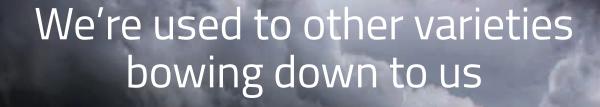


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SUSTAINABILITY SEEMS LIKE SECOND NATURE TO CANADIAN GROWERS

Of the 100 Canadian canola growers audited last year under the ISCC sustainability certification system, all of them passed. This suggests Canadian growers can meet sustainability criteria at low or zero added cost, with the benefit being continued or new market access.



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The Editor's Desk

Jay Whetter



Sustained

Frankly, we don't yet know how "sustainability" will change the way we farm in Western Canada. What we do know is that a lot of big companies – Walmart, Unilever, etc. – are keen to show customers that the food they offer came from farms that took care of their workers, didn't cut down forests to create more land, and made enough money to keep going. Sustainability, in short, includes economic, environmental and social components.

Four messages resonated with me while I wrote the cover article:

- 1. Canola is not going it alone. And growers are not going it alone. The Canadian Roundtable on Sustainable Crops includes representatives from all crops and all levels of the food supply chain, working on a Canadian solution. The roundtable will seek continuity where possible so growers aren't pulled in all directions trying to meet different sustainability standards for all sorts of crops and markets.
- 2. Keep good notes. Sustainability programs will require you to record what products you use where, why and at what rates. On the positive side, these notes will be handy for your own farm management, too. If a lygus situation pops up, for example, you can check notes from the last time you sprayed for lygus bugs to compare crop timing, the level of damage, how many lygus prompted you to make the decision, what product you used at what rate, and how well it worked.

- 3. Clearing new land can disqualify growers for some sustainability programs, including the EU biodiesel opportunity. For most regions of the Prairies, if pockets of land haven't been cleared by now, economic and soil quality reasons were probably determined generations ago. Canada in general is clearing very little new land, which appeals to end users looking for sustainable suppliers.
- 4. Get a feel for the market. Talk with your elevator agent from time to time, or the crusher you deliver to. See what sustainability messages are trickling down to them, and what pilot programs they may have.

Demand for sustainably produced food is slowly moving from all talk to some action. Whether it represents a complete change - as in, sustainability certification is required for access to most of our markets - is still uncertain. It may never happen. Markets could get distracted by another change in consumer tastes. But it is folly to assume what markets will do, and we have to be ready. Meanwhile, you can take heart that sustainability, ultimately and, it seems, universally, is based on measures that protect your family, your workers and your farm environment; require informed and justified ag input decisions; and provide for a profitable farm business. You might already be there.



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CANOL

We hear the word "sustainability" a lot in agriculture these days. Sustainability is one of the Canola Council of Canada's core values. But what is it really, and what will it mean for canola growers?

By Jay Whetter

What is sustainability?



yan Wilfing is farming sustainably. He went through an International Sustainability and Carbon Certification checklist and audit with ADM in Lloydminster that qualified the Meadow Lake, SK, grower as "sustainable." That qualification means he is eligible to sell his canola into the European biodiesel market.

"On all of our sales tickets to ADM it says 'sustainable canola'," Wilfing says.

Wilfing first qualified three years ago. He re-qualifies each year, answering a series of questions about fertilizer and pesticide inputs, employee wages, safety plans, minimum tillage and whether he had cleared any new land recently. Wilfing knows of at least one grower who had cleared some land and was disqualified. Last year, a third party certifier for the International Sustainability and Carbon Certification (ISCC) program audited Wilfing's responses more closely. He passed again.

"We're pedigreed seed growers as well as commercial canola growers, so we already have a good record keeping system in place," he says. "It turns out we didn't have to make any changes to our current system to qualify as sustainable."

Wilfing thinks a lot of Canadian growers could qualify for sustainability certification. "If by going through this process we demonstrate that Canadian growers are good stewards of the land, then that is something we will be able to take advantage of some day," he says.

Robert Cash is manager of ADM's Environmental Technology Centre for Canada, Australia, New Zealand and the South Pacific. "ADM sees sustainability certification as another opportunity to connect canola growers to the global marketplace," he says. Today, the European Union biodiesel market is the primary destination for sustainably certified canola oil.

What drives ADM's sustainability efforts, Cash says, is the consistent message from the marketplace to provide sustainable products. "Whether food or fuel, the consumer expects us to steward natural resources well. We are committed to this as a company and working with

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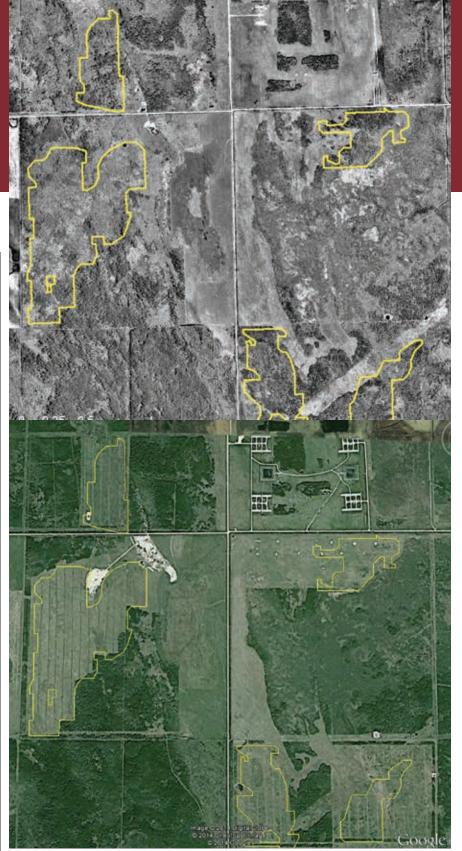
Robert Cash, ADM

growers to align their farming practices with the expectations of the market they serve."

Dennis Rogoza agrees that marketplace expectations for sustainability are rising. Rogoza has been sustainability advisor to the Canola Council of Canada (CCC) for the past four years. "Four years ago there was not much discussion in North America about sustainability criteria being demanded in the food sector. Today, many global food sector brands are embracing sustainability and requiring their supply chains to meet sustainability requirements," he says.

Rogoza offers Unilever and Walmart as examples. Unilever, which makes the canola-based margarine Becel among many other products, has stated that, as of 2020, it will no longer purchase product that does not meet its sustainability criteria. Walmart, the world's largest retailer, has made public commitments regarding sustainability targets and many of its suppliers have publicly pledged to support Walmart's goals.

continued on page 9



These satellite images show how land use has changed for a small area of southeastern Manitoba from 2000 (top) to 2013 (bottom). Highlighted areas are forest or shrubland that has been reclassified as farmland. Most areas of Canada had little to no change in that time, given that agriculture area in Canada is stable year to year. This is important from a sustainability perspective. The ISCC sustainability questionnaire to growers includes this question: "Do you confirm that there was no land conversion since 1/1/2008 (entire owned and leased land)?" Satellite images are courtesy the Agricultural Land Use Change Indicator, which is part of Agriculture and Agri-Food Canada's Science and Technology Branch.



Patti Miller, CCC president

The CCC perspective

Sustainability is one the CCC's five core values. The sustainability value, as it is written, says the CCC is committed to maintaining a profitable, sustainable canola industry, including improving the health of consumers and our environment.

"Sustainability has always been integral to the way we look at the industry, the kind of research we do and the recommendations we share with the grower community," says Patti Miller, president of the CCC. There are dozens of definitions of sustainability, and most focus on three main areas - social (farmers, workers, communities), environmental (soil, air, water) and economic (farmer, value chain). "For us it's about making sure our natural resources are maintained or improved for the generations to come, and doing so in a way that allows the entire value chain to be profitable.

"If the soil, water and air aren't protected, in the long run we won't be able to provide a healthy product to consumers around the world. If the value chain isn't able to produce profitably, we won't be able to serve the world market. So sustainability of resources

and profitability are important to our long term goals."

Canola is a leader in Canada when it comes to sustainability targets and certification, with ISCC certification just one example. Miller points to the canola industry's adoption of genetically modified traits for herbicide tolerance as another example. Herbicide tolerant canola helped speed the adoption of no-till, reduced the application of crop protection products, and reduced the use of fossil fuels through fewer trips over the field. "We have a great story to tell," Miller says. "We need to start telling it in a way that the average city consumer can relate to." (For more tips on telling our stories, see the article *Desperately* seeking understanding in this issue.)

The incentive for growers

"To this day, producing sustainable canola hasn't improved my price," Wilfing says. There may never be premiums, either. Instead, proof of sustainable production may be something end users require simply because their customers demand it from them. It may be a requirement for entry into certain markets. "It becomes a market access issue," Rogoza says, "And ensuring future

"Many of the practices Canadian growers use in agriculture and food production already meet many of these requirements, but we need to tell the consumer in a way that inspires trust and confidence in the products they are buying from the grocery store." market access for the canola industry is very important to meet growth targets for the industry."

Given the head start Canadian canola has and the overall positive impression of Canadian agriculture globally, a movement toward sustainability measures – if it takes a firm hold – could be our opportunity to take advantage of what many Canadian growers are already doing.

Cash says, "The sustainable certification that growers are able to obtain through a partnership with ADM provides the opportunity to promote the sustainable nature of Canadian agriculture."

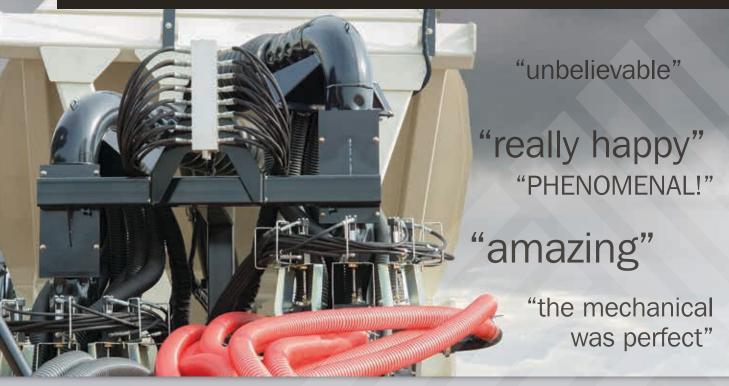
Lauren Stone with Cargill, another large agri-food business looking closely at sustainability opportunities, has noticed an "industry shift" toward sustainability. Stone, who is manager of corporate affairs and sustainability at Cargill's Canadian headquarters in Winnipeg, calls the EU biodiesel market – which has sustainability requirements for access – one example of a "huge opportunity" Canada can access if growers meet EU certification.

"Many of the practices Canadian growers use in agriculture and food production already meet many of these requirements, but we need to tell the consumer in a way that inspires trust and confidence in the products they are buying from the grocery store," Stone says. "As an industry, not only do we need to meet these practices, but also verify with records why we made these decisions in the field or at the processing plant."

Benefits to sustainability are not just about creating or keeping markets, but also protecting the farm itself, Miller adds. "Farming practices that preserve the natural resources inherent in a farm will mean that farming operations can continue for future generations," she says. "As farmers are able to connect their practices to how sustainability is measured, they can refine their choices in ways that improve sustainability measurements and often reduce their costs."



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How this will shake out for

uncertain. "We know that some end

Canadian canola growers is still

He adds that of 100 Canadian canola growers audited last year under the ISCC sustainability certification system (Wilfing being one of them), all of them passed. "This suggests that Canadian canola growers are likely well placed to meet sustainability criteria at low or zero added cost," he says. "The flip side of this issue is continued or new market access."

