challenge is to determine the "all-in" cost for electricity and comparisons with other jurisdictions. For example, invoices in Ontario contain the following information: electricity, the Independent Electricity System Operator (IESO) Global Adjustment, delivery, regulatory, debt, HST and a clean energy credit. Each of these has an associated cost, with the exception of the small clean energy credit.

For most of these, the definition should be pretty easy. However, the price of electricity itself is dynamic, changing hourly because of consumer behaviour, weather, time of day, day of the week and economic conditions.

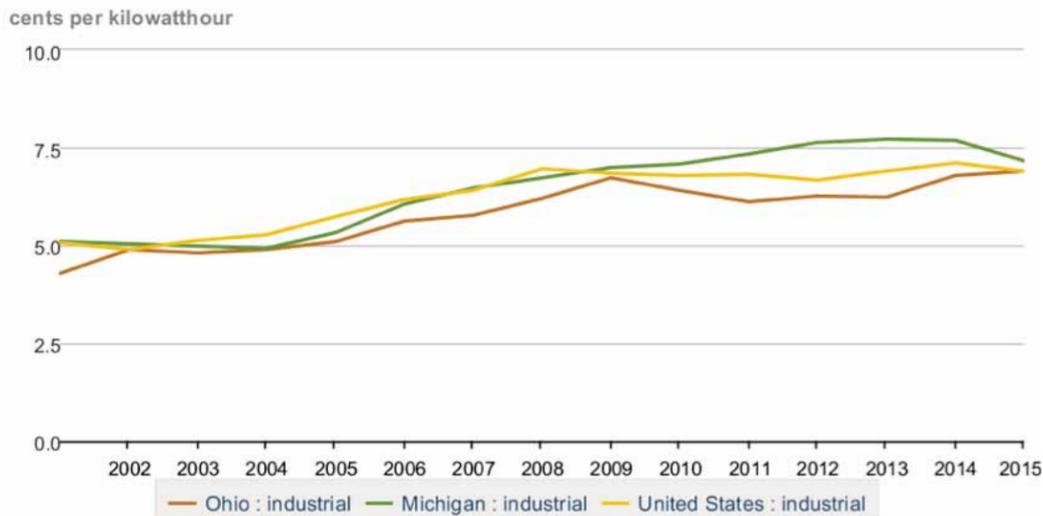
The IESO Global Adjustment is the charge designed to cover "the cost for providing generating capacity and conservation programs for Ontario." The Global Adjustment is split into three main components: for the Ontario Electricity Financial Corporation, for the Ontario Power Generation (OPG) nuclear and baseload generating stations, and contracts with the IESO for gas-fired generation, renewable facilities, energy from waste and biomass, nuclear

Ontario fruit and vegetable growers produce high-quality produce that is enjoyed by Ontarians and other customers alike. They consume these products because they know they are high quality, safe, grown in an environment that is conducive to sustainable production and supportive of the local economy. Growers are very delighted to give consumers these products, and when given the chance, will proudly tout how they contribute to society as a whole and communities at large.

Ontario growers, however, are under immense pressure and competition, domestically and internationally. Because of the northern climate, production is limited to only part of the year and this is not the case with many competitors. By the very nature of the Ontario environment, there are costs associated with producing fruits and vegetables that are considerably lower in other jurisdictions.

Electrical power is an essential component of horticultural production in Ontario. Whether it is related to the lighting requirements within a greenhouse, the cooling of apples after harvest, the processing of tender fruit for delivery to market, housing of labour to support the business or pumping of water for

Average retail price of electricity, annual



Data source: U.S. Energy Information Administration

refurbishments, and conservation programs. In 2015, this cost to Ontarians was \$1.311 billion (source www.windconcernson-tario.ca). The problem is that the electricity being generated is not needed in some cases and is being exported at a fraction of the cost of production for that electricity. For small customers, the Global Adjustment will not be a separate line item and will be part of the tiered electricity pricing.

The costs of delivery for electricity can vary significantly across the province. In a small comparison of invoices from locations across southern Ontario, delivery charges range anywhere from three to six cents per kilowatt hour (kwh). This is a large swing across the province.

The regulatory charge on hydro bills is associated with the cost of services provided by the IESO to operate the wholesale electricity market and maintain the reliability of the high voltage power grid. It also covers the Ontario Power Authority (OPA) administration (costs related to planning for generation, demand management, con-

servation and transmission), rural and remote electricity rate protection, renewable connections and the Ontario Electricity Support Program for low eligible low income customers.

The Ontario government has removed the debt payment from residential users in January 2016, but it is still being paid by other users, including many horticultural businesses and will remain so until April 1, 2018. This typically amounts to 0.7 cents/kwh.

The HST is paid on all of these extra charges, including debt repayment. With all of these extra fees, the cost of electricity alone may only be 50 per cent of the total bill. These total payments range anywhere from CAN 18 to 21 cents/kwh.

In the United States, The Federal Energy Regulatory Commission is in charge of regulating interstate electricity sales and wholesale electric rates. Rates for electricity distribution are regulated by state-level public utilities commissions or public services commissions. There are four classes of customers (residential, commercial, industrial, and

transportation). Agricultural and horticultural electricity rates are in the industrial category, with the industrial level being significantly lower than the other two. The key comparison, however, is the "all-in" price for electricity in comparable areas. Across the United States, the average industrial price for electricity was US 7.01 cents/kwh. For example, this pricing in 2015 for Ohio and Michigan is US 6.88 and 7.16 cents / kwh, respectively (<http://www.eia.gov/electricity/data>). This pricing difference compared to Ontario costs, along with other incentives, is contributing to "leakage" of horticultural businesses from Ontario to these competing jurisdictions.

Horticulture is not alone in its very serious concerns about the pricing of electricity and its impact on our competitiveness. For many in the horticulture sector however, electricity is often in the top three major costs of production. If these costs make producers uncompetitive and unsustainable, then food security and rural stability are put at high risk too.

U.S. expertise useful in fight against stink bug



OWEN ROBERTS
U OF GUELPH

Among the things we should be watching in the U.S. right now is the agriculture sector's response to a nasty insect called the Brown Marmorated Stink Bug (BMSB). It's taken hold there, and is poised to be a threat for horticultural producers and other farmers in our country, too.

BMSB, identifiable by its marbled or marmorated brown appearance, shield shape and two white bands on each antenna, will feed on most anything, including ornamentals, fruit and cash crops. A BMSB integrated pest management working group, led by the United States Department of Agriculture and

involving entomology experts from major U.S. universities, is trying to help producers defend crops against this invader.

The group has created a superb website with management recommendations for producers. Researchers in Ontario are participating in this working group, as part of the coordinated

BMSB research and outreach activity from the University of Guelph, the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and Agriculture and Agri-Food Canada.

CONTINUED ON PAGE 13

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PERSPECTIVE

U.S. expertise useful in fight against stink bug



Photos by Hannah Fraser, OMAFRA

CONTINUED FROM PAGE 12

“We are learning as much as we can from the ongoing research in the U.S. before BMSB becomes an economic pest in Ontario,” says Hannah Fraser, OMAFRA’s entomology horticulture program lead.

In the states, BMSB has become a direct pest of many fruits and vegetables, causing problems that render the affected crop unmarketable. BMSB nymphs and adults injure vegetables by inserting their piercing-sucking feeding stylets into fruit, pods, buds, leaves, and stems. The time of the season when feeding occurs influences the type and appearance of crop injury, but generally, crops are most attractive to these insects during fruit set and crop maturation.

Research by the American working group shows BMSB activity is found in a wide variety of crops. For example, it says, sweet corn and edible soybeans can incur extremely high densities of bugs during the kernel or seed development periods. Okra and bell pepper are preferred host plants for the majority of the growing season and for reproduction. Green beans,

tomatoes and eggplant also appear to support reproductive development of BMSB. Sweet corn, green beans, bell peppers and tomatoes are very susceptible to feeding injury. As well, asparagus and Swiss chard may be regularly attacked by BMSB.

Fraser says a big challenge here is that BMSB is a new pest to Ontario. Based on survey work and confirmed homeowner reports, OMAFRA believes the insect is already established in many parts of southern Ontario, along a corridor from Windsor to Ottawa, where it moved to from the northeast U.S. Five established (breeding) populations were confirmed in the corridor last year, but more are suspected.

The biology of this insect further makes management a challenge, says Fraser. BMSB is called a “landscape-level” pest with a high capacity for dispersal. That means it will move between hosts such as landscape plants and crops throughout the growing season. Population pressure is not uniform, and fluctuates during the growing season.

Action thresholds for BMSB are still under development for most horticultural crops. Many of the recommended management strategies are considered

provisional.

This spring and summer, Ontario producers and crop consultants are being asked to assist with a trapping program, to help monitor the BMSB’s appearance throughout the province. The trapping program is part of a bigger effort to track the BMSB’s advance, and control it.

“We don’t want growers to miss the early signs that BMSB is in their crops,” says Fraser. “We want them to start thinking about BMSB, and using traps may be a way to get early adopters on board with adding BMSB to regular scouting.”

Fraser says early detection is vital for control, and that scouting for the insect on host plants is the best way to find it. The trapping program, which she expects to involve about 40 producers and consultants, is meant to raise awareness and provide insect counts that can be used for determining thresholds for control. Traps should be set up next month.

Producers interested in discussing the trapping program can contact Fraser at hannah.fraser@ontario.ca. But everyone should be scouting, and keeping an eye out for this bug’s spread.

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Grapes and berries and vineyards – oh my!