Wilfing says sustainability might be more about marketing than any major change to the way growers operate. "If sustainability is going to be the way of the world, it could mean that if we produce higher grade stuff, we get the higher grade markets," he says. "And if it means it buys us a new market – like the EU biodiesel market – then it's worth it."

"We're pedigreed seed growers as well as commercial canola growers, so we already have a good record keeping system in place. It turns out we didn't have to make any changes to our current system to qualify as sustainable."

- Ryan Wilfing, Meadow Lake, SK

Not just a canola thing

Canola has been a leader in responding to global market requirements for sustainability certification. Canola was the first Canadian crop to be certified through ISCC. But the CCC recognizes that farmers don't just grow

canola, and that markets are demanding certification for all crops. That is why the CCC is working with many other commodity groups and stakeholders in the grains sector to establish the Canadian Roundtable for Sustainable Crops.

"We want to work with all crops to ensure that the administrative burden on farmers and the rest of the value chain for meeting sustainability certification schemes is as small as possible," Miller says. (See Miller's article in this issue for more on the roundtable.)

Cargill is among the stakeholders at the roundtable. "Sustainability must encompass the entire value chain, not focus solely on the producer or processor. We recognize that different customers or markets have different sustainability needs," says Stone. "With the roundtable,

we hope Canada can take the lead on defining sustainable crops."

When asked to look into his crystal ball, Rogoza predicts that in five years the discussion will have shifted from questions like "What is sustainability?" to solutions. "In five years, we will be delivering data into the supply chain that demonstrates how Canadian growers are meeting the sustainability criteria of different customers."

We don't have all the answers, yet, he says. "But we do know that the old way is not going to prevail." •

Jay Whetter is editor of Canola Digest. He also produces Canola Watch, the Canola Council of Canada's free and timely agronomy newsletter. Sign up at www.canolawatch.org.

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The Field Print Calculator measures on-farm sustainability performance through environmental indicators such as energy use, climate impact, land use and soil erosion. Its simple design allows farmers to enter data themselves and assess their own operations or it can be integrated into existing agronomy management software.

The calculator is a proactive step by the Field Print Initiative to demonstrate that Canadian farmers meet the environmental sustainability demands of our consumers and supply chains. It also offers a way for farmers to identify operational efficiencies on their own farms.

The current version estimates the environmental impact of canola, oats, spring wheat and peas in Western Canada and can be accessed at www.serecon.ca/resources/calculator. A new version of the calculator is expected to be complete in 2018 that will include Eastern Canada and assess additional environmental indicators.

Organizations involved in the Field Print Initiative include: Canadian Canola Growers Association, Pulse Canada, Canadian Fertilizer Institute, Manitoba Pulse Growers Association, Ducks Unlimited, Farmers Edge, Agri-Data Solutions, Agri-Trend, Grain Farmers of Ontario, General Mills Inc., CropLife Canada, Cargill, and Prairie Oat Growers Association.







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Canada's ag commodity groups are working together to define and drive Canada's sustainability efforts. The Canadian Roundtable on Sustainable Crops is our tool to identify real opportunities, set common goals and reduce duplication.

By Patti Miller

Commodities co-operate on sustainability

he new Canadian Roundtable for Sustainable Crops (CRSC) is a great example of different agriculture groups working together for the good of all crops and all Canadian grain growers. This voluntary, national initiative, driven by the grains sector, will help define Canada as a global leader in meeting consumer demand for food produced in economically, environmentally and socially sustainable ways.

The CRSC is under the stewardship of the Canada Grains Council. The Canola Council of Canada (CCC) is part of the start up committee, along with Pulse Canada, Cereals Canada, Barley Council of Canada, Flax Council of Canada, Grain Growers of Canada, Grain Farmers of Ontario, La Fédération des producteurs de cultures commerciales, Canadian Canola Growers Association, Prairie Oat Growers Association, Cargill, McDonalds, Canadian Fertilizer Institute, and Agriculture and Agri-Food Canada.

CRSC membership includes other end-use customers like Unilever, nongovernmental organizations like Ducks Unlimited, life science and crop input companies and associations, provincial governments and numerous other farmer and commodity organizations. Organizations who are interested in advancing Canada's interests in sustainability for the grains and oilseeds sector are encouraged to join.

Canola was the first crop in Canada to be certified under an international sustainability scheme and the CCC has played a significant role in helping establish the CRSC. We actively participate in the roundtable because it represents the entire Canadian grains value chain - which will minimize duplication of efforts among commodity groups and because a unified effort will position Canada as a global sustainability leader. We are sharing our knowledge and the tools we have developed because farmers and companies grow and market more than just canola. All crops gain from this, including canola.

CRSC's mission is to "Create value for all members of Canada's grains sector by providing a national forum for advancing, reporting on and communicating the sustainability of Canadian grain production."

What does this mean in practical terms? The CRSC will:

- Identify areas where we need to improve or build our knowledge on sustainable production practices.
- Work to ensure that all parts of the value chain know about our efforts to meet marketplace objectives for

- environmental, social and economic sustainability.
- Work with Canada's grains sector in the development and assessment of sustainability measurements to meet market needs. These measurements can be adapted and used across all grains and oilseeds.
- Contribute to the development of a domestic policy environment that supports the sustainability and market access objectives of Canada's grains sector.
- Raise awareness among domestic and global audiences of Canada's investment and performance in supplying sustainably grown crops.

The goal is to make sure any sustainability-based initiatives are market driven and science based, and present real growth opportunities for Canada's grains sector.

What are the next steps?

The initial steering committee is working on membership, funding and an action plan to develop "sustainability metrics" for Canada's grains sector. By taking a common approach, the hope is that growers won't have to follow different rules for each crop and for each market. At present, no such comprehensive approach exists. Different parts of Canada's grain industry have been responding on a case-by-case basis to sustainability metric demands from world markets. If we work together we can reduce the burden on farmers and the value chain, and showcase the sustainability of Canadian crops.

We have a four-year plan to get CRSC initiatives in place. Everything is starting to roll, with membership and funding drives and priority projects all just underway.

Sustainability is a core value of the CCC, as it is for the whole Canadian grains sector. It makes sense that all stakeholders work together to better understand the opportunities and risks, and to seize global opportunities for the whole Canadian agriculture sector. I look forward to representing the CCC at a full roundtable meeting this month (November 2014) in Ottawa.

Patti Miller is president of the Canola Council of Canada.

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The basics of marketing are to know your breakeven, and sell in increments when profitable prices are on offer. But it doesn't always shake out that way.

By Richard Kamchen

Common pitfalls in crop marketing

arketing is not an exact science, and no two years are the same. A few basic principles can help sidestep those pitfalls that add to marketing stress.

Rather than getting into a *Price is Right*-type of guessing game, Brian Wittal urges farmers to break down their unit costs, determine their profit price, and execute sales when that profit opportunity comes along. Wittal, who offers market planning and marketing advice through his company Pro Com Marketing, says one of his greatest challenges is altering the mindset of his farm clients, many of whom are convinced the minute they sell, the market's going to go up.

Among the most common pitfalls is a reluctance to sell on rallies, says David Drozd, president and senior market analyst for Ag-Chieve. Often as a market rises, news coverage is bullish, sometimes overly so, which creates the false impression prices will only keep climbing.

Another misstep Drozd and Wittal see is selling too much of the crop at a certain position in the market when people think the top has been reached. It can be agonizing to watch the market climb higher if you've got nothing left to sell.

Twila Miller, who farms at Lipton, SK with her husband Collin, says all farmers are bulls in the market, but she stresses the importance of a well-rounded vision when marketing.

"Many times we don't want to sell on a down and never sell enough on an up, but each person has a different tolerance," says Miller, who takes care of the farm books and shares in the marketing decisions with her husband, who manages the farm's day-to-day activities.

Given the unpredictability of markets, farmers can use futures and options as tools to help mitigate their risk.

A farmer could perfectly pre-market all his grains at prices that turn out to be higher than the rest of the year, but still wind up in serious trouble if he loses his crop at harvest time. An early frost that knocks down the quality of pre-sold canola while futures prices double, say, would result in extreme buyouts on his contracts. Wittal tries to explain to his clients the reality of the physical risks of contracts with grain companies as opposed to the paper risks of options.

"Options and/or futures contracts eliminate delivery risk for them. It doesn't get their grain in the system, it doesn't give them cash for their grain if and when they need it, but it helps reduce the potential of delivery risk if they have a crop loss," says Wittal.

"We use futures and options to a point to help manage risk, but we also use a combination of other insurances to manage risk. Even using a revenuebased insurance is part of our plan," says Miller.

Market advisors

If a farmer wants to use options and futures for the first time, who can he go to? Some grain companies – but not all – offer different contracts that include a blend of an option contract attached to their delivery contract. There are courses and seminars available, and brokers with whom one can set up an account. Neophytes are advised against going it alone and jumping into online transactions.

"If you don't understand it, you can be throwing money away quite quickly if you employ the wrong strategy at the wrong time," says Wittal.

Markets are intricate and constantly changing, and opportunities can be quickly lost if you're not on top of them. That's where farm advisors come in.

"There are farmers out there who are certainly quite capable of doing the marketing on their own. But even they find it advantageous to work with a grain marketing advisory firm to use as a sounding board, or to use just before they actually pull the trigger," says Drozd.

Advisors like him realize they need to tailor-make their advice as all farmers have their own breakeven points and targets. "That can vary so much across the three Prairie provinces. It [can also] depend on whether it's a young farm family getting going or a farmer who is five years from retiring," says Drozd.



Although some farmers might question the need to pay for advice, advisors feel it's no different than getting charged for legal help, or expertise in agronomy, accounting and farm equipment repair.

Brenda Tjaden Lepp, co-founder and chief analyst of FarmLink Marketing Solutions, says, "At the end of the day, everybody's going to charge you something for advice in marketing. That's because it takes a lot of time to get our views together, to do the research, and we take a certain amount of risk in putting out formal recommendations and holding a certain view of the market."

"My job at the end of the research and analysis process is to advise our clients whether to sell today or wait, and why or why not. To a grain elevator, every day is a good day for a farmer to sell grain – their business goal is to maximize their handling of grain," says Tjaden Lepp.

Given that the quality of services and advice varies among advisors, farmers need to ask questions before signing on. What are your needs and wants – a newsletter, emailed trading advice and/or marketing strategies, or everything taken off your desk? Know the factors an analyst considers, how he or she formulates decisions, and how that compares to your own decision-making process.

"You need to trust your source and be willing to get help. Many farms have so many things going on, it is hard to have one person focus on everything 100 percent," says Miller, who explains that working together with others is important on their farm.

Farmers, she says, can struggle with asking for help, but she believes doing so can make them more efficient and better decision-makers: "Most farms nowadays have accepted the agronomist advisory service, and now it is time for marketing advisory to come into play. It is just as important to manage the farm."

Richard Kamchen is a freelance writer based in Winnipeg.





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Grain marketing doesn't always turn out the way you hoped. (Understatement of the year?) These four canola growers share their biggest marketing mistakes and, more importantly, what they learned from them.

By Jay Whetter

Turn negatives into positives



Kendra Mueller

Kendra Mueller

Humboldt, SK

Kendra Mueller still thinks often about a mistake they made a number of years ago. She and her husband, who share in the marketing decisions, had sold futures to offset canola inventory. "When we sold the canola, the right thing to do would have been to get out of the futures contract. But it didn't get done and we became pure speculators," Mueller says. The market moved against them and they held on expecting it to come back. It didn't. "When we finally exited, it was probably the worst time."