BRUCE KELLY

This month's **Grower** theme is grapes, berries, vineyards and wineries, and nothing says summer like these four words. Don't get me wrong: I love carrots, onions and potatoes, but it will certainly be a treat to move outside into the warm summer sunshine and get my hands on some of the sweeter results of Ontario's agricultural production.

I'm not sure if it was a marketing ploy by an American company to wrap itself in the Canadian flag or an honest groundswell of support for the home province, but my household recently took the ketchup taste test challenge. There's now a bottle of French's ketchup in the fridge and I feel like I'm losing my identity. The world I grew up in was a simple place. French's made mustard, Heinz made ketchup, and Bick's made green relish. Shopping was just that easy. Hotdog and hamburger season began with a review of the condiments on hand. Dated and underappreciated condiments that had languished during the long cold winter (i.e. non-barbecue season) were chucked out, and we celebrated the

arrival of summer by restocking the trailer or cottage cooler with fresh bottles of the big three: ketchup, mustard and relish.

French's ketchup isn't the only new product in our fridge. Over the past few summers I have been tricked into expanding my relish routine to include zucchini relish. It's really quite good. Who would have thought that you could make me eat zucchini and like it?

As you may have gathered, I was not the most adventurous vegetable eater as a child, and learning where condiments come from has been somewhat disruptive to my previously simple view of life.

It gets better. Over the past year I have had the opportunity to work with many fantastic growers around the Holland Marsh. Samples of parsnips, red and white beets, and various sprouted seeds have found their way onto the dinner table. Roasted parsnips are now a regular part of our potato wedge recipe.

My life as a vegetable hater is collapsing all around me. Getting back to the topic at hand. For me, grapes, vineyards, and wineries are all aspects of an industry I enjoy year round ... packaged in a nice bottle. I do enjoy a summer trip to

Niagara to see grapes on the vine. There is something about walking between rows of grape vines that is very different from rows of field crops. I just want to reach out and touch them. Summer is about fresh in-season berries. Over the winter we tend to forget the succulent nature of our strawberries, raspberries, and blueberries. Whether you eat fresh berries off the bush, bake with them, or preserve them, nothing beats the taste and freshness of Ontario fruit.

Ontario berries are a tasty reminder of the passing of the seasons. Strawberry socials, teas, and other events mark the end of spring and the beginning of summer. Raspberries for me meant visits to my grandparents' farm where there were always a couple of long rows that needed picking and grandma's collection of pie plates and coloured string to keep the birds away from her canes.

Then it's blueberry season, yum! In the south, the products from Wilmot Orchards, Parks Blueberries or Barrie Hill Farms are famous for their quality. In the north, where signs for wild blueberries dot the landscape, I have a little patch of my own. After listening to a speaker from Algoma Highlands Wild Blueberry Farm give a talk about wild blueberry production last year, I cut my blueberries back last fall. With luck, I'll have a burst of new growth and a bountiful harvest from my little wild patch this year.

Ontario berries represent the best of what summer has to offer and I can't wait for the season to begin. Let's use some of our grape juice to toast the berry producers of this province.



Photos courtesy of Farm & Food Care.

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

COMING EVENTS 2016

- May 18 Canadian Association of Farm Advisors' Farm Succession Update Conference, Ajax, ON
- 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, 4-8 pm, 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 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, Lavender Farms, Simcoe, ON
- July 18 – 21 International Fruit Tree Association Regional Study Tour, Rochester to Geneva, NY
- 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

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RETAIL NAVIGATOR

Creating flyers is like building a puzzle



PETER CHAPMAN

We know that retailers have to drive sales to be successful. Weekly flyers are one vehicle they have to accomplish this. More and more items are being sold on temporary price reduction so you need to figure out how to be there without discounting your product too much. This month we will investigate how the retailers build the ads so you can increase your chances of being where you want to be in the ad. Retailers have four key objectives with ads

When the merchandising group gets together every week to create the ads, they have the following objectives:

1. Drive traffic into the store.
2. Deliver or exceed the sales target.
3. Deliver or exceed the margin \$ target.
4. Reinforce the positioning of the banner or store format.

You should think of the category managers as trying to build a puzzle each week. Overall they want to create a finished product that accomplishes these objectives, similar to the completed puzzle picture. Each item is a different puzzle piece and they need them all to get it done.

How they build the puzzle? Start with the edge pieces

One strategy to build a puzzle is to start with the edge pieces. They are easy to find and they define the picture for you. Retailers start with these questions: when will consumers have money to spend and what themes will capture interest. These questions are asked months in advance in mapping out the weeks. Consumer spending will vary considerably from week to week depending on pay cycles, government subsidies and holidays.

For example, in Ottawa where a significant proportion of the population work for the federal government, it is very important for retailers to understand when the bi-weekly pays will be going to government employees. In another region with high unemployment, consumer spending is dependent

on when unemployment insurance is received. Holidays also drive consumers' purchasing behaviours. The Thursday before Easter is one of the single busiest days of the year in food retail.

The potential sales and the themes will be laid out in the ad planning. Some weeks where there is more money available the ad might be larger or the investment higher. These are dictated by the retailer's own strategy and what the retailer believes the competition will do. They also change through the year as the market place evolves. If one retailer put a very low price on a big holiday item such as turkeys or ice cream, there will be a lot of conversation about what will happen next time.

Items will be selected to support the overall themes and deliver the sales and margin expectations. Usually these are on the front page and the large inside blocks. If we return to our puzzle analogy the edge is now done.

Find the unique or odd sections to build in the puzzle

The next task in building a puzzle could be to select the unique or odd sections. For building the ads these would be the items that were advertised and performed well the previous year in the same week. These products are relatively safe items to plan and they will be accepted by the group because they know what they will deliver.

Odd-shaped pieces go in next

Once you finish the unique and odd sections in the puzzle, you could look for the odd-shaped pieces. They stand out and you can find where they fit relatively easily. For our category managers, these might be new items, growing items or unique products that consumers are looking for. They are top of mind and they fit right in the ad to support the four objectives. Often they might deliver a higher margin to help balance an investment on other items.

Most ads are now completed without having to search for too many more items.

The supplier's role in completing the puzzle

Think of where your items fit in the puzzle. Are you an edge piece that belongs on the front page during a holiday week or are you part of a unique section to support a theme for local products? If you are one of the odd-shaped pieces you need to get on the radar so that when they are looking for one to fill a

spot they pick you.

Help the category manager with the facts to pick your item. What sales will you do in the ad, what margin will you deliver? If you were advertised before, how did the item perform and what could you both do differently to help improve the results? The most important thing is to be one of the pieces selected. You need to keep your item top of mind without being too obnoxious. Reinforce the benefits of your item within the parameters of what they (not you) are trying to do.

Create your own strategy to be part of the puzzle. If you have other ideas for getting on the radar or if you have any questions please give me a call at (902) 489-2900 or send me an email at pchapman@gpsbusiness.ca.

RETAIL NEWS

Major moves by Sobeys

Within the last month we have seen two major moves by Sobeys in the market. They

announced they would be taking a significant write down on the value of the Safeway purchase and they lowered 8,500 prices in Quebec.

The announcement in Western Canada is significant as the company integrates all of its Western Canada operations. Either they do not believe they will generate the anticipated volume out of the market or they will have to invest more to get the volume. Regardless it will be a tough battle. This is interesting for suppliers who have worked with them through the transition. There will be more challenges to achieve the desired results.

In Quebec, which is Sobeys' strongest region, the company is moving to get closer to the price leaders in the market. The positioning is to make good eating more affordable, which is great, but the reality is the company is lowering retail prices to get closer to where they need to be. IGA stores are very good stores but the price gap can only get so large before the consumer will decide to spend money in other stores.

Both decisions will impact suppliers as they work with Sobeys in these markets.

WHAT'S IN STORE?

Welcome to the fast lane

In Atlantic Canada, Loblaw's has been promoting a new program where they commit to having all checkouts open on Saturday and Sunday from 12-5.

As a supplier you need to understand they might be looking for assistance to pay for the investment and you can also bring this up in conversation with Loblaw Co Inc.

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.

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FOCUS: GRAPES, BERRIES, VINEYARDS AND WINERIES

Award honours best vineyard practices

KAREN DAVIDSON

Sometimes it takes an award to shine a light on years of quiet diligence. That's the case with father-and-son Howard and Wes Lowrey, who recently received Cuvée Vineyard of Excellence Award sponsored by BASF Canada Inc. The award is given annually for viticulture excellence in Ontario.

Organized by Brock University's Cool Climate Oenology and Viticulture Institute (CCOVI), the Cuvée event is one of the largest celebrations of Ontario's VQA wine, showcasing each winemaker's favourite selection to a crowd of 800 guests in Niagara Falls.

The Cuvée Vineyard of Excellence award winner is chosen by an expert panel that makes field visits throughout the growing season to monitor quality. This year's judges included Kevin Ker, Helen Fisher, Andy Reynolds and Jim Willwerth.

The Lowrey's were recognized for their three-acre Cabernet Sauvignon block located within their family-run, 5th generation vineyard located on the St. David's bench in the Niagara peninsula.

"With Cabernet Sauvignon, it's pretty hard to ripen in our climate," says Wes Lowrey. "At St. David's, we have a few more degree growing days."

This particular block was hand-planted in the late 1990s with a known clone and rootstock. The soil varies from sandy to sandy loam to heavy clay – a fact that's immediately evident when disking. Some vines are vigorous while others are held back by the heavy clay.

"You have to get to know each row and each vine," says Lowrey, who carries a pocket notebook

and scribbles notes frequently. "After 20 years, I treat them as individuals."