"We had a strategy, but human nature kicked in and the plan wasn't executed," she says. "Sometimes hard lessons are expensive."

After that experience, the Muellers developed a more detailed strategic plan

that matched their philosophy and took the emotion out of marketing decisions. Their goal is to move as much grain off the combine as possible, and use contract tools to hit rallies that may come through the year.

"We don't have a hold and store philosophy," Mueller says. "I don't like to worry about canola heating. It's a 100 percent loss if that happens."

They start pricing in January for the upcoming crop year and go into each fall with at least 25 to 30 percent of the crop priced. This year it was close to 50 percent.

"The grain companies offer new contract tools every year, and some of them are pretty attractive concepts. We try to keep up to speed on what's out there and make sure we understand how they can help us," Mueller says. "We ask 'What's in this for us?' and 'What's in this for the grain company?' and we make sure the tools we use satisfy our needs first."

The best way to learn about the new contract tools, Mueller says, is to attend the education seminars the grain companies offer. "We often learn more from the other growers in the room with us," she says. "Last time, we took our 17-year-old son. I was amazed at how fast he picked up on the concepts." The Muellers also subscribe to a couple of marketing newsletters and "read, read, read."

"The grain companies offer new contract tools every year, and some of them are pretty attractive concepts. We try to keep up to speed on what's out there and make sure we understand how they can help us."

- Kendra Mueller



Edgar Scheurer

Edgar Scheurer

Dugald, MB

Edgar Scheurer says his most costly mistakes are when he holds on too long waiting for prices to improve. "The worst is when you have a price that covers cost of production plus a little profit and you don't sell. You expect it go up so you wait, but it goes the other way instead."

Scheurer has noticed the past few years that prices are often highest in the fall. "I wish I could count on this being a new trend, then we could make more money," he says. But unfortunately predicting the market remains as difficult as ever.

"I never carry crop over. I don't have the bin space and I don't like the risk of keeping canola into summer."

- Edgar Scheurer

Scheurer's response has been to use deferred delivery contracts to sell when prices represent a decent profit potential. "I don't want to get greedy and wait. I sell, and sometimes sell aggressively," he says. As of September, he was 50 percent presold on his 2014 crop with an opportunity to deliver soon after harvest. Lately, he's been selling a lot of his canola to the Viterra crush plant at Ste. Agathe, MB.

For the rest of his crop, he will sell incrementally throughout the year in 50- or 100-tonne batches. He sets target prices with delivery locations. That way, if they're trying to fill a train and his target is in the ballpark, they could offer him his target price to trigger delivery. Scheurer plans to be totally emptied out for each new crop year. "I never carry crop over. I don't have the bin space and I don't like the risk of keeping canola into summer."

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Matthew Jacobsen Arrowwood, AB

Matthew Jacobsen's worst marketing mistake was getting caught in a logistical mess where the elevator he contracted through couldn't take any deliveries for months. He had contracted his entire crop with this one company, and needed cash flow. "I was forced to sell at a lower cash price to another facility," he says.

"I was relying too much on one company," Jacobsen says. Now, he works through various companies - usually three - on a regular basis. He also doesn't give one all of his canola, and another all of his cereals. They all get a blend. "The companies I deal with know that I'm delivering to other locations. I'm open with them," he says.

He also pre-sells all crops – peas, wheat and canola. "If one commodity is not moving, another will be, so I can satisfy my cash needs," he says.

Jacobsen uses a blend of marketing techniques, including target pricing and average pricing. One company he deals with offers an average price based on futures movement over the year. For example, earlier this spring, he pre-sold a percentage of his 2014 canola for March 2015 delivery. The price will be

"Grain buyers send out texts with daily updates. I follow these closely and take advantage of opportunities to hit targets and get a few loads moving at harvest."

- Matthew Jacobsen

based on the average March 2015 canola futures for the year.

"I choose March or sometimes May futures so I can avoid the harvest pressures that tend to influence September or November futures more negatively," he says.

Finally, he will deliver right off the combine when narrow basis offers come along. "Grain buyers send out texts with daily updates. I follow these closely and take advantage of opportunities to hit targets and get a few loads moving at harvest," Jacobsen says.

Wayne Truman Redvers, SK

Until 2004, Wayne Truman's strategy had been to sell some canola using November futures so he could deliver right off the combine and not have to tie up bin space. But it froze hard in



Wayne Truman

mid-August that year, leaving his canola with high green and low quality that did not meet contract specifications. "I couldn't deliver. I had to buy back the contract at a much higher price than it was originally for," he says. "My strategy really backfired."

That year he realized it was impossible to make the best business decisions for the farm when he was forced to sell off the combine for bin space or cash flow reasons. "I didn't want to be in that vulnerable position again," he says. "So I increased my bin space to take the pressure off and give me more time to assess markets."

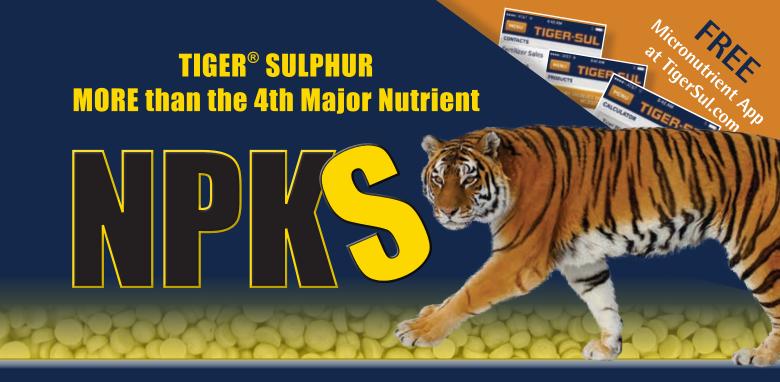
Truman always knows his cost of production so he can figure out a breakeven price. Then he'll sell in increments when prices meet his cost of production, plus some profit. He continually assesses markets, looking at geopolitical, weather and other influences, and is prepared to market 12 months of the year.

He also reminds himself that no two years are the same. "Just because a strategy works one year doesn't mean it will be successful again." He gives 2013-14 as an example, when October and November were some of the best months to sell. Basis then widened and widened through the winter with the transportation bottlenecks, and then by June it had done another complete reversal.

"If bin space or cash reasons forced me to sell in those winter months with the wide basis, I would have got killed," he says.

Jay Whetter is the editor of Canola Digest.





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onsumers are confused.

They're bombarded with information regarding the health, safety and moral aspects of what they eat on a daily basis. Messages hit them in various mediums at almost every minute of their day on a sliding scale of both truth and resonance.

Growers are perhaps one of the best-equipped links in the value chain to connect with consumers on hot topics. Growers know why they choose the crops and varieties they seed, they know how they use pesticides and why, and most importantly, they have personal experiences to pull from when talking to others about their business decisions.

There is no shortage of resources for people wanting to become bigger "agvocates", but since this is not a one-size-fits-all business, we reached out to a few people in the industry and asked them how they're engaging the public when questions arise.

Sarah Schultz

Nurse; Farm-wife; Blogger, www.nurselovesfarmer.com

Who do you most often find yourself engaging with in hot topic conversations?

Mostly parents of young children. Since my blog covers all things parenting, photography, family life, recipes and agriculture, I have a pretty diverse readership.

How do you approach these topics?

I don't get a lot of questions, I get a lot of statements. Some are supportive, others are disgusted I would write about GMOs. My mantra for responding to negative statements is "kill them with kindness". I am aware that everyone can see what I write and I want to respond in a way that not only makes me proud of the person I am, but that will also make my family, friends and especially (one day) my children proud. You catch more flies with honey than vinegar, so

I don't respond back by being emotional, I respond back by being logical and as kind as possible.

How do people respond?

The activist-types that leave the worst blog responses won't have their minds changed. They come to ruffle feathers. I had a local activist report me to my professional nursing licensing body to try to get me fired. A true act of desperation! The good far outweighs the bad and I always have to keep in mind that the majority of people reading my blog don't comment, so I hope to share agricultural practices and dispel myths for them.

What tips do you have for growers who want to engage with people around them?

No one tells your story better than you do and it's important to listen and address others' concerns calmly, positively, and to be accurate and accountable for what you say.





Michele Payn-Knoper

Founder, Cause Matters, #AgChat and #FoodChat; Author, No More Food Fights: Growing a Productive Farm & Food Conversation

Who do you most often find yourself engaging with in these types of conversations?

Everyone from school children to dieticians to media.

How do you approach these topics, conversations and statements?

Usually I will answer questions by asking a question, particularly if the person has a concern. Step back, find a way to engage with the person positively, such as sharing a mom story and find out what's important to them. If you can identify a person's point of passion, you can go a long way in connecting with them on a personal level. That connection develops trust and allows you to go deeper in the conversation



Michele Payn-Knoper

and better understand their perspective. Sharing your farm story is not about educating; it is about relating in a meaningful way to the person you're speaking with. Only when you have earned their trust will you have the right to "educate" them.

How do people respond?

When ag folks take the time to relate to people as humans, it's usually very favourable. Again, it's about knowing their point of passion and translating agriculture to that. Dieticians are glad to learn the science in how food is produced. Elected officials appreciate understanding the economic impact farms make on a community. A mom is happy to connect with another parent and learn what farming means to your family. The best reaction is when you see someone's eyes light up and they say, "I didn't know what I didn't know."

What tips do you have for growers who want to engage with people around them?

I always encourage growers to find a target audience they are comfortable relating to; some are great with elected officials, others will be best in the classroom. It is an individual choice. Please don't data dump on them, start with science or talk about the economic impact at the beginning of a conversation. We work in a novel profession; one in which a very small percentage of the population operates. Don't expect them to understand if you haven't taken the time to explain agriculture.

Johanne Ross

Executive Director, Agriculture in the Classroom Manitoba; Chair, Agriculture in the Classroom Canada

Who do you most often find yourself engaging with in these types of conversations?

Agriculture in the Classroom (AITC) works with kids from kindergarten to grade 12, which means we have a wide variety of conversations with varying levels of detail and messaging.

How do you approach these topics and conversations?

Around grade 6, students begin asking hot topic agriculture questions and are increasingly interested in where their food comes from and whether or not it's safe.



Johanne Ross

Everything AITC develops for school use is tied to classroom curriculum links and hands-on activities are often the easiest way to share information. A lot of kids think GM food has chemicals in it so when we're talking about GM, we do a simple DNA extraction. We talk about what DNA actually is, how we're not necessarily changing DNA but that we're trying to get a more favourable trait into a plant, how there are regulations around this, that it takes at least 10 years for something to go to market and get

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approved before it goes into production. It's important to give kids the whole process so that it's less scary. That way they see it's totally scientific, regulated and safe.

But, these science-based lessons aren't the whole picture. We want kids to connect on an emotional level to agriculture and that's why we bring farmers into the classroom to share their stories, make that human connection and to show that we as an industry share all the same values that they have as well.

What tips do you have for growers who want to engage with people around them?

Growers can be humble and of course are very busy, but it's so important that they step out as the faces of agriculture, the faces of their farms, and share their personal and family stories so that kids don't just think about farms as corporations. If farmers don't tell their own accurate stories, others will be happy to and they may not present our industry in a true and positive light.

Rick Wiebe

Marketing Manager, Specialty Seeds and Oils, Cargill

What types of audiences are you interacting with most often?

Purchasing and R&D staff from end-use oils customers and growers from Western Canada.

What are the top questions you're asked?

Is this oil produced sustainably? Tell us about how the canola is produced and manufactured back to the farm level (from trait discovery and on)? Is our canola oil GMO? Why? Can we trace the oil back to the farm? Essentially, oils customers want to know the story of where the oil comes from and sometimes want help in telling that story to their stakeholders.

How do you respond?

Since we're involved in the entire supply chain from breeding right through to finished oil, we have been very effective in being transparent about how our high oleic canola oil supply chain operates. The past couple summers we have been fortunate to bring a number of our important food ingredient and food service customers from North America out to Western Canada to directly connect with where their oil comes from.

How do people respond? What has been the best/worst reaction?

After they meet with our plant breeders, see our processing facilities and especially meet with our growers, this really increases their confidence in how the oil is produced and helps them tell the story to their stakeholders.

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Meeting with growers is always the highlight of the trip for them as they directly interact with the growers and learn how they care for the land to produce high quality crops. Also, hearing it directly from the grower helps them better understand a wide range of issues including sustainability and GMOs.

What tips do you have for growers who want to engage with people around them?

Be proud, be engaged, and tell their story. It's a natural fit for what end use customers and consumers are looking for from the food supply chain today. When they talk about it, they should engage factually and passionately.

Simone Demers Collins

Education, marketing and promotion with Alberta Canola Producers Commission

What are the top questions you're asked when working a trade show booth?

We often get the comment that canola changed its name from rapeseed because it was not socially appropriate. While not a question, this comment does allow us to share the history of canola in Canada. Common questions are: How does canola oil compare to olive oil? Is all canola oil GMO? How does canola oil compare to ____, with the blank filled in by whichever other

"FROM THE FIELD" VIDEOS

Manitoba Canola Growers Association has produced "My Be Well Story" videos of canola growers talking about their farms, their practices and why they do what they do. See them here: www.canolaeatwell.com/from-the-field-2/





Simone Demers Collins

oil has been doing a lot of advertising in their area. Camelina oil was very involved in Stampede, so a comparison of the two was essential for our staff answering questions. Why does canola oil have to be imported from Canada? Can you explain the use of hexane extraction in canola oil processing? I hear that canola oil is bleached. Is that true?

How do you answer the question about bleaching?

All vegetable oils may be bleached. The term refers to passing the oil through earth clay - a 100% naturally occurring, quarry mined-intergrowth of hormite and smectite minerals - to remove impurities as well as colour. For example, the Japanese prefer oil that is nearly clear, a true difference to what North Americans recognize as vegetable oil. Earth clay will allow oil that might be greenish (as you often get with cold-pressed oil) or vellow (as we in Canada know vegetable oils) to have most of the colour removed to meet the Japanese specifications. The industry refers to this as bleaching, but it is not at all related to the bleaching products that remove stains from clothes.

What tips do you have for growers who want to engage with people around them?

Know your subject. Yes you farm, but what statements can you make about biotech, GMOs, pesticide and herbicide use? Why do you do what you do? Be aware of the words you use. Use common words, not industry specific words. Be aware of regulations, such as Health Canada and Environment Canada regulations, and of who approves and guarantees the safety of the products you use.

What is your organization's policy on engaging on these issues?

Listen for what a person is really asking. Are they concerned about the health of their family? The health of the environment? The future of farming? The more you know, the more focused your answers can be, and the better you can meet the questioner's needs. Respond calmly. Our directors can weather snowstorms in early September, late seeding, clubroot and major bug infestations with a clear mind and make good decisions accordingly. When faced with a challenging consumer, we encourage them to use the same clear thinking. Do not be flustered: Listen, evaluate, state the association position, and relate how this applies to your farming practices.

What shouldn't growers say?

Avoid saying anything accusatory, judgmental, or in anger. Don't use phrases like, "I don't care," "You're wrong," or "I know better."

Anything else you'd like to add?

Farmers still have a strong personal resonance with consumers and with media, but they must be willing to try to answer questions. If they don't know the answer, they need to make a personal commitment to seek it out and respond. While staff can and will often be able to answer the questions, a response directly from the farmer will do much to increase the credibility of the industry.

Crystal Klippenstein is a communications program manager at the Canola Council of Canada.



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An inside look at how Canola Council of Canada staff assess future market opportunities – and why building additional markets is important.

By Treena Hein

Beyond the big four



ecause of its reputation for excellent quality and reliable, consistent and sustainable supply, Canada's canola industry already has four well-established export markets that receive many tonnes of canola products each year. At this point in time, about 90 percent of Canadian canola exports go to the U.S., China, Japan and Mexico.

"These four markets are very valuable and important for Canada's canola industry and will remain so in the future, but there is also a need for the industry to look at emerging opportunities in other markets," says Samara Hutton, market access program manager at the Canola Council of Canada (CCC).

"Global demand for Canadian canola is expected to be 26 million tonnes by 2025, so our industry needs to ensure Canadian canola will continue to hold an important place on the world stage by having more strong markets in place," says Hutton. "Indeed, the development of new markets is part of the CCC's 'Keep It Coming' strategic plan."

Developing secondary markets, she adds, is also very important in that it

diversifies the industry against risks, such as the possibility that trade barriers might arise for whatever reason in any of our four key markets.

The Canadian canola industry has a goal to increase exports into secondary markets so that they represent 20 percent of demand by 2025. Secondary markets where we already export canola and which have the potential for growth include South Korea, Taiwan and Thailand.

But just how does the CCC assess these and other market opportunities for further development? Which factors are most important, and how is what we have learned in building our four large key markets applied to building new markets?

The first step in the process for each market, Hutton says, is to do a market assessment.

"Assessment of a market that presents a good possibility for larger export opportunities begins with a lot of research," Hutton says. "We aim for a full understanding of each market and the customer requirements that exist within it. This means looking for definite indications

that a market presents a growing demand potential for canola oil, meal or seed, or any combination of those."

One of the factors to consider in determining future demand potential is market size. In the case of oil, it's important to look at current human population size and growth trends over recent years as well as population projections. In a meal market, the same information is considered but in relation to the livestock industry. "We need to know how much oil or meal is consumed in the market, whether it comes from domestic sources or from import, and whether there is the opportunity to expand canola imports," Hutton explains.

Demographics are also researched – income levels, education levels, health awareness/concerns, age of population and so on. Psychographic information is gathered as well, consisting of consumer trends and demands relating to health, nutrition and cooking. The information helps the CCC better understand consumer behaviours that would drive demand for canola products.

The market's business and trade environment is also analyzed carefully. "We need to consider our ability to conduct business and whether there are trade barriers that would prevent Canada's canola industry from capitalizing on market opportunities," Hutton notes. "It's also important to understand whether the domestic industry in the market is set up as a seed market or a market for processed oil and meal products."

Once the market assessment is complete, a targeted approach to canola oil or meal promotion activities can be developed. This involves differentiating and demonstrating the quality characteristics of canola seed, oil and meal to meet new and existing customer requirements at a competitive price.

Past experience

A relatively short time ago, Canadian canola exports to China and Mexico were much smaller and less reliable than they are today. The CCC's hard work to open market access in these countries and create more consistent demand for canola products has provided valuable lessons

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for development of secondary markets now and in the future.

After market assessments in China and Mexico were complete, the CCC engaged in promotional opportunities that led to strong export success. For example, the CCC has run a CanolaInfo oil promotion program in Mexico for quite some time, and began implementing a similar program in China in 2014 to generate awareness of the benefits of canola oil. Dairy feeding trials in China have increased awareness of the benefits of canola meal within the Chinese dairy sector. Ongoing market access efforts are also essential, Hutton says. For example, by responding to recent concerns about blackleg disease in China, the CCC maintained access to \$1.8 billion in annual canola seed trade.

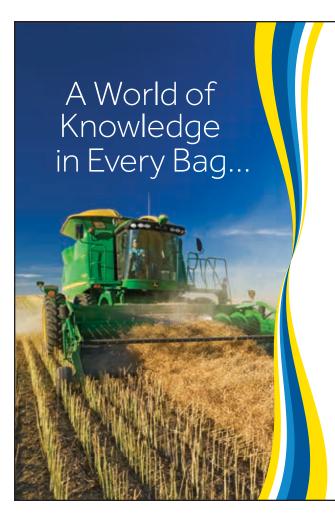
"With the canola industry's strategic plan setting the target for secondary markets to make up 20 percent of canola industry exports in 2025, we need to determine the best opportunities. This all begins with understanding each market and using what we have learned in the past to capitalize on those opportunities."

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KEEP IT COMING

"While we don't expect the secondary markets we're examining now to overtake our key markets, there certainly is potential for them to substantially grow beyond the size they are today," Hutton asserts. "With the canola industry's strategic plan setting the target for secondary markets to make up 20 percent of canola industry exports in 2025, we need to determine the best opportunities. This all begins with understanding each market and using what we have learned in the past to capitalize on those opportunities." •

Treena Hein is an award-winning science writer based in Eastern Ontario.



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The Canola Council of Canada works to help Canada's canola industry take advantage of growing demand for healthier oils, and to protect market access for canola products.

By Treena Hein

Demand grows for healthier oils

ocus, dedication, strategic planning – these are among the most important requirements to expand existing markets and protect market access for any product. Canola is no exception. Canola stands strong and is poised to grow stronger, even while competition among oils is becoming more intense. This is thanks to excellence among growers and industry, and years of hard work by the Canola Council of Canada (CCC).

Global demand for Canadian canola is expected to be 26 million tonnes by 2025. "As the world's middle class continues to grow and living standards continue to rise, the demand for betterquality food such as healthier oils is growing," says Bruce Jowett, CCC's vice president of market development. "This means excellent opportunities for canola oil, which offers health benefits equal or superior to any other oil on the market."

Global demand for more protein in the human diet is also growing, Jowett notes. A large amount of science-based evidence is now available to support expanded use of canola meal in a number of different livestock species. Differentiating and demonstrating the quality characteristics of canola seed, oil and meal to meet customer requirements (at a competitive price) is one of the objectives of CCC's "Keep it Coming" strategic plan.

"Achieving 26 million tonnes of global canola demand boils down to three

things," Jowett says. "We must increase penetration in our established markets with greater focus on segmentation, develop secondary markets, and ensure all our markets stay open by working with governments on beneficial trade agreements and science-based solutions to possible trade barriers."

1. Expand existing markets

Increasing the volume of exports to Canada's four main export markets includes a strong focus on segmentation. This means promoting the value of canola as a healthy oil in the human diet, and meal as a superior animal and fish feed ingredient. It also means determining opportunities for biofuel and new bioproducts.

"We want to promote all possible options in the canola value chain," Jowett explains. "A large part of this effort has included the CanolaInfo program, which operates very successfully to promote canola oil in Canada, the U.S., Mexico, India and now China."

The dairy and aquaculture industries are also recognizing the value of canola meal, Jowett says. "We are making inroads with other species as well."

The CCC expects canola meal demand from U.S. dairy and other livestock farmers to increase. Mexico has potential in these areas as well. "The dairy industry in China is also looking for better protein sources for dairy cows," he notes, "and as



Bruce Jowett

more fish is consumed in Asia through aquaculture, that industry will have an increased need for quality protein feed ingredients. Canola can deliver." Examples of canola meal promotion work include the Canolamazing calculator and dairy feeding trials.

2. The second wave

Expanding secondary markets means detailed research and the development of a targeted approach to align canola's functional attributes with customer



requirements in each country. The Canadian canola industry has a goal of increasing secondary markets to represent 20 percent of demand by 2025. (See the article *Beyond the Big Four* in this issue for more on secondary market development.)