After soil samples are analyzed, the Lowrey's top up with N-P-K supplement when needed.

Hand thinning and leaf removal are part of the management routine. Until recently, defoliation was considered a practice that should be gentle, not disturbing the plant.

However, the Lowrey's have experimented with mechanical defoliation in Cabernet Franc and Riesling varieties. They were pleasantly surprised by the results.

"For premium wines, we still like to defoliate by hand," says Lowrey.

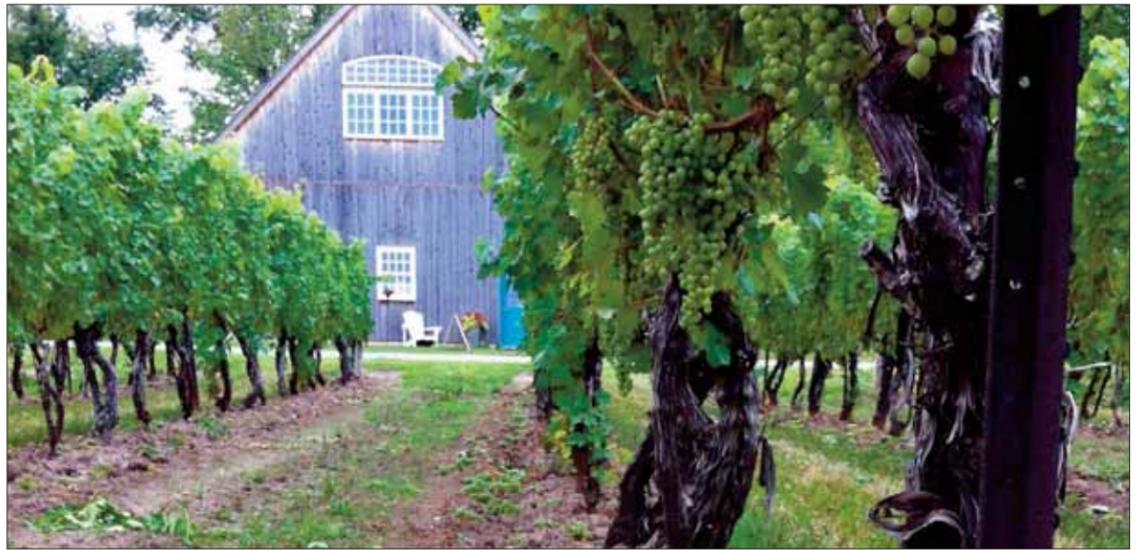
The intensive vineyard management extends to scouting for disease, particularly downy and powdery mildew. Fungicide use is timed with the weather.

The judges visit mid-season, after bloom, then again prior to harvest. At this point, they are looking for vine balance – the ratio of canopy to the crop and fruit maturity. The grapes are laboratory tested for sugar, titratable acidity, pH and phenolics. The judges then use both vineyard scores and fruit quality assessments to make their final decision.

"As the leader in grape crop protection, it is a great honour to have the opportunity to recognize excellence in viticulture, and the Lowreys are deserving recipients," says Scott Hodgins, horticulture brand manager with BASF.

For a sense of their farming philosophy, go to www.fiverows.com. Lowrey writes:

"Five Rows Craft Wine and the Lowrey vineyard are family-run operations that keep us in the boots most days. We welcome you to visit but apologize if you



find us on the tractor or under vine."

Photo top right: This photo of Cabernet Sauvignon Clone 169 was taken after Wes Lowrey thinned some clusters before veraison.

Bottom right: (L-R), Grape Growers of Ontario chair, Matthias Oppenlaender, Cuvée Vineyard of Excellence winners Wes Lowrey and Howard Lowrey, Julia Harnal, BASF Canada Inc.





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FOCUS: GRAPES, BERRIES, VINEYARDS AND WINERIES

Vineyard mapping could help finetune management practices

KAREN DAVIDSON

Vineyard mapping is in its early days, but already Brock University researcher Andy Reynolds sees promise for optimizing inputs to produce wines at different price points.

The allure of Niagara's peninsula region is its glacial soils from 10,000 years ago. However, their variability is notorious in terms of texture, depth and water-holding capacity. These variables can impact vine vigour and yield. Creative wineries use these subtle differences in vineyard blocks, some less than one hectare in size, to produce high-value wines.

Thirty Bench Winery, for example, produces four Riesling wines based upon individual blocks. Coyote Run produces several Pinot Noir wines from adjacent vineyard blocks.

While remote sensing has provided valuable data for prescriptive measures -- a little

more nitrogen in this row and less over there for example -- newer technologies are at hand. Trimble's GreenSeeker crop sensing program can be used on a tractor or ATV to go down the vineyard rows to collect spectral reflectance data from the canopy. The spectral reflectance indicates that darker leaves are likely rich in nitrogen whereas chlorotic leaves may be deficient in nitrogen, iron and manganese.

While some of this research has been ongoing since 1998, Reynolds and his research crew from the Cool Climate Oenology and Viticulture Institute (CCOVI) started in earnest in 2014 with GreenSeeker in six Ontario vineyards and expanded the scope to 18 vineyards last year to include remote-sensing

drones. The sampling grids in each vineyard were evaluated for yield, berry size and composition, vine water status and soil moisture.

"The data we collected (by GreenSeeker and drones) does appear to correspond to yield components such as clusters per vine, berry weight and vine size," says Reynolds.

The goal is to map the vineyards so that management practices can be tweaked in real-time. For example, with a serious grapevine leafroll virus outbreak, specific vines can be identified and removed.

In 2014, several vineyard blocks were suspected of grapevine leafroll virus. Vineyard mapping confirmed the hot zones of the disease. The grower was



Photo courtesy of Ralph Brown

able to drop some crop to compensate for the disease.

To date, growers are showing polite interest says Reynolds. "Growers need to know how this technology will help."

In agronomic crops, Reynolds points out that variable-rate sprayers, fertilizer and lime spreaders are in common use to

minimize variability. However, vineyards are perennial systems. Vine size and yield variability are inherent in each vineyard, challenging growers' management skills. In the not too distant future, these vagaries may be more easily managed through vineyard mapping.

Bayer launches fungicide for wine grapes

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

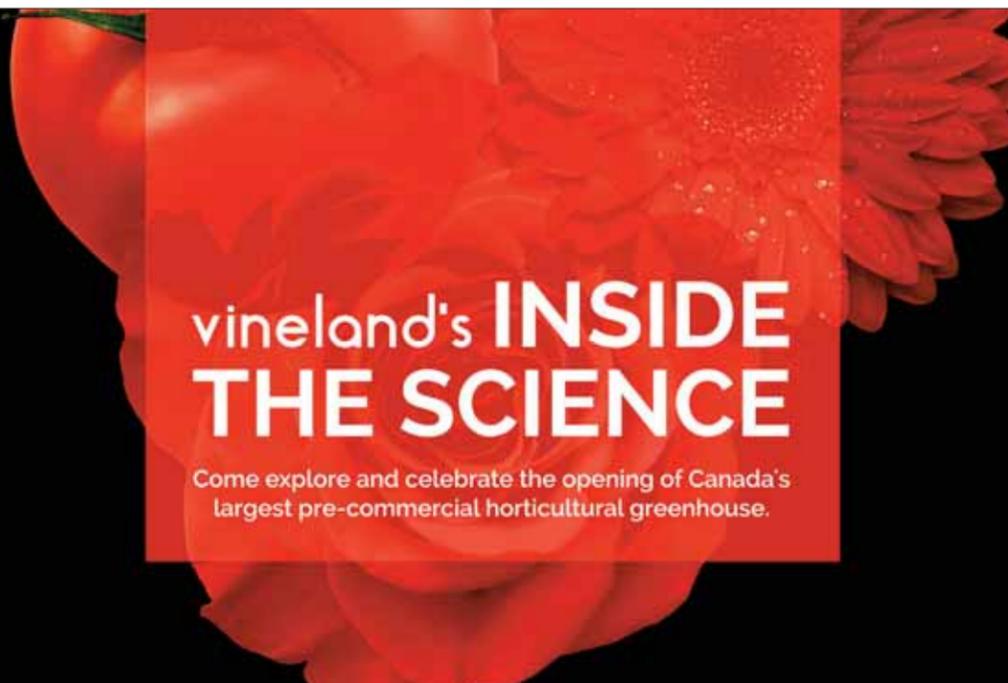
"At Bayer, we are dedicated to pursuing new tools that address specific needs for growers," said Jon Weinmaster, portfolio manager, horticulture, at Bayer CropScience Inc. "As the only Group 5 fungicide available for wine grape growers in Canada, Priwen not only offers growers a new and unique foliar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



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FOCUS: GRAPES, BERRIES, VINEYARDS AND WINERIES

Cross-country winery notes



Liquidity Wines wins Chardonnay du Monde

Liquidity Wines, nestled in the heart of Okanagan Falls, has been awarded silver medal for world-class 2013 vintage Chardonnay at the Chardonnay du Monde competition in France. Now in its 23 year, the competition received 782 submissions from 39 countries which were judged by tasting panel of 300 international experts.

Recognizing the world's best Chardonnays, the awards provide a benchmark of quality in an increasingly competitive market. Of the 259 medals awarded in this competition 132 went to French Chardonnays and 14 of those were given to Canadian wines.

Winemaker Alison Moyes and the Liquidity team pride themselves on making handcrafted wines that express the individuality of the vineyard, variation of the season and varietal.



Starbucks announces a marriage with local wines

Coffee in the morning, wine and craft beer in the evening. Starbucks Canada hopes this recipe will bring repeat traffic and result in a bigger share of beverage spending. Three locations opened with this concept in high-end Toronto neighborhoods in early April.