3. Creating a competitive, stable and open trade environment

Ensuring markets stay open requires a proactive approach and thorough preparation to prevent trade barriers or respond in case they arise. Jowett says key tactics include promoting science-based, risk-appropriate solutions. "Part of this is also the pursuit of trade policy initiatives that promote reliable,

competitive and open market access," he explains.

"Through our constant outreach efforts, the government of Canada understands our industry and is a strong supporter. We are also involved with federal officials in various global trade advocacy and trade missions addressing tariffs, innovation and biotechnology," says Jowett.

Jowett points to success in restoring market access into China after they closed their border to canola seed over blackleg concerns in 2009. Exports had dropped dramatically. The Canadian canola industry and government worked together to build understanding and implement provisional measures

mitigating the potential risk. As a result, more than 2.9 million tonnes of canola seed valued at more than \$1.8 billion was exported to China by 2012.

The CCC will continue to build worldwide understanding and recognition of the superior properties of Canadian canola oil and the excellent protein in canola meal. "This will result in continued increases in exports of canola," Jowett says. "We will also continue to develop trade environments free of tariffs on canola, free of trade disruption and that include a process for resolving trade disputes."

Treena Hein is an award-winning science writer based in Eastern Ontario.







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The Canada-Korea Free Trade Agreement means Canadian canola exports will be able to enter South Korea without tariffs, putting them on equal footing with other oilseeds.

By Brian Innes

Canola to head to Korea tariff free

anadian canola will soon have tariff-free access to South Korea thanks to the conclusion of the Canada-Korea Free Trade Agreement. It means Korea won't tax canola at a higher rate than other oilseeds – making canola more competitive. Exporters will soon be able to get more value for canola, translating into more value at the farm gate.

"We've been engaged with these negotiations since they began in 2005," says Patti Miller, president of the Canola Council of Canada (CCC). "It's very satisfying to see that our government achieved such a good outcome for canola."

Under the terms of the agreement, canola seed tariffs will be eliminated immediately when the agreement takes effect; crude canola oil tariffs will be eliminated over seven years; and refined oil tariffs will be eliminated over three years.

"One of our key objectives was to ensure that we achieved an outcome that put Canadian agriculture on a level playing field with competitive exporters," says Denis Landreville, lead agriculture negotiator for the Canada-Korea Free Trade Agreement, Agriculture and Agri-food Canada (AAFC). "Canola is a good example of how we achieved this."

The agreement, first announced in March 2014, was signed on September 22 in the presence of Prime Minister Stephen Harper and Korean President Park Geun-hye.

Once the agreement takes effect, which is expected in early 2015, canola will be a much more competitive option for Korean importers. Tariffs have artificially inflated the cost of seed by five percent and oil tariffs have fluctuated significantly in recent years.

"Korean crushers consistently import about one million tonnes of oilseeds. The tariffs applied to canola have made it uncompetitive...Getting rid of the tariffs will mean additional demand for canola seed exports."

- George Powell

This has made it difficult for exporters to profitably sell into this market.

"Korean crushers consistently import about one million tonnes of oilseeds," explains canola exporter George Powell of Parrish and Heimbecker. "The tariffs applied to canola have made it uncompetitive. There has been interest in importing more canola, until the tariffs are factored in. Getting rid of the tariffs will mean additional demand for canola seed exports."

South Korea, with a population of 50 million people, is the world's 15th-largest economy and the fourth-largest in Asia. In recent years, South Korea has imported Canadian canola seed and oil valued at \$60 to 90 million annually. With the agreement, export opportunities for both seed and oil are expected to increase.

"We expect to significantly increase our export sales to Korea," says Miller, estimating that imports could double

UPDATE:

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CANADA-EUROPE COMPREHENSIVE ECONOMIC AND TRADE AGREEMENT

On September 24, 2014 Prime Minister Harper and José Manuel Barroso, president of the European Commission, signed a formal declaration marking the end of negotiations for the Canada-Europe Comprehensive Economic and Trade Agreement (CETA). Key elements of the agreement for canola include the elimination of oil tariffs and provisions to reduce biotechnology-related non-tariff barriers. A biotechnology working group will be tasked under the CETA to address the timeliness of approvals for genetically engineered products, science-based policy and development of low level presence policy. The agreement is expected to be implemented in early 2016.



under the new trade agreement. "Increased market access is good for the whole value chain."

Miller explains that eliminating tariffs is important to achieve the targets set out in the industry's strategic plan, Keep it Coming. One priority of the strategic plan is to establish stable and open trade. Eliminating tariffs through trade agreements opens markets for exporters that were previously unavailable. The completion of the Canada-Korea Free Trade Agreement is an important milestone to achieve stable and open trade across all markets - providing opportunity to capture more value from our canola exports. •

Brian Innes is vice president, government relations with the Canola Council of Canada in Ottawa.

UPDATE:

TRANS PACIFIC PARTNERSHIP **NEGOTIATIONS**

Negotiations continue among the 12 member countries: Canada, the U.S., Japan, Vietnam, Malaysia, New Zealand, Australia, Singapore, Brunei, Mexico, Chile and Peru. The last formal round of negotiations was in August 2013, though meetings of chief negotiators and government officials have occurred regularly on a number of details that have yet to be agreed to. Opportunities for canola in the negotiations include eliminating Japanese tariffs on oil and achieving a broad-based agreement on preventing biotechnology-related barriers to trade. •

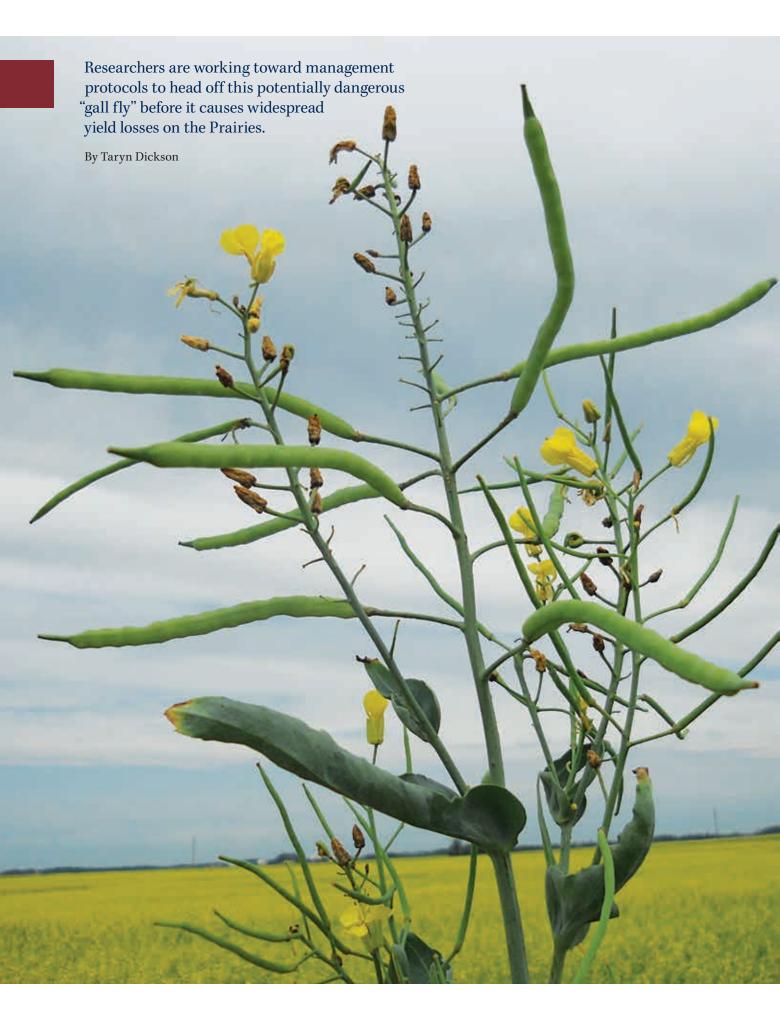
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Swede midge moves in



ou may have read that swede midge is the next big insect pest in canola, or that swede midge isn't much of an issue. So what's the real story? Julie Soroka, entomology research scientist with Agriculture and Agri-Food Canada (AAFC) in Saskatoon, says, "Growers on the Prairies should be aware and vigilant."

Ontario farmers, who have suffered up to 85 percent crop losses to swede midge, know the potential of this little pest. "It heavily infested nearly all Ontario's cruciferous crops in the early 2000s and caused about 50 percent yield losses in the Temiskaming region last year," says Rebecca Hallett, entomology researcher and professor from the University of Guelph.

Swede midge hit Ontario hard not only because it is a short-lived, multigenerational insect with inconspicuous eating habits, but also because the damage symptoms are easily mistaken for heat or cold stress, fertility issues, mechanical damage, or other insect feeding. The midge produces three to five generations per growing season in Ontario, and they overlap in their emergence so that all stages can be found at the same time. Host plants are rarely or never free from attack. Overwintered midges also emerge in at least two peaks, separated by one to two weeks. "They don't have a flush emergence. Some emerge a little later, like an insurance for the species, in case conditions were to change and the first cohort didn't survive," Soroka says.

"The pest is being managed in Ontario, but it requires numerous – and therefore costly – insecticide applications timed according to pest emergence," says Hallett. Emergence is determined by trap counts, which are monitored at least two to three times per week.

Since June 2000, when the first North American swede midge was identified in

Above: Swede midge adults are very small (less than 2 mm) and surprisingly weak fliers. Females will lay up to two batches of two to 50 very small eggs in canola plants.

Ontario, the insect has made its way into Quebec, and more recently Nova Scotia, PEI, Manitoba and Saskatchewan.

"The insect could potentially become established in any province, under preferential conditions," says Hallett. "These required conditions, more specifically, are high moisture to allow the transition from the pupal stage to adult emergence. Warm temperatures during the growing season are also necessary, but due to its Scandinavian origins, cold winter temperatures aren't a limiting factor."

Although swede midge can survive a Canadian winter, the insect is very small (less than 2mm) and a surprisingly weak flier. But its delicate body can work to its advantage as well. "They are light enough to be carried short distances by the wind and small enough to hide easily," Hallett says.

continued pn page 40

Facing page: Swede midge larvae that emerge later can cause fused (vase-like) petals and flowers that don't open, as is the case with these abnormal pods and flowers. Damage at earlier stages, which would be more common in later-seeded crops, will be much more costly.



Females will lay eggs in various locations, depending on when they emerge and the stage of the crop. These larvae are in a floret. Larvae grow to be 3 to 4 mm long and have an opaque lemon-yellow colour.

In addition, females will lay up to two batches of two to 50 very small eggs, which will hatch into tiny (~0.3mm) transparent larvae. At full size, larvae will be 3 to 4 mm long and an opaque lemon-yellow colour.

Identifying damage

The larval stage is the only stage when swede midge causes damage to canola. Larvae eat at the growing points (apical meristem) where plant nutrients move through. Eating the growing point prevents any plant recovery. (Even if you could get good spray efficacy at this stage, the damage is done.) Larvae also secrete salivary fluids onto the plant (which break down the cell walls), suck up the nutrients, and cause the plant to form a gall around them.

Instead of protecting the plant from predation, as a gall is supposed to do, it actually protects the larvae and makes them harder to reach with an insecticide. Once these galls form, larvae can comfortably eat the plant for seven to 21 days (through three instars) before dropping to the ground to pupate and, if under adequate conditions, emerge as an adult.

"Depending on the stage of the plant at the time of feeding, the larvae can cause crinkling of the leaves, fused (vase-like) petals and flowers that don't open in earlier emerging plants," explained Soroka. "Late emerging plants can have the terminal meristem affected,

preventing regular elongation of the raceme and causing a palm tree-like appearance. Damage to pre-bolting plants can prevent the main raceme from even forming."

Looking for damage can be a useful way to scout, but the best method is with pheromone traps. "These traps can be used for up to four weeks and will attract only males," Hallett says. "Setting up these traps on each of the four sides of the field would allow growers to determine if they have the pest or not, and what their populations look like."

Checking every two weeks is adequate to determine if swede midge is present in your location, but increased frequency is needed for management, Hallett says.

"We are working toward pheromonebased action thresholds for swede midge in canola. Early results suggest the thresholds will likely be similar to those for cabbage and broccoli (which is around five to 10 males per trap per day)," she says.

Swede midge management

The 2014 swede midge survey of the Prairies, run by Soroka's research team, gathered data from over 140 fields across the three provinces. While results are still in the preliminary stage, she says the pest is slowly spreading.

"Swede midge has been found in traps from Preeceville and near North Battleford in Saskatchewan, and from the Swan River Valley and Red River Valley in Manitoba. Damage is most readily seen close to field edges, especially near fields previously planted to canola, but damage doesn't usually span a whole field," she says.

So what can growers do about this new pest concern in 2015? Start with pheromone traps to see if you have it. Send in the samples to AAFC Saskatoon for identification. Soroka is happy to provide a series of traps in exchange for more data points in her survey. It can also be useful to learn more about the insect and scout fields for damage.

Spraying is not economical until you know the populations you are dealing with. Even then, timing your applications with the one to five day lifespan of the midge is not recommended without intensive monitoring and consultation.

As for crop management, planting early can ensure your crop is past the susceptible stage by the time the pest emerges. Maintaining proper fertility management always increases the plant's potential to withstand a pest. If swede midge is found in your field, crop rotation can help prevent populations from increasing rapidly.

Hallett is into her second year of a Canola Council of Canada (CCC) and Government of Canada Growing Forward 2 (GF2) funded project on the development of pest management decision-making protocols for swede midge in canola. Soroka is in her first year of another CCC and GF2 funded project on improving integrated crop management. AAFC Saskatoon is also researching biological control agents.

While these and other projects are being completed, Hallett says that if growers can keep the population low, it will be manageable and you will be much better off. "But if the population is allowed to increase dramatically, it could reach levels that are uncontrollable and cause serious yield losses to canola on the western Prairies."

Taryn Dickson is resource manager for the Canola Council of Canada's Crop Production and Innovation department.



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From the top of the cycle to the bottom, the road to canola success isn't black or gold. It's green, because ... Nothing Runs Like A Deere.







Here are two livestock feed consultants who use research to demonstrate to the feed industry how dairy, swine and poultry producers can use canola meal to improve their return on ration investment.

By Brittany Dyck

Taking research to the barns

he Canola Council of Canada (CCC) is dedicated to contributing sound research to the industries we support. That much is evident. But what happens to that research after it has been published? Who applies it to real-world situations?

Meet Dr. Essi Evans and Dr. Arnold Pierce. Both play pivotal roles in the animal feed industry in Canada, and constantly look to research to help them in their work.

Evans, president of Essi Evans
Technical Advisory Services, has a
Ph.D. in dairy cattle nutrition from the
University of Guelph, and 20 years
experience working for the largest feed
company in Canada, Shur-Gain. Evans
now uses her experience to provide
companies, associations and academic
institutions with technical and
managerial support for research and
development challenges in animal
nutrition.

While she isn't currently formulating livestock diets, Evans plays a huge role in making sure the feed industry is using accurate nutritional information, and

aids in bringing products to market that deliver what their nutritional profiles promise.

Evans has a particular passion for canola meal. She is integral to the execution of highly specialized research, as well as the distribution of this research to the livestock industry. For example, she played a crucial role in making sure the industry had access to the latest CCC-sponsored canola meal research. This led to an update of the canola meal nutrient profile in many software programs, and an increase in its inclusion in diets of dairy cows.

"When a dairy cattle nutritionist uses the provided parameters to formulate diets with canola meal, its value compared to other protein ingredients like soybean meal is much increased," Evans says.

Having the research to support updating canola meal's nutrient profile benefits not only the Canadian canola industry, but also the feed industry and the dairy producer. Canola meal is typically lower cost than its biggest competitor, soybean meal, so lower-cost



Dr. Arnold A. Pierce of Preferred Animal Nutrition Services Inc., has been a key part of the evolution of how we value modern day canola meal.

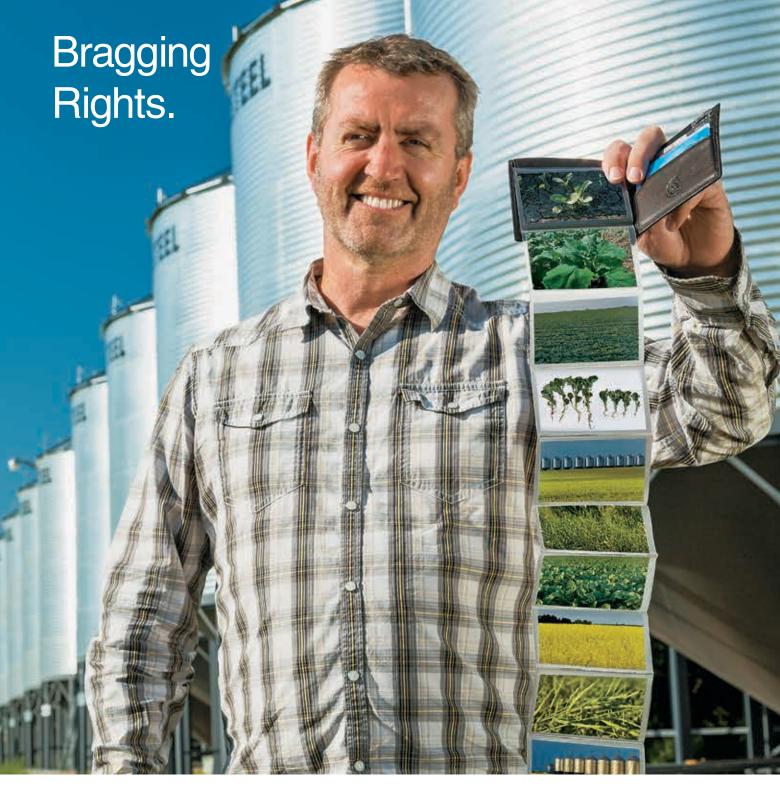
diets can be formulated and cows can produce more milk.

Canola meal value rises

Dr. Arnold A. Pierce of Preferred Animal Nutrition Services Inc. has made a habit of putting science into practice. Pierce has worked in the livestock feed industry for more than 25 years and has been the face of Preferred Animal Nutrition Services for 10 years. He spends his days advising the feed industry and government on a wide range of issues relating to livestock nutrition.

Some days, Pierce is formulating specialized diets for feed manufacturers

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TAKING RESEARCH TO THE BARNS

continued from page 45

in Alberta. Other days he does it for end users in Asia. He communicates with regulatory authorities about clearing new ingredients for use domestically, as well as helping livestock feed manufacturers here in Canada introduce ingredients around the world.

Pierce has been a key part of the evolution of how we value modern day canola meal. He has seen time and time again feeding trials demonstrating a milk yield advantage when canola meal is fed to lactating dairy cows. In 2013, researchers from Agriculture and Agri-Food Canada put this research together in one cohesive publication titled Feeding canola meal to dairy cows: A meta-analysis on lactational responses.

"We've been able to put decades of dairy research together and present it to the industry in one single publication," says Pierce. "The proof is there. Canadian canola meal is always top of mind when I'm advising the dairy industry on feeding decisions here in Canada and around the world."

Canola meal isn't just being fed to dairy cows, either. While it's a common ingredient for swine and poultry nutritionists here in Canada, its value is going up. Ten years ago, Pierce would not have advised using much more than five to eight percent canola meal in the diets of young pigs, based on the research available at that time. Recent research out of the University of Alberta and the University of Manitoba has demonstrated that canola meal can be effective in weaned-pig diets at levels up to 20 percent.

"Canadian canola meal is always top of mind when I'm advising the dairy industry on feeding decisions here in Canada and around the world."

- Dr. Arnold Pierce

So what's changed? Recent advancements in how we formulate diets as well as sound research on the true nutrient value of canola have changed the game.

"Canola meal provides much more value to the diets of pigs and chickens than we originally thought," explains



"Canola meal provides much more value to the diets of pigs and chickens than we originally thought. The data the feed industry has available now on canola meal indicates much more of this high-quality protein ingredient can be used."

- Dr. Arnold Pierce

Pierce. "The data the feed industry has available now on canola meal indicates much more of this high-quality protein ingredient can be used. A feed formulator's job is to provide a least-cost ration that allows the animals to produce to their fullest potential. Whenever you can replace high-cost protein alternatives with a suitable alternative, like canola meal, the farmer wins."

Both Evans and Pierce appreciate the research the CCC has supported, and use it daily to ensure livestock producers get the greatest value. In turn, so do Canadian canola growers. To view more canola meal research, visit www.canolamazing.com. •

Brittany Dyck is canola meal manager with the Canola Council of Canada.

Correction: We've referred to canola meal as being Canolamazing, but in the Canola Digest September 2014 issue, page 40, the dairy cows fed canola meal on David Jones's farm were a little too amazing. David's cows produce on average 80 pounds per day, not 80 litres! This also equates to nine 4L jugs of milk, not 20! My apologies for the misprint. Brittany Dyck

With high yields last year and high moisture in many areas this spring, nitrogen and sulphur deficiencies were a real risk on many fields in 2014 – including for this grower.

By Jay Whetter

Moisture induced deficiency

t looked like severe nutrient deficiency right off the hop. Cotyledons were yellow and dying off. First true leaves had severe cupping. The cups were so rigid, the leaves cracked when you tried to open them. As the crop plodded along, older leaves showed yellow chlorotic mottling while new leaf growth was abnormally dark green, and even purple in places.

The grower was gung-ho to top dress with nitrogen, but wanted to make sure he had a proper diagnosis. Smart guy.

He called a local independent agronomist. Her immediate thought was sulphur deficiency, given that cupping of top leaves is a common symptom. What had her second-guessing that diagnosis was the early stage these symptoms appeared. Sulphur deficiencies typically show up later in the season.

But there were a couple things going on in this field that likely contributed to early symptoms. First, yields had been fairly good in past years and the grower's application rates were not keeping up with crop removal. Second, the area had gone through a major wet spell after seeding.

Sulphur is highly susceptible to leaching. Heavy moisture will move sulphur lower in the soil profile and out of range for young canola roots. Heavy rains can also "drown" roots and make it impossible for them to take up nutrients – even if nutrients are present in ample quantities. Both situations were likely in this field.

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The agronomist then called Canola Council of Canada (CCC) agronomy specialist Clint Jurke for a second opinion. He asked about rotation and fertilizer rates. Half the crop was on wheat stubble, the other half was canola on canola stubble. Symptoms were slightly worse for canola on canola, but rotation didn't seem to be a major factor. The grower had applied 20 lb./ac. of sulphur at seeding, which should be adequate to meet crop needs – especially early in the season.