Two Niagara wines are on the listing. A six-ounce serving of Vintage Ink Chardonnay is priced at \$11 and Fielding Estate Riesling is priced at \$10. Small tapas plates of food are also on offer.

Will it work across Starbucks's 1,300 locations coast to coast? Other wine-producing regions should watch this pilot for future opportunities.



Sustainable vineyard practices prevail

When the *Penticton Herald* profiled Ian Mavety this past winter, the author noted the characteristics of his family's unique vineyard at Okanagan Falls, British Columbia. Besides a postcard view, Blue Mountain winery and vineyard are situated in a very dry climate that discourages pests and disease.

According to the website, several soil fertility concepts have been developed including a diversity of cover crops such as grasses, legumes and flowering species. On-farm-composting uses cow manure, wheat straw and winery marc. Organic fertilizers improve nitrogen availability.

Weed management is achieved through mechanical operations under the vine, both hilling up and ploughing back under the vine.

For a video tour of the 2015 harvest, go to <http://ow.ly/4mVkJt>

Nova Scotia's grape industry aims to double acreage by 2020

KAREN DAVIDSON

With 632 acres under vine, Nova Scotia's grape growers are a hardy bunch. Mostly clustered in the Annapolis Valley with the

moderating climate of the Bay of Fundy, these growers are heartened with the recent news of \$1 million provincial government funding for expansion.

"It's doable to double our acreage by 2020," says Stewart

Creaser, Avondale Sky Winery, who aims to expand from 22 to 30 or 35 acres in the next few years. While it costs between \$15,000 and \$30,000 per acre to get into production, grape-growing sites are available at

reasonable cost. Dating back to 1986, his vineyard is one of the oldest planted in the province to such white varieties as L'Acadie, Guisenheim and Petit Milo. Reds include Marchel Foch, Leon Millot and Lucie Kulmann.

The program will pay each grower up to \$6,550 per acre to cover land clearing, tile drainage, plant material, stakes and contracted labour. Growers with a minimum of five acres planted can apply. And new entrants are eligible for funding, provided they submit a plan by 2018 and have a contract with an existing winery.

"We have a lot of new entrants from all walks of life who haven't necessarily grown anything in their life," says Chris Duyvelshoff, grape specialist, Perennia. "That means we're teaching about basic soil nutrition, disease and pest management."

The Nova Scotia Vineyards Expansion and Development Program provides partial funding support, providing a specific list of hybrids and vinifera varieties suitable for the climate. While the varietal choices are important, Duyvelshoff says it's also key to grow varieties for styles of wine that will sell in the province. The Winery Association of Nova Scotia has developed a Tidal Bay appellation with specific guidelines on quality characteristics to meet the

standard.

About 12 per cent of Nova Scotia's wine purchases are attributed to locally-produced wines. Compared to global or even Canadian standards, that's a low percentage with lots of room to grow consumer loyalty.

"Credibility is the biggest part of our challenge," says Creaser. "There's a preconceived notion that we can't produce good wines here in a marginal climate, but we're starting to get the recognition. We can produce some world-class sparkling wines and crisp, aromatic whites that can't be grown elsewhere. I predict a future for rosé wines."

He also says that the province has microclimates in the Digby, Brador Lakes and South Shore areas that are showing promise.

Altogether, the industry is rallying for both domestic and international growth. Earlier this winter, a conference was held titled "Liquid Courage: Building Confidence in your Beverage Business." Successful innovators such as Ashley McConnell from the Benjamin Bridge winery and Matt Rogers, Bishop's Cellar shared their perspectives.

For now, Stewart Creaser is sticking to the business plan for his boutique winery near Newport. As one of 20 wineries in the province, he's looking to carve out a share of farmgate sales of more than \$15 million.

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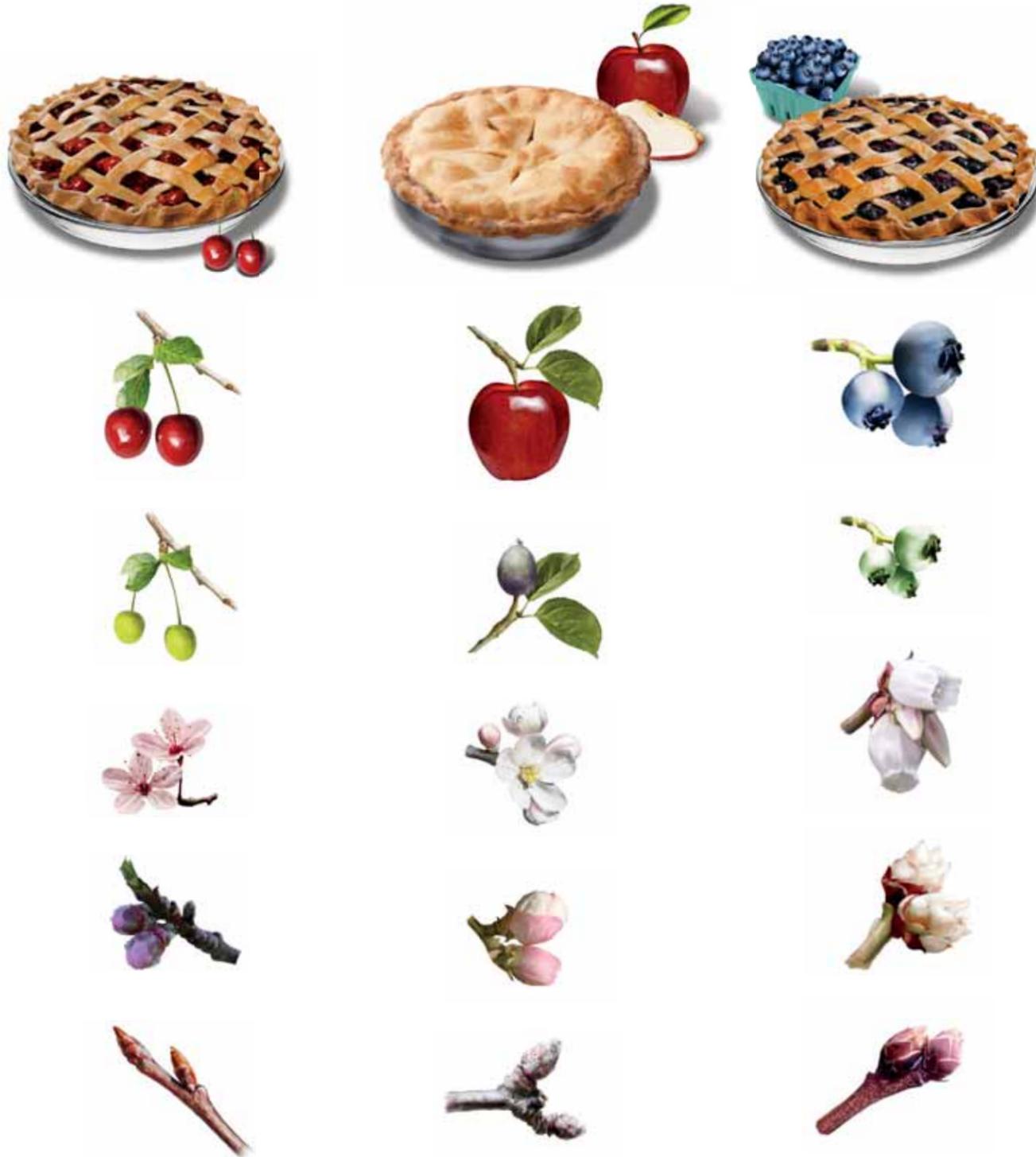
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Managing spotted wing drosophila in B.C. berry crops



Carolyn Teasdale inspects raspberry canes in mid-April.

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We have just experienced a second consecutive mild winter, with few days below freezing, and flies continue to be caught in traps around blueberry and raspberry fields.

CAROLYN TEASDALE

British Columbia berry growers face very high Spotted Wing Drosophila (SWD) pressure relative to other growing regions in Canada. This pest thrives in the Fraser Valley due to mild winters, moderate summers and many alternative wild host plants, including salmonberry, Indian plum, elderberry, wild cherry, Himalayan blackberry and snowberry. Winter trapping in the Fraser Valley over the past six winters by the BC Ministry of Agriculture and E.S. Cropconsult Ltd. has shown that SWD trap catches often drop off after a freezing spell in January or February. However, we have just experienced a second consecutive mild winter, with few days below freezing, and flies continue to be caught in traps around blueberry and raspberry fields. With early spring weather, the degree day model developed by Oregon State University predicts that overwintering SWD will start to lay their eggs in the Fraser Valley in mid-May. Populations typically increase exponentially from late spring through the summer as moderate temperatures in coastal B.C. favour reproduction.

SWD is so pervasive in B.C. that raspberry, blueberry and blackberry growers can assume that their fields are at risk and

need protection as soon as the fruit starts to colour. Last year, raspberry and blueberry harvests started in mid-June. Berry growers are encouraged to use both cultural and chemical controls to manage this pest, including:

- Wet traps to monitor adult flies and inform management decisions.
- Float out tests (salt or sugar solution) to detect larvae in ripe fruit.
- Short harvest intervals. Timely harvest is critical, as late hanging fruit is highly prone to infestation.
- Regular pesticide sprays when fruit is colouring.
- Pesticide rotation to delay the development of resistance. SWD resistance to insecticides is a major concern. Multiple generations of SWD per year in B.C. increase this risk.
- Cold storage for fruit immediately after harvest to maintain fruit quality.
- Removal and management of cull fruit. Avoid situating compost piles or cull piles near berry fields.
- Management of alternative host plants. Remove flowers and fruit from alternative host plants that are growing in hedgerows adjacent to berry fields.