Jurke came to the field and looked at all possibilities – an important step in making a proper diagnosis. One other possibility he suggested was a variety specific response to stress. He had heard this particular variety may be prone to rigid cupping. If not that, then he said the only other likely problem was indeed a nutrient deficiency. He also suggested nitrogen was probably the bigger factor, given that many of these symptoms, such as yellowing of older leaves, were classic nitrogen deficiency symptoms. Plus, the grower's original nitrogen rate of 55 lb./ac. was pretty low for the area, and the wet conditions would have reduced available nitrogen even further.

The grower banked on a good return from the rate he chose, and the crop did recover nicely.

The independent agronomist knew of a couple other fields of this variety in the immediate area. She drove around and checked them to rule out the variety issue. They didn't have these symptoms, further reinforcing the nutrient diagnosis.

The grower held off until the six-leaf stage after the soil had dried up. Deficiency symptoms were still present, so he added a little sulphur to his nitrogen top-dress. He top-dressed with 36 lb./ac. of UAN and four lb./ac. of sulphur as 15-0-0-20, which provided barely enough sulphur to correct any deficiencies.

"The challenge in this case," Jurke says, "Is that once the soil dried up somewhat, the crop may have recovered on its own without any added nutrient. However, I actually suggested higher rates of top-dress nitrogen, perhaps as high as 50 lb./ac., given the low initial rates and the high risk for losses."

Not only had the moisture likely moved nutrients out of the upper soil profile, but with great moisture reserves and a return to favourable growing conditions, the grower's yield potential was now higher than when he seeded the crop.

The grower banked on a good return from the rate he chose, and the crop did recover nicely.

"The key steps in this case are that the grower was watching the crop, recognized a likely deficiency, called in a second opinion, waited for excess moisture factors to subside, then pulled the trigger on a nitrogen top-dress that very likely paid off given the clear deficiency symptoms and the yield potential," Jurke says.

"A few check strips would have provided a useful demonstration of the top dress benefit," he adds, "but the grower didn't leave any." •

Jay Whetter is the editor of Canola Digest.

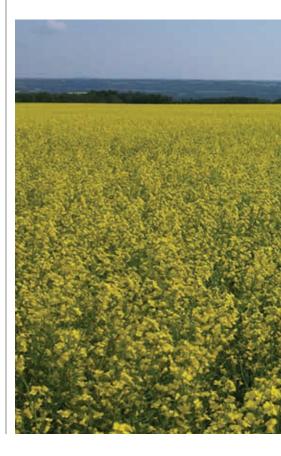
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Canola Watch is a free agronomy email sent out each week through the growing season and each month through the winter. It is timely, research based and unbiased. Canola management articles in the email are based on weekly conference calls with Canola Council of Canada agronomists, provincial canola specialists, and experts in weed, disease, insect and fertility management. You get all of that expert advise free, along with helpful photography and videos. Canola Watch is for growers, agronomists, retailers and anyone else with an interest. View archived articles and sign up at www.canolawatch.org. You can also follow @CanolaWatch on Twitter. •



Nitrogen

Nitrogen top dress is best applied before the five-leaf stage of the crop, which is just before plant uptake really takes off. Nitrogen options for in-crop application are urea (dry), UAN (liquid) or ammonium sulphate (if sulphur shortages are also expected).

Growers may need to top-dress up to 30 lb./ac. of actual nitrogen to see a noticeable improvement with the naked eye, but yield differences for rates lower than that may show up at harvest.

Broadcast spreading of urea or surface dribble banding of UAN are the most common and fastest methods, and ideally just before a rain. Surface applications can result in the highest losses if rain doesn't come quickly. Agrotain helps to minimize these losses.

Sulphur

A sulphur top-dress can be applied up to early flowering and still provide a yield benefit. Ammonium sulphate (dry) or ammonium thiosulphate (liquid) provides sulphur that is immediately available to the crop. It also provides a nitrogen top-up at the same time. A top dress rate of 10 to 20 lb./ac. of actual sulphur may be enough to provide an economic benefit, but higher levels may also provide a good return on investment if the soil is very deficient.

Elemental sulphur can work in a long-term program, but it should be applied in the fall so more of it is available to the crop. "Growers relying on elemental sulphur or an elemental blend, such as S15, applied in the spring should be scouting carefully for deficiency symptoms," says CCC agronomy specialist Clint Jurke.

For more on top dressing, go to the Canola Watch site at **www.canolawatch.org** and search for the article "Top up tips for nitrogen and sulphur." The Canola Encyclopedia at **www.canolacouncil.org/canola-encyclopedia** has a fertilizer management section with complete chapters on nitrogen and sulphur.

This is how the canola grower's field looked a couple weeks after the top dress.





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ABreport





You're invited to join us at a canola grower meeting in your area. Speakers will address a variety of topics including agronomy, marketing and farm management.

Pre-register for the meeting in your area and you could **win a three-day pass to the FarmTech 2015 Conference** in Edmonton. There will be a FarmTech pass awarded at every regional meeting.

For complete details and to register, visit **www.canola.ab.ca** and check your mailbox for the fall issue of Alberta Canola Connections. •

NOVEMBER	18	La Crete (Region 1) - La Crete Heritage Centre ACPC Director: Kelly McIntyre
	18	Lamont (Region 4) - Lamont Recreational Centre Hall ACPC Director: Daryl Tuck
	19	Stony Plain (Region 6) - Best Western Sunrise Inn & Suites ACPC Director: Renn Breitkreuz
	19	Camrose (Region 11) - Norsemen Inn ACPC Director: Jack Moser
	20	Westlock (Region 5) – Westlock & District Community Hall ACPC Director: Colin Felstad
	20	Paradise Valley (Region 10) - Paradise Valley Hall ACPC Director: Stuart Holmen
	25	Lethbridge (Region 9) – Coast Hotel & Conference Centre ACPC Director: Lee Markert
	26	Rycroft (Region 2) - Rycroft Ag Center ACPC Director: Greg Sears
	26	Rosebud (Region 8) - Rosebud Centre ACPC Director: Elaine Bellamy
	27	Falher (Region 3) - Knights of Columbus Hall ACPC Director: Raymond Blanchette
	27	Lacombe (Region 7) - Lacombe Memorial Centre ACPC Director: Terry Young
DEC.	2	Medicine Hat (Region 12) – Medicine Hat Lodge ACPC Director: Marlene Caskey in conjunction with the Farming Smarter Conference



ABreport

FarmTech 2015 Conference

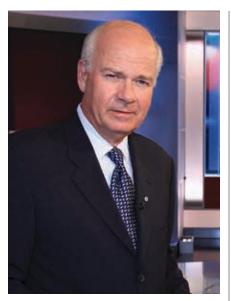
FarmTech, Canada's premier crop production and farm management conference, returns to the Edmonton Expo Centre at Northlands **January 27 to 29, 2015**.

The theme for FarmTech is "Global Perspectives...Local Knowledge" and this year's amazing line-up of speakers will deliver over 65 concurrent sessions focused on the latest in technology, environment, agronomy and management.

The FarmTech Conference is hosted by the Alberta Canola Producers Commission, the Alberta Pulse Growers, the Alberta Barley Commission, the Alberta Wheat Commission and the Alberta Seed Growers Association.

For more information on the FarmTech Conference visit

www.farmtechconference.com or follow @farmtechevent on Twitter. •



Keynote Speaker: Peter Mansbridge, chief correspondent for CBC News and anchor of The National.



An evening of improv comedy with Colin Mochrie at the FarmTech banquet.

The Alberta Canola Producers 25th Annual General Meeting will be held during FarmTech at the Edmonton EXPO Centre on Tuesday, January 27, 2015 at 2:45 p.m. Canola growers may attend the AGM without registering for FarmTech. ●

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- Weekly Feed Grain Price Report





Welcome to Alberta, Justine!

The Alberta Canola Producers are pleased to introduce Justine Cornelson, the newest Canola Council of Canada agronomist, who will be covering the Southern Alberta region.

Justine is re-locating to Alberta from Manitoba where she spent the past summer working as a summer student with the CCC Agronomy Team. Justine enjoys riding horses, training colts, rodeos, barrel racing and roping.

Justine will be filling in for Autumn Barnes who will be on maternity leave for the next year. Congratulations to Autumn and her husband Tom who are expecting their first child in November.



ACPC produces a weekly podcast called "Growing withCanola." To subscribe, search iTunes or Soundcloud for "Alberta Canola."

SKreport



CropSphere 2015

SaskCanola has been working with other commodity groups to present Saskatchewan farmers with a world class conference in Saskatoon January 13 to 14, 2015. We are very excited to be partnering for a second year with the Saskatchewan Pulse Growers, Saskatchewan Oat Development Commission, SaskFlax, Saskatchewan Wheat Development Commission and the Saskatchewan Barley Commission.

The conference will open on the evening of Monday, January 12, with a networking reception and entertainment. Plenary sessions will cover issues that affect all farmers with regards to grain transportation, market fundamentals, Canadian politics, industry advocacy and generational differences.

For more targeted information sessions, a series of breakout sessions are strategically placed throughout the conference agenda.



There will be a number of concurrent sessions that focus on agronomy and production challenges, market outlooks and general agricultural issues. We look forward to hearing engaging speakers and sharing networking opportunities throughout the conference.

Online conference registration opened October 1, 2014, so take advantage of the discounted rate. Conference rates at downtown hotels will be in effect until mid-December. There will be shuttle service for the partner hotels, as well as for Prairieland Park, which will host the Crop Production Show. Please visit **www.cropsphere.com** to register, book your hotels, and check out full program details.

Tickets for the CropSphere Banquet on Tuesday, January 13 are limited, so book early to ensure you don't miss out. Rick Hansen will be the keynote speaker for the banquet at CropSphere 2015. His talk will inspire our industry to take on all challenges with team spirit and teach us that anything is possible if everyone rises to be the best they can be.

CropSphere offers many opportunities for producers to network with each other, industry professionals, government and researchers. The purpose of this event is to bring the agriculture industry in Saskatchewan together for the sharing of ideas, innovation, and knowledge!

Please continue to visit **www.cropsphere.com** for more details on the conference and follow **@cropsphere** on twitter for up to date information. •



Agribition Grain Expo

November 25-26, 2014 Queensbury Salon, Regina, SK

CropSphere

January 13-14, 2015

TCU Place, Saskatoon, SK

including

SaskCanola AGM

January 14, 2015

(See more on the AGM below.)

Regional Producer Meetings

Plan to attend one of SaskCanola's
Producer Meetings to get the latest
crop production information.
We are still working on finalizing dates
and locations for producer meetings.
Please visit www.saskcanola.com
for the latest program details and
pre-registration information.

SaskCanola AGM at CropSphere

The Saskatchewan Canola Development Commission's Annual General Meeting (AGM) will be held during CropSphere at TCU Place on Wednesday, January 14, 2015, at 11:00 am. Canola growers may attend the AGM without registering for CropSphere.

SaskCanola's call for nominations was open from August 7 until October 1, with four director positions available. Please stay tuned to the SaskCanola website www.saskcanola.com for more information on the 2014 SaskCanola Election. New directors will be officially announced as part of the SaskCanola Board of Directors at SaskCanola's AGM.





Cleavers have increased in relative abundance in weed surveys.

Management of cleavers in canola

SaskCanola supports research to help growers manage cleavers in canola.

Cleavers is one of the most problematic weeds in canola crops across the Prairies. Cleaver seeds are a similar size and shape to canola, which makes them difficult to eliminate as a seed contaminant.

"Cleavers has increased in relative abundance in weed surveys, ranking down at number 25 or 30 in the 1980s to become the number three most abundant weed species in Alberta in 2010 and number nine most abundant across the Prairies," explains Dr. Christian Willenborg, Assistant Professor in the Department of Plant Sciences at the University of Saskatchewan.