Different markets have different SWD tolerance thresholds. For farm direct sales, light levels of SWD

infestation may be tolerable. However, for berries going to fresh-market domestic wholesale, export markets or processing, a high level of SWD management is required. Fruit that arrives at packers and processors is assessed for SWD infestation with a high level of scrutiny. For many buyers, there is zero tolerance for SWD and detection at any level results in rejection and/or downgrading to juice grade.

The BC Ministry of Agriculture continues to work collaboratively with SWD researchers at Agriculture and Agri-Food Canada's Summerland Research and Development Centre, throughout the Pacific Northwest, and across Canada to better understand the biology and behavior of SWD in hopes of developing new tools that could minimize the impact of this pest on our berry industry.

For more information on SWD, please check out the BC Ministry of Agriculture's Pest Alert:

<http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/animals-and-crops/plant-health/insects-and-plant-diseases/tree-fruits/spotted-wing-drosophila>

Carolyn Teasdale is industry specialist, berries for the BC Ministry of Agriculture.

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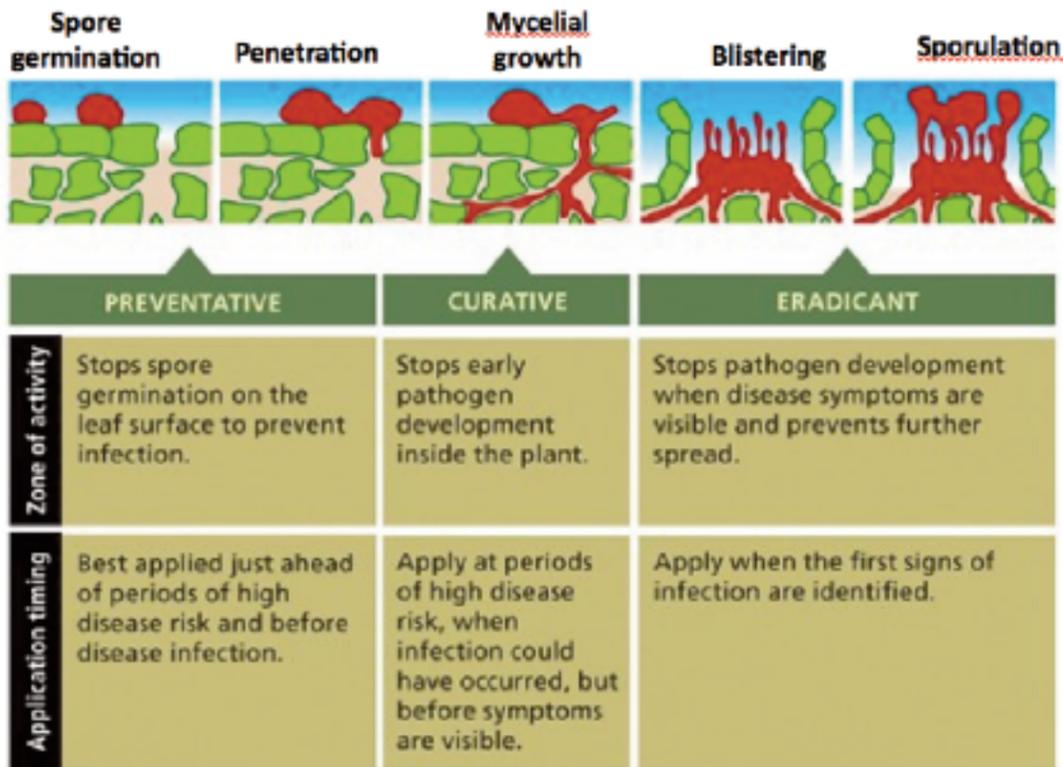
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FOCUS: GRAPES, BERRIES, VINEYARDS AND WINERIES

Biopesticides examined for role in field production



Most biological controls are preventative . . . they must be applied before symptoms appear. *Source: Syngenta STRI Tech Notes Issue 12 - Fundamentals of fungicide selection*

KAREN DAVIDSON

Biopesticides deserve respect. Once derided as snake oil, today's products have proven benefits in suppressing pest organisms. Whether they activate plant defenses, parasitize or inhibit pathogen growth or make the environment less favourable to disease, they can play an integral role in crop protection.

While the greenhouse sector first excelled at incorporating biopesticides in controlled environments, the learnings are now being extended to field production. Berries are prime candidates for biopesticides in an integrated pest management system according to Anissa Poleatewich, research scientist, plant pathology, Vineland Research and Innovation Centre (Vineland).

She outlined how to use these products in a Biocontrol Berry Day sponsored by the Ontario Berry Growers' Association on March 8.

"To date, biopesticides have not been used widely in berries, but with pathogen resistance to fungicides increasing, biocontrol can play a role," says Poleatewich. "Rotating between chemical and biocontrol products and in some cases, tank mixing biopesticides with conventional products is an option."

Biopesticides are derived from natural materials such as animals, plants, bacteria and certain minerals. These include microorganisms and naturally-occurring substances. They suppress diseases with unique modes of action, offering preventative but not curative control. Working best at low to moderate disease pressures,

they promote rooting and plant growth.

One example is a product called Rootshield distributed by BioWorks. It releases enzymes that dissolve the cell wall of many fungal pathogens, promoting a healthier root system. This enables plants to resist stress and to have better uptake of nutrients. The bonus is that there is zero re-entry interval.

Make no mistake. Biopesticides cannot offer 100 per cent protection nor are they effective at high disease pressures. They do not last indefinitely and don't work under environmental extremes.

What makes biopesticides unique is that their modes of action differ from conventional fungicides. And several modes of action are often at play. For example:



“There is a different mindset in using biopesticides. Rather than controlling disease at high costs which is often reactive in nature, growers must be more proactive in managing disease below an economically damaging threshold.”

~ ANISSA POLEATEWICH

- antagonistic metabolites are toxins or enzymes that kill or interfere with other microorganisms
- induced host resistance means plant defenses are turned on
- nutrient and niche competition means that the biocontrol agent outcompetes the pathogen for space or nutrients
- predation or parasitism means the microbial agent attacks or consumes the pathogen

By deploying several modes of action, growers are able to manage development of resistance to conventional crop protection products. Most biopesticides are exempt from Maximum Residue Limits (MRLs) and receive high marks for worker safety. There is minimal impact on beneficial organisms.

As Poleatewich points out, there is a different mindset in

using biopesticides. Rather than controlling disease at high costs which is often reactive in nature, she says that growers must be more proactive in managing disease below an economically damaging threshold.

"This is a continual process and growers must know the pathogen biology," she says. "A learning curve is needed and will likely involve extension specialists and product technical support. Apply according to the label and check for compatibility with other products."

Her best advice to berry growers is to limit pathogen spread with cultural practices. Limit conditions that are favourable to disease. Start early and start clean. Promote plant health. Use disease-resistant varieties.

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| Beehaven Apiaries Jerry Dietrich Alma 519 846-5839 | Lilleybee Apiaries Tim Greer St. Catharines 905 932-3457 | Northern Nectars Inc. Ann & Stefan Board Nipissing 705 729-2939 | Sun Parlor Honey Tom Congdon Cottam 519 839-4989 |
| Dutchman's Gold Inc. John Van Alten Carleton Place 905 689-6371 | Lingenview Farm Henry Van Uingen Belmont 519 269-3923 | Parker-Bee Apiaries Ltd. Mike Parker Beamsville 905 933-9200 | |

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Ministry of Agriculture,
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What's your plan for strawberry aphid control?

PAM FISHER

Strawberry aphid, *Chaetosiphon fragaefolii*, is the main vector of strawberry virus diseases in northeastern Canada. This aphid is a major pest which routinely requires control. If you don't have a plan for managing the strawberry aphid, your fields will continue to decline year after year from virus diseases.

At a recent winter meeting, John Lewis, a berry crop specialist with Perennia, outlined a virus management strategy that is working well in Nova Scotia.

- Reduce inoculum – remove older strawberry fields that are infested with viruses. These fields are probably low in vigour and patchy in appearance.
- Start new fields with clean plants from an accredited plant grower, and isolate new fields from sources of virus such as older fields, and wild strawberries.
- Monitor for vectors –aphids, whiteflies

- Control strawberry aphids during their flight period.

Most growers in Nova Scotia are using this strategy and as a result, Lewis reported a significant decline in virus levels over three years.

What's your plan to monitor and control strawberry aphids?

When to spray for aphids:

- Overwintering aphid eggs begin to hatch in early May. Check for eggs on the lower leaf surface of overwintering strawberry leaves. If eggs are easy to find, they should be controlled after all aphid eggs have hatched but before aphids begin to fly around to new places in the field.
- Aphids begin to fly early to mid- June and the flight period can last for six to eight weeks. Aphid monitoring and control is required throughout this period. Check for aphids weekly to know when your fields are most at risk. Collect 60 new, unfolded or partially unfolded leaves

from strawberry plants throughout the field, and determine the number of aphids per leaf. Economic thresholds have not been determined. However, because aphid populations can build quickly, try to keep populations below 15 aphids/60 leaves. This is especially important in new plantings!

Insecticide options for strawberry aphid control:

Cygon 480-Ag and Lagon 480E (dimethoate, Group 1B): These systemic insecticides are very toxic to bees and should not be used when white buds or bloom are present. These products are economical and effective, and good options for non-bearing plantings. Use of Cygon 480-Ag and Lagon 480E during the pre-bloom period will also control tarnished plant bug adults. These broad-spectrum insecticides will probably have some activity on leafhoppers, leafrollers and clipper weevils.

Thionex 50 W (endosulfan, group 2): This product has



Check new leaves for strawberry aphids.



Don't forget to control aphids in new strawberry plantings as well as fruiting fields.

provided poor to mediocre control of aphids in recent years. It has a seven-12 day re-entry period and will not be registered after 2016. When targeting aphids, use Thionex 50 W only when aphids and tarnished plant bug are present together. Re-assess control and be prepared to apply another aphicide if needed.

Admire 240 F and Alias 240 SC (imidacloprid, group 4A): These systemic insecticides are highly toxic to bees. They can be applied at different rates, as a high volume spray to the soil or (Admire only) as a foliar spray. The soil applications will provide good aphid and leafhopper control for approximately three weeks, but will limit the use of other group 4A insecticides for the rest of the season. For example, if you apply Admire or Alias as a soil drench, you should not apply Admire, Assail, Clutch or Actara for any pest for the rest of the year. However, they are a good choice in new plantings where white grubs could also be a problem.

Assail 70 WP (acetamiprid, group 4A): This locally systemic insecticide is moderately toxic to bees. It is also labelled for tarnished plant bug (at the high labelled rate) and leafhoppers, so it is a good choice when these pests are also a concern. **Sivanto Prime** (flupyradifurone, group 4D): This is a recent registration and is expected to provide good aphid control.

Unlike most group 4 insecticides, Sivanto is considered safe to beneficial insects and bees, although it should not be sprayed directly on bees when they are working. It can be used in rotation with other group 4 insecticides if there is no other option. It has no known activity on strawberry pests other than aphids, although it controls leafhoppers and whiteflies on other crops. This should be a great product to use in rotation with Beleaf.

Beleaf 50 SG (flonicamid, group 9): This product provides good control of aphids, is safe to bees and beneficials, and will also suppress tarnished plant bug (at the high labelled rate). Although aphids apparently stop feeding within hours of being treated, they might take a few days to die. This is a great product to use in rotation with Sivanto.

Malathion, Mako, Decis, Matador, Rimon: These products do not control aphids in strawberries!

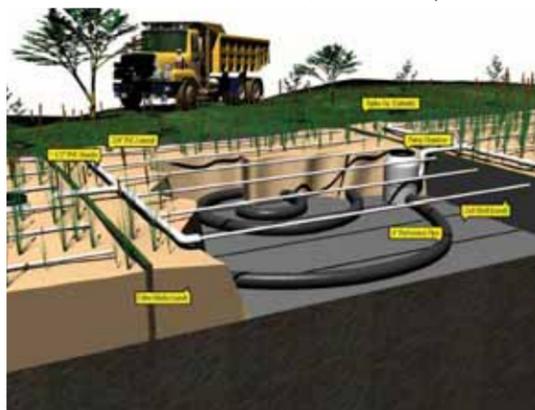
Monitoring and control of strawberry aphids is an important part of a strawberry pest management program. Weekly scouting and three to five insecticide applications a year are part of the "new normal" and important for virus management in strawberries.

Pam Fisher is berry crop specialist, OMAFRA.

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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
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BERRY FOCUS

What is your plan for Spotted Wing Drosophila control in 2016?

Table 1: Insecticides registered or pending for SWD control in Ontario berry crops in 2016

| Product | Active ingredient (group) | Crop registrations | Preharvest interval |
|---------------------|---------------------------|--|---------------------|
| Imidan 70 Insta-pak | phosmet (group 1b) | Blueberries | 14 days |
| Delegate | spinetoram (group 5) | Blueberries and bushberry crop group 13-07B | 3 days |
| | | Raspberries and blackberries | 1 day |
| | | Strawberries | 1 day |
| Entrust, Success | spinosad (group 5) | Blueberries and bushberry crop group 13-07B | 3 days |
| | | Raspberries and blackberries | 1 day |
| | | Strawberries | 1 day |
| Exirel | cyantraniliprole group 28 | Blueberries and bushberry crop group 13-07B | 3 days |
| Mako | cypermethrin, group 3 | Emergency use registration anticipated for raspberries, blackberries and strawberries | |
| Malathion 85E | malathion, group 1B | Emergency use registration anticipated for raspberries, blackberries, strawberries and blueberries | |

*bushberries = Crops in crop group 13-07B, including elderberries, haskaps, saskatoon berries

PAM FISHER

Spotted wing drosophila is an invasive insect pest that is here to stay. We know it is present from Windsor to Ottawa and at least as far north as New Liskeard. Management of this difficult pest requires a plan.

Plan to improve spray coverage: Make sure that each spray provides the best possible control by ensuring very thorough coverage of the crop. SWD flies are weak fliers and hang out around the inside and lower canopy. Prune your crop for better spray penetration and better SWD control.

Plan your insecticide program:

Insecticides which are fully registered for spotted wing drosophila have been included in OMAFRA Publication 360, Guide to Fruit Production, 2016-2017. We expect that additional products will be registered through the emergency use registration process. Check the OMAFRA website (Ontario.ca/spotted-wing) and ONFruit.wordpress.com for a full listing of products registered in 2016. Weekly insecticides are required when flies are active and ripe fruit is present. It is important to choose products from different groups rather than use one product or group of products repeatedly.

Plan to harvest routinely: When SWD is active, crops should be harvested every 2-3 days and all ripe fruit removed with

each pass. Unmarketable fruit should be removed from the field at the same time as fruit is harvested.

Plan a continuous cold chain after harvest:

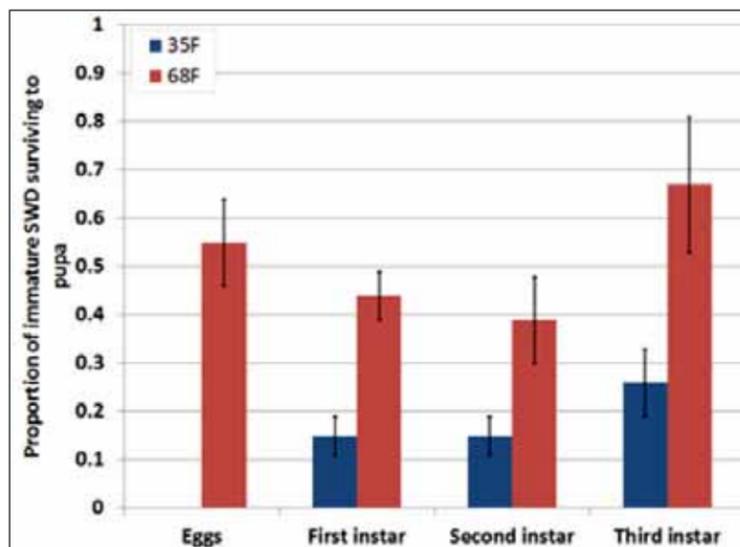
Harvested fruit should be cooled quickly and stay cold throughout the various stages of marketing. Temperatures below 2°C (35°F) will slow the development of any SWD eggs and larvae in the fruit. A high percentage of eggs and larvae will be killed in cold storage.

Plan to do salt-water tests: We think that monitoring fruit for early signs of SWD infestation is easier and more efficient than trapping. Information on how to do this test is posted at Ontario.ca/spotted-wing. Collect your supplies and make

the salt water solution up ahead of time, so the task can be a simple routine during harvest.

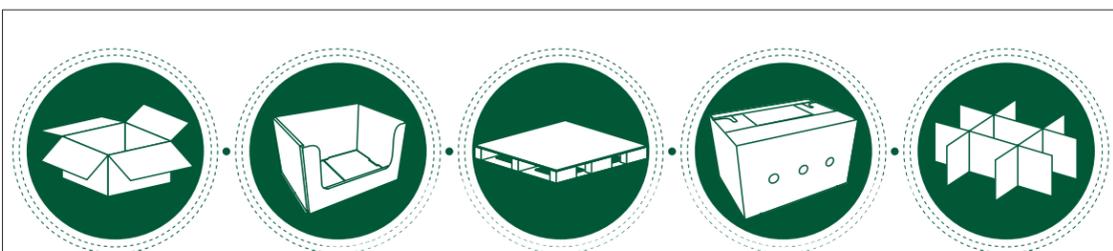
Plan to stay informed: The Ontario Berry Growers Association and OMAFRA will co-ordinate a regional monitoring program for SWD in 2016. Traps will be set at 20-25 sites across Ontario and maintained with the help of volunteers and OMAFRA students. Updates on SWD activity will be posted weekly at Ontario.ca/spottedwing and ONFruit.wordpress.com. Check these information sources often for updates on SWD activity in your area.

Pam Fisher is berry crop specialist, OMAFRA.



Effect of postharvest temperature on survival of SWD in blueberries (Source Hannah Burrack, NC State University)

Figure 1: SWD survival and development can be reduced by holding fruit at 2°C immediately after harvest and all through the marketing chain.



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MINOR USE

Report from the 14th Annual National Minor Use Priority Setting Workshop



Photo by Denis Cahill.

JIM CHAPUT

Agriculture and Agri-Food Canada, Pest Management Centre (AAFC-PMC) hosted the 14th national minor use priority setting workshop in Ottawa at the end of March.

This meeting brought together university and federal researchers, crop extension specialists, provincial specialists, minor use coordinators, registrants, PMRA representatives, growers and grower organization representatives, processing companies and other stakehold-

ers. In addition several individuals from the U.S. IR-4 program also attended the meeting.