"We were interested in finding out what is causing this increase in abundance of cleavers and whether we could find ways to improve herbicide control options to manage cleavers in canola crops," Willenborg says.

A three-year research project was initiated in 2012 to study: the species identity and relatedness of cleavers populations across the Prairies: the differences in emergence timing and morphological traits; and the response of populations to current and potentially new herbicides. The project is being funded by: SaskCanola, the Saskatchewan Agriculture Development Fund, the Western Grains Research Foundation, Monsanto, Bayer Crop Science, FMC and BASF. SaskCanola has also provided scholarships for two graduate students. Andrea De Roo and Ian Epp, who are working on the project.

There are three species of cleavers in western Canada: northern bedstraw (Galium boreale), false cleavers (Galium spurium) and catchweed bedstraw (Galium aparine). G. boreale tends not to infest crop lands, staying in field edges and bush areas. The other two species are likely distributed across the Prairies. Understanding their distribution, competitiveness and response to herbicides should help researchers understand why populations are increasing as well as how better to manage cleavers in canola crops.

"We have established a 'common garden' to compare cleavers, including 10 populations from western Canada, two from Europe and possibly two from Ontario," explains Willenborg. "Each population was planted in microplots in the same field, which allows us to compare genetic differences without influence of environment."

"We are finding differences in the timing of emergence of populations. Some populations tend to have greater emergence in the spring while others emerge both in spring and fall. Regardless, many of the populations have some portion of their emergence periodicity occurring in both spring and fall," Willenborg says.

The timing of emergence is important for herbicide control. The early emerging populations were controlled more effectively with a pre-emergent burndown application. Tillage is not an effective option as it actually promotes the recruitment of cleavers.

"So far the results show there are two main scenarios in western Canada," says Willenborg. "Cleavers can overwinter when they emerge in the fall and can become too large to get an effective pre-emergent kill. We are also finding that cleavers actually emerge just after growers plant the crop and by the time they reach the three-plus whorl stage, some of the herbicide systems are unable to control the cleavers in-crop."

Willenborg and his team have collected two seasons of data on emergence timing and morphology of populations and will be summarizing the results over the winter.

The second part of the project examines improved herbicide options for growers in all three herbicide tolerant systems: Roundup Ready, Liberty Link and Clearfield. "We are looking at the potential of adding two new products that we think may improve the control of cleavers," explains Willenborg. Preliminary results show additional efficacy when these products are added in all three HT systems but further research is needed. Currently the products are not approved for use in all of our key canola markets but we anticipate that this will happen in the next two years. •



MBreport



Taste the potential of cold

Growers team up with researchers to test new product

The day may soon come when chefs brag about the variety of "cold-pressed virgin Manitoba canola oil" they use. At least that's the hope of a new product development project by the Manitoba Agri-Health Research Network Inc. (MAHRN) in co-operation with the Manitoba Canola Growers Association (MCGA).

Supported by the MCGA and funded by Growing Forward 2, the project ran its first test of cold-pressed canola oil late last year, unveiling the results at a Manitoba Canola Growers #CanolaConnect event in March 2014.

"It's a really tasty product," says Ellen Pruden, education and promotion manager with MCGA. "It is really packed with flavour. It's nutty and has a very dark-yellow hue to it. The initial response from chefs and food writers has been very encouraging."

That response is key in determining if cold-pressed virgin canola oil can be a viable commercial product. If it stands up to the taste tests of critics, it could become a new revenue stream for farms looking to sell consumer ready products.

"Many farmers are already familiar with cold presses," says Lee Anne Murphy, executive director of MAHRN. "It's a relatively easy and inexpensive technology to operate on the farm.

"Our task," she says, "was to get something in a bottle that was food safe and of acceptable quality. We've definitely done that. Now we need to look at whether this can be commercialized."

Growing innovation in Manitoba

This project is the latest example of how MAHRN forms clusters of companies and organizations to drive innovation in the food sector. Its goal is to add value to Manitoba food products in ways that are profitable and sustainable.

"This is a niche product, but it's a way to add value at the farm gate," says Brian Chorney, an MCGA director whose East Selkirk farm provided the seed for the test batch of cold-pressed virgin canola oil. "We need to try to find out how large that niche is and how many people are willing to pay a bit of a premium. That's what's required to make this whole thing work."

Second phase to feature more farms

More testing is required and the second phase of the project will feature seed from four different farms representing different regions with unique soil and climate conditions.

If phase two proves successful and MAHRN finds suitable uses for the products, the next challenge will be to see if more farmers are interested in bringing branded products to market.

The project has already been successful in providing an opportunity for the public to learn more about canola and the farmers who grow it.

*This is an abridged version of an article that originally ran in Growing News.





Clubroot testing available in MB



When clubroot was first identified in Manitoba, the MCGA board of directors was unanimous in their decision to support a new DNA-based testing lab right here in in the province. MCGA provided start-up funds, and the Manitoba Plant Surveillance Initiative Lab (PSI Lab) project was kick-started. PSI uses the more sensitive qPCR test to detect low levels of clubroot DNA. The lab allows farmers to submit soil samples – the best way to detect clubroot at low levels.

Grid sampling has begun in Manitoba. Growers who want to volunteer their fields for grid sampling or send in their own samples can contact the lab at **info@mbpestlab.ca**.

The qPCR clubroot test costs \$200 (including shipping and GST). Growing Forward 2 has a rebate program for clubroot testing. More information is available at www.gov.mb.ca/agriculture/food-safety/at-the-farm/pubs/catalogue-growing-assurance-on-farm.pdf

MAFRD soil sampling procedure

- 1. Soil samples should be a composite of five, one cup scoops of soil taken at each of five stops in one field. As clubroot concentration has been found to be highest at field approaches in infected fields, samples should be taken in the vicinity of where equipment usually enters the field. Travelling in a "W" pattern, stop at the five points of the "W" keeping each point at least 20 metres from the others and at least 20 metres from the field edge.
- 2. Clear away residue from the soil surface, and scoop approximately one cup of the top zero to 10 cm of soil at each site (total one litre from all five sites combined).
- 3. Air-dry soil samples in paper boxes and send them to a laboratory for qPCR testing. ●

JOIN US AT CANOLA DAY

Tuesday, January 20, 2015

Keystone Centre, Main Program Area Brandon, MB



9:00 a.m. Canola: What's Happening, What's New, and What's Next

Angela Brackenreed
Regional Agronomist
Canola Council of Canada

10:00 a.m. Canola Market Update

Chris Ferris

Senior Grains Analyst, Canada Informa Economics

11:00 a.m. The 7 Lessons from the Land to Farm Business Management

Pierrette DesrosiersPsychologist and Coach



CropConnect 2015

Mark your calendars and plan to attend CropConnect on February 17 to 18, 2015. Register for this two-day conference featuring a variety of sessions on agronomy, succession planning, marketing, the science of agriculture and more.

Keynote speaker Drew Lerner from World Weather Inc. will assess recent past, current and future weather expectations so that farmers can be better prepared for the growing season ahead.

Be sure to join us for the CropConnect Banquet where comedy couple Deb McGrath and Colin Mochrie, alumni of Toronto's famous Second City comedy troupe, will entertain with love and laughter.

Visit the conference website at

www.cropconnectconference.ca

for full program details. •



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For the fourth annual Heart Healthy Product Development Competition, food science students invent healthy bites with canola oil.

By Alison Neumer Lara

Big snack attack



ungry for a little something? Good news: the future of healthy snacking tastes pretty darn delicious.

The fourth annual Heart-Healthy Product Development Competition, organized by the Institute of Food Technologists (IFT) and sponsored by CanolaInfo, once again challenged food science students across North America to develop a heart-healthy product made with canola oil. This year's contest zeroed in on snack foods, with chip and dip concepts and a fruit-filled pastry taking top spots.

Three teams of finalists were invited to compete at the IFT's Wellness '14 conference in Chicago in March, where judges tasted the final products and asked students follow-up questions. The teams also presented their products to food science professionals attending the conference, who pressed students on their development decisions and product analysis, much like at a real life company meeting.

"The annual Heart-Healthy Product Development Competition gives students real-world product development experience," said IFT president-elect Mary Ellen Camire. "All of the teams came up with very innovative ideas, and the competition has been a great learning experience that will prepare these students for the demands of the job market in the future."

The competition tested students far beyond the lab. In addition to developing

continued on page 62



The team from Rutgers University won the CanolaInfo-sponsored Heart-Healthy Product Development Competition with their product "Heartmony."

a snack product and determining its nutritional value, contestants were required to package it, present it and consider the commercial challenges of bringing it to market, including merchandising, advertising and cost.

"We learned a lot about everything

– all the aspects of product development

– which we get very little of just in the
classroom setting," said Rutgers
University team member Vi Dao.

Crunch time

The winning entry was "Heartmony," a crunchy, multigrain cracker paired with a creamy, edamame-spinach dip created by six Rutgers students.

"It's really hard when you have a set requirement for nutrition. It's hard to meet, but we did it," said team captain Lumeng Jin, noting the product is low in sodium and high in protein, too.

While other student entries attempted the chip-and-dip idea, the Rutgers team's product stood out in part for its great flavour. The cracker, made with oats and dark rye flour, was crispy and savoury, while the soybean-based dip popped with fresh herbs such as basil and cilantro.

"We did sensory taste tests and this helped us to predict that Heartmony could be competitive in the market," Jin said.

Healthy diet, healthy heart

CanolaInfo, the global program promoting canola oil for the Canola Council of Canada (CCC), sponsored the competition to draw attention to heart disease – the leading cause of death in the U.S. – and to show how the food industry can provide consumers with healthy choices.

Among the competition requirements, products needed to be low in saturated fat and free of trans fat in keeping with the U.S. Department of Agriculture's 2010 *Dietary Guidelines for Americans*.

"Canola oil is an excellent component of heart-healthy products because it contains the least saturated fat of all common cooking oils, while also boasting great qualities for food manufacture: neutral taste, light texture and high heat tolerance," said Shaunda Durance-Tod, CanolaInfo program manager at the CCC and one of three judges at the competition. "This year's competition underscores the fact that consumers are looking for good tasting, heart-healthy snack foods made with healthier oils such as canola oil."

Winners' circle

The Rutgers team received a \$3,500 cheque for their first place finish and complimentary registration to IFT's 2014 Annual Meeting and Food Expo.

Second place and a cheque for \$2,500 was awarded to a team from California Polytechnic State University, San Luis Obispo for "Demergo," a rosemary-flavoured cracker packaged with a cauliflower-based spread.

"We felt like cauliflower is totally new," said Cal Poly team captain Adam Yee. "It's a bland base but it works well compared to other flavours."

Students from University of Massachusetts, Amherst won third place and a \$1,500 cheque for "SmarTarts," a fruit-filled, gluten-free take on the breakfast pastry, which used a canola oil-based shortening for the dough.

"This product exceeds the requirements for heart health," said SmarTarts team member Kathryn Harris.
"Consumers are going for snacks with benefits beyond basic nutrition."

Canola oil has a healthy nutritional profile that fits well with those objectives, as the competition demonstrated. Snack on. •

Alison Neumer Lara is account manager for CanolaInfo at Inkovation, Inc. in Chicago, Ill.



Adam Yee led the second place team from California Polytechnic State University, San Luis Obispo, who created "Demergo," a rosemary-flavoured cracker packaged with a cauliflower-based spread.

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