The purpose of this meeting was to review the top minor use priorities identified by each of the provinces for all crops including ornamentals and to establish the top priority projects for Agriculture and Agri-Food Canada, Pest Management Centre (AAFC-PMC) to do work on in 2017.

A preliminary nematode workshop was held on the Monday afternoon, was well attended but did not identify many new management

options. The first full day of the minor use program covered pathology priorities, the second day covered entomology priorities and the third day covered weed science priorities. This year biopesticide priorities were reviewed at the beginning of each discipline day and based upon national interest, two or three potential biopesticides projects were chosen each day for a merit analysis that will eventually choose three biopesticides Category A projects for PMC to undertake.

For the conventional minor use needs for each of the three main pest management disciplines, up to 10 top priorities (ranked as As) are chosen from a long list of identified crop protection product solutions. Additional secondary priorities (ranked as Bs) were also chosen for each discipline each day.

The provincial minor use coordinators could also add five regional upgrade projects at the end of the process and the organic industry could also add two priority projects to the list of chosen projects.

Additional top crop/pest issues that did not have any identifiable solutions were also chosen to be part of minor use screening trials designed to find some useful solutions for growers. At this year's meeting the top priorities chosen for this group (called APWS) included balsam shoot boring sawfly on Christmas trees, blossom blight on alfalfa, Septoria on outdoor ornamentals, broadleaf weeds on coriander and quinoa.

The discussions, collaborations and decisions made at this meeting demonstrated the critical needs producers have and how the system can work to address them. Growers, researchers, registrants, provincial specialists and other stakeholders worked to reach consensus and negotiate needs. Overall the process was successful and now the next step is for AAFC-PMC to complete the minor use submissions that were agreed upon. Additionally the provinces also have to follow up on a number of potential submissions and rationales for minor use needs.

The following table summarizes the projects agreed upon for each discipline. These projects will be submitted to the PMRA by AAFC-PMC, and the data requirements completed in 2018-2019. Registration decisions for these will likely occur in late 2019 and 2020. A final version of the top projects will be available this summer on the AAFC-PMC website: http://www.agr.gc.ca/env/pest/index_e.php

Jim Chaput is OMAFRA's minor use coordinator based in Guelph.

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MINOR USE

Report from the 14th Annual National Minor Use Priority Setting Workshop

| Crop/Crop Group | Pest(s) | Product Solution | Active Ingredient Solution | Registrant |
|---|---------------------------------------|---------------------------|--|--------------|
| BIOPESTICIDE PROJECTS ** only 3 of these go forward after merit analysis | | | | |
| Outdoor and GH food and non-food crops | Insects, diseases | Prev-Am | orange oil | Oro-Agri |
| Outdoor and GH food and non-food crops | Diseases | Bio-Tam | Trichoderma asperellum, gamsii | Isagro |
| Outdoor food crops | Birds | Flockbuster | oils of cinnamon, thyme, peppermint, rosemary, citric acid | Skeet-R-Gone |
| Outdoor and GH food and non-food crops | Whiteflies, aphids, mites, leafminers | PRF-97 | Isaria fumosorosea | Certis |
| Outdoor and GH food and non-food crops | Insects | Spear | spider venom peptides | Vestaron |
| Outdoor food, non-food crops | Weeds | Weed Zap | cinnamon oil, clove oil | JH Biotech |
| Outdoor food, non-food crops | Weeds | Matran | clove oil | Keyplex |
| WEED SCIENCE PROJECTS | | | | |
| Celariac | Weeds | Select | clethodim | Bayer |
| Garlic | Weeds | Chateau | flumioxazin | Valent |
| Leeks | Weeds (muck soil) | Prowl | pendimethalin | BASF |
| Chinese cabbage | Weeds | Delect | clethodim | Bayer |
| Rice | Weeds | Sandea | halosulfuron | Gowan |
| Timothy | Weeds | Pixxaro | halauxifen + fluroxypyr + mcpa | Dow Agro |
| Mint | Weeds | Aim | carfentrazone ethyl | FMC |
| Flax | Weeds | Armezon | topramazone | BASF |
| Celery | Weeds | Select | clethodim | Bayer |
| Coriander | Weeds | APWS | TBD | TBD |
| Quinoa | Weeds | APWS | TBD | TBD |
| ENTOMOLOGY PROJECTS | | | | |
| Spinach | Flea beetles | Pyganic | pyrethrins | MGK |
| Mustard greens | Flea beetles | Pyganic | pyrethrins | MGK |
| GH peppers | Pepper weevil | IKI 3106 | cyclaniliprole | ISK |
| Blueberry, lowbush | Flea beetle | Mako | cypermethrin | Engage |
| Strawberry | SWD | Malathion (rate increase) | malathion | Loveland |
| Basil | Aphids | Beleaf | flonicamid | ISK |
| Asparagus | Asparagus beetle | Success (reduce PHI) | spinosad | Dow Agro |
| Quinoa | Beet webworm | Coragen | chlorantraniliprole | DuPont |
| Xmas trees | Balsam shoot boring sawfly | APWS | TBD | TBD |
| Outdoor ornamentals | Red headed flea beetle | IKI 3106 | cyclaniliprole | ISK |
| Outdoor ornamentals | White pine weevil | Matador | cyhalothrin-lambda | Syngenta |
| PLANT PATHOLOGY PROJECTS | | | | |
| Lettuce, GH | <i>Botrytis</i> | Adepidyn | pydiflumetofen | Syngenta |
| Swiss Chard | <i>Cercospora</i> | Cueva | copper | Neudorff |
| GH pepper | <i>Fusarium</i> | Adepidyn | pydiflumetofen | Syngenta |
| GH tomato | Powdery mildew | Pyriofenone | pyriofenone | ISK |
| Raspberry | Botrytis | Adepidyn | pydiflumetofen | Syngenta |
| Alfalfa | Blossom blight | APWS | TBD | TBD |
| Hops | Powdery mildew | Folicur | tebuconazole | Bayer |
| GH ornamentals | Downy mildew | Subdue Maxx | metalaxyl-m | Syngenta |
| Ornamentals outdoor | <i>Septoria</i> | APWS | TBD | TBD |
| REGIONAL UPGRADE PROJECTS | | | | |
| Sweet corn (MARITIMES) | Aphids | Beleaf | flonicamid | ISK |
| Radish (QC) | Downey mildew | Confine | k salts of phosphorous acid | ACC |
| Cherries (ON) | Aphids | Pyganic | pyrethrins | MGK |
| Field peppers (PRAIRIES) | Lepidoptera | Verimark | cyantraniliprole | DuPont |
| Blueberries (BC) | Aphids | Beleaf | flonicamid | ISK |
| ORGANIC PRIORITIES | | | | |
| Lettuce, head | Tarnished plantbug | Pyganic | pyrethrins | MGK |
| Lettuce, leaf | ThripsAphids | Pyganic | pyrethrins | MGK |

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MINOR USE

Dual II Magnum herbicide label expanded for management of weeds on celery, Asian radish, eggplant and parsnips in Canada

JIM CHAPUT

The Pest Management Regulatory Agency (PMRA) recently announced the approval of several URMULE registrations for Dual II Magnum herbicide for management of weeds on celery, Asian radish (daikon, lo bok, mooli), parsnips and eggplant transplants in Canada. Dual II Magnum herbicide was already labeled for use on a wide range of crops for weed control in Canada.

The minor use project for celery was originally submitted by Ontario in 2010 and completed by AAFC-PMC. The minor use project for eggplant was sponsored by Ontario in 2014 and the projects for parsnip and Asian radish were sponsored by AAFC-PMC in 2012 all 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 Dual II Magnum herbicide.

Dual II Magnum herbicide 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. Follow all other precautions and directions for use on the Dual II Magnum 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 www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php

Jim Chaput is OMAFRA's minor use coordinator based in Guelph.

Editor's note: For more information including a chart on usage visit www.thegrower.org



Belchim Crop Protection NV to take stake in Canadian company Engage Agro

Belchim Crop Protection NV, Londerzeel, Belgium is acquiring a significant minority stake in the Canadian company, Engage Agro Corporation. The agreement which will take effect in May, 2016 was signed between Dirk Putteman, CEO of Belchim Crop Protection and Ray Chyc of Engage Agro along with a number of other shareholders.

Engage Agro, based in Guelph, Ontario, Canada distributes products from a large range of international R&D

based companies. The company employs 40 people and is one of the largest independent crop protection distribution companies in Canada. The company's primary focus is to develop, register and market crop protection and crop enhancement products for the Canadian market. The synergies between Belchim Crop Protection and Engage Agro will make this company one of the leading privately-owned distribution companies in the Canadian Market.

Today Belchim Crop Protection has

strong market positions in EU28 countries. The company portfolio consists of a wide range of crop protection products including specialties in important European crops such as potatoes, vines, vegetables and corn.

Ray Chyc, of Engage Agro says, "We have a tremendous family at Engage, and are ecstatic to now be partnering with a family-owned company like Belchim who has the same roots and core values as we do. Work boots to boardrooms, we like to get things done."

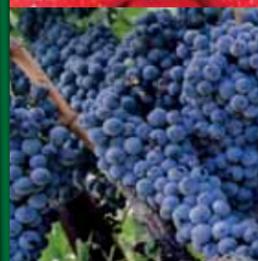
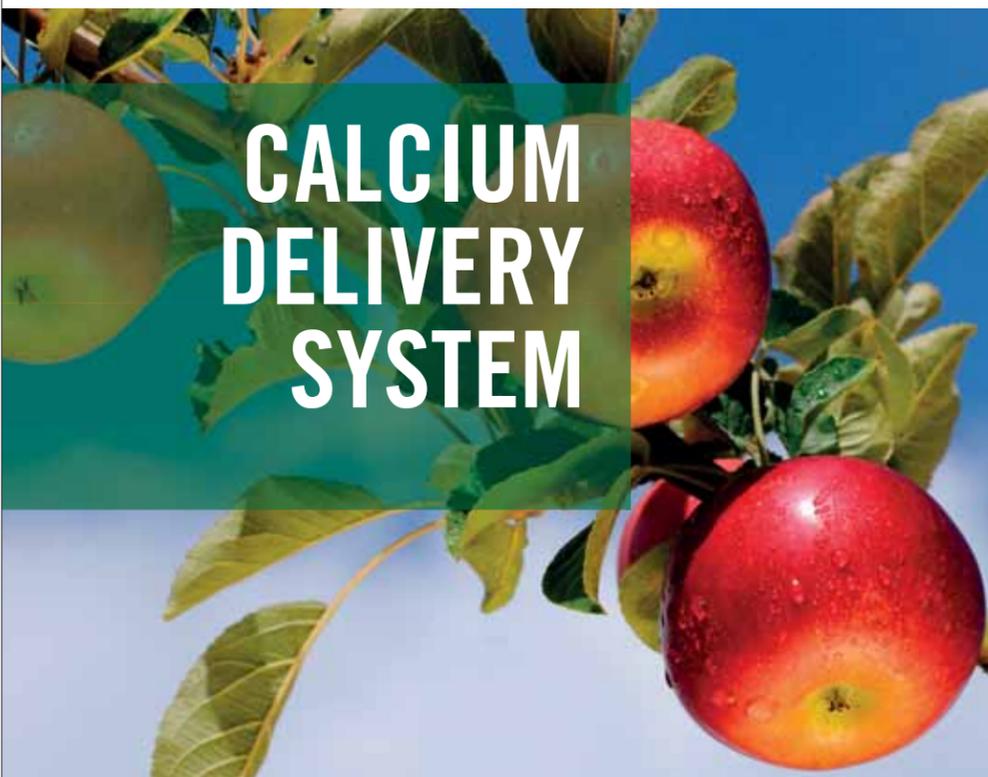
We now especially look forward to continue to work with growers across Canada and suppliers around the globe to bring unique, value-added products to the Canadian market, as we have been doing for the last 20 years." The company plans to run "business as usual" out of its office in Guelph, Ontario.

Source: Engage Agro news release

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MINOR USE



CRAIG'S COMMENTS

Homework

CRAIG HUNTER
OFVGA

'A farmer's job is never done.'

This has never been truer than it is today. Not only do growers have more paperwork than ever before, they are now expected to do others' work too! It is bad enough that we are expected to do our own pest assessments to get a plant health certificate, (because there are not enough paid inspectors left to do it and they cost too much anyway) but we still get to pay for the certificate! Maybe the price of paper (or electronic message) has risen as fast as gas prices!

When it comes to defending the right to use pesticides that we (and the rest of the world) have been using without issue for decades, it seems we must generate the data that should have been used in the first place in making the proposed decision! I am not sure if the registrant should have been on top of that, or Pest Management Regulatory Agency (PMRA) or both. Certainly the use of old or very old (and never Canada-applicable anyway) data would NEVER be allowed to register a pesticide. However, it seems it is quite alright to use (misuse) it to try to eliminate some or all uses of an old reliable product!

We are told that new data is acceptable for us to submit in an attempt to alter the published proposal(s). It is now up to growers across Canada to provide that information as PMRA has never ever asked for

it in the past. Oh, and we need it within the next 30 days! A sample of a survey form is available opposite in **The Grower**. PLEASE take the time RIGHT NOW to fill it out and send it back to me.

There have been other surveys sent out by the Canadian Horticultural Council (CHC), some by registrants, and some from commodity groups. I applaud them for this. It is better to over-ask for this data than to wish more people had been contacted after the decision has been finalized!

Registrants also have some hard data to find or create. In the absence of a Dislodgeable Foliar Residue Study, PMRA will default to using a generic number that is inherently conservative (high). A simple change from a generic 25 per cent to a 'real' 5 per cent means a five-fold (five times) lower estimate of what may be rubbed off a sprayed plant onto a worker in a treated field post-harvest! It is upon such changes that huge changes to the outcome of a review rest. Likewise, if a worker never needs to enter a field and come into plant contact after a pesticide has been applied, that is also a critical factor. Some field practices of 30 years ago are now gone with the advent of good herbicides, (no more hand weeding after early emergence and well before fungicide and insecticide use), the use of precision planters, (no more hand thinning of plants to get optimum plant stands), and solid set, centre pivot, trickle and trickle tape irrigation systems have almost eliminated the need to move pipes across the crop in season. Much of the pesticide application is now done with closed cabs with charcoal filters so the operator has no direct crop contact. Even when cultivating, mowing grass between rows, and mechanical thinning involves little actual foliage contact.

Many activities that do



Photo by Glenn Lawson

involve plant contact are done early in the season. Pruning of most fruit crops is done in the dormant season before applications commence. Pruning and subsequent tying of grapes must be completed just as the sap starts to flow to allow cane manipulation without breakage.

It is at the later post-bloom thinning of tree fruit where workers may be first exposed to residues. However, with modern tree planting styles and configurations, and with the use of mobile platforms, the worker exposure is minimal as compared to 30 years ago. The only real point of contact is the hands, and the use of nitrile gloves of today all but eliminates even that. Gone are the days of the bulky lined yellow gloves that got the hands hot and sweaty. The gloves like your dentist or doctor uses are comfortable and cheap and do the job.

Scouting is perhaps the activity with the most potential for foliar contact. Given that they can access spray records and know the re-entry times,

they will be able to minimize undue contact. Even so, they are supervised by trained professionals, and must wear appropriate safety gear such as boots, long pants, long sleeves, and if necessary, nitrile gloves. Regardless of the time spent in the field, their actual skin contact is so little as to be characterized as minimal.

The last main opportunity for plant contact is hand harvesting. This is slowly becoming a thing of the past except for a few key crops. Here we must be able to document how much (%) of a crop is hand harvested versus machine harvested. We must also consider whether gloves are practical for use. Lastly, we must consider the longest pre-harvest interval can be accepted if it must also coincide with the re-entry for hand harvest.

All of these factors are important on every horticultural crop we grow. That is because the data may be needed to defend the continued use and reasonable re-entry times for scouting or harvest activities for

virtually every pesticide we use. We face re-evaluations of all our important fungicides immediately, and several other products in the next six months.

I cannot state loudly enough that the entire future of horticultural crop production in Canada is facing an uncertain and possibly dismal future without the ability to use these fungicides!

Growers have enough paperwork to do, and I am asking you all to do a bit more. We want to defend the use of these products, but need your help! We need registrant help too as some data is beyond our scope. Remember, WE own the use patterns and the crop production practices! We need to show we can accept our responsibility. We also need to insist that we can be responsible to ensure the use of gloves if that means better worker protection, and the continuation of these registrations!

We are at bat, and we need a home run. Please. Can you help hit the ball out of the park?

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MINOR USE

Canadian grower fungicide survey deadline: May 15

Fungicide tools are at risk due to regulatory pressures. The Pest Management Regulatory Agency (PMRA) is in need of real numbers and statistics regarding the use of fungicide application on-farm to help decide what exposure times are for various activities. Each activity may lead to worker exposure to any pesticide that has been applied to the crop. **These anonymous surveys will be aggregated for the Canadian Horticultural Council - Crop Protection Advisory Committee submission to PMRA.**

The exposure often depends on the time a worker is exposed, such as average number of hours a day and days in a season. Some activities occur before any pesticide is sprayed such as tying and pruning grapes, so these should be ignored. Scouting a crop may be an hour twice a week on a farm all season. Please give a number or a zero if that activity does not occur on your farm.

Complete the survey online at www.surveymonkey.com/r/growerfungicidesurvey or print and mail to the attention of Craig Hunter 105-355 Elmira Road North Guelph, ON N1K1S5

Please complete this survey for each crop that you grow.

1. Please indicate the specific crop to which this survey applies on your farm. For additional crops, please fill out another survey.

2. Please indicate the number of hours per week and the number of weeks per season workers spend on each activity on your farm for the indicated crop.

| | Per Week | Number of weeks per season |
|----------------------------|----------|----------------------------|
| a. Pruning | | |
| b. Tying | | |
| c. Thinning | | |
| d. Hand weeding | | |
| e. Moving irrigation pipes | | |
| f. Scouting | | |
| g. Hand harvest | | |
| h. Mowing, cultivating | | |
| i. (Other- name) | | |

In addition, please answer the following:

3. Do you have a Grower Pesticide Safety Certificate?

(circle one)
YES NO

4. Do you have an On-Farm Safety Program? YES NO

5. Do you ensure that workers follow the re-entry intervals and wear the proper personal protective gear such as long pants and gloves? YES NO

6. Please list the current fungicides in use on your farm for the selected crop:

7. How many total acres may be affected by proposed changes to fungicide registration for the indicated crop?

8. Why do you need to be able to use this particular product?

9. Are there any effective fungicide replacements for the selected crop available? (If you answer yes, specify which replacements are available) YES NO

10. How many jobs are at stake on your farm if you can no longer grow the selected crop profitably?

11. What is your estimated loss of production (in Canadian dollars) if you can no longer grow the selected crop profitably?

Note: Please consider these points when writing to your MP or MPP about any pesticide issue. Remember that politicians assess the impact of change in terms of effect on the local and national economy, employment, trade and may not have any idea about the value of the use of pesticides.

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