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Innovation helps us adapt to changing markets, climate and consumer demand. In this issue we examine innovation – from smart technologies, to inventive canola products, to the future of canola traits.



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Cover: Sheldon Guthrie farms at Reston, Manitoba. With very little time spent in his home office, his BlackBerry Tour keeps him connected. His smartphone is an essential farm management tool he wouldn't be without. Photo by Jon Whetter.

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BUILDING SUCCESS THROUGH INNOVATION

By Kelly Green



While many of us see innovation as something complex the definition is remarkably simple – 'the introduction of something new'. Throughout the centuries innovation has been an essential element of progress. Think about the far-reaching impact of innovations such as the printed word, antibiotics, the internal combustion engine and the telephone.

When first introduced in the 1970s, canola presented new solutions to some unique challenges. First, western Canadian farmers were seeking out new, profitable cropping alternatives to well-established crops. Second, the food industry was searching for reliable and economical vegetable oil substitutes for existing supplies such as soybean.

Today, canola is considered a great Canadian agricultural innovation, being our nation's only made-in-Canada field crop, generating \$14 billion for Canada's economy and over \$5 billion in farm cash receipts in 2009.

Canola is considered a great Canadian agricultural innovation, being our nation's only made-in-Canada field crop.

These great achievements were realized because of a steadfast commitment to innovation by the entire industry – producers, developers, crushers, processors and exporters. Our continued commitment to investing in innovation will be essential as we strive to address the global and local challenges ahead.

As we look forward, agriculture faces some tremendous global challenges: providing food security for nine billion people by 2050, adapting to changing climates, responding to water scarcity, reversing the effects of chronic diseases (cardiovascular disease, obesity and diabetes) in developed countries and being stewards of the global environment. And agriculture will have to respond to these challenges in the face of higher fuel costs, contracting farm populations, a static or even shrinking land base and divergent consumer demands.

In this issue of *Canola Digest*, we look into the future and examine innovations such as the latest smart communication technologies that are helping farmers become more efficient managers. We consider the future of canola traits and learn about new canola-based products, including food ingredients that aim to create healthier baked goods.

As you read through this issue think about what other types of innovations will be required for the canola industry to meet the challenges of a changing global landscape. I look forward to hearing your ideas and receiving your comments at editor@canoladigest.ca •

Green

CANOLA INDUSTRY RECEIVES GROWING CANADA AWARD

The substantial contributions of Canada's canola industry were recognized by the GrowCanada partnership during the GrowCanada conference held in Ottawa in December.



"The canola industry of Canada was selected to receive the first-ever Growing Canada Award for the extraordinary example of working in partnership to create a leading-edge industry," says Lorne Hepworth, president of CropLife Canada.

The Growing Canada Award honours an individual, technology, industry sector or association that has made a significant contribution to growth in Canadian agriculture and Canada's position in the world, and has contributed to the overall goals of GrowCanada, including innovation and technology, solutions for health and the environment.

"From farmers to grain traders, seed and trait developers to processors and marketers – the people involved in the canola industry have embraced new technologies, traits and practices, and made this a truly made-in-Canada crop," says Hepworth. "It has also reached consumers, and has been increasingly appreciated as a heart-healthy oil."

"Its success is an achievement of Canada's research community and is a testament to how responding to consumer demands for quality and nutrition pays big dividends over time."

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THE PALM-SIZED OFFICE

With smartphones and other new communications tools, growers can make fertility plans, market grain and read *Canola Watch* while in the field. Meet two canola growers using smart technologies and find out what to consider when investing in these technologies for your farm.

ortney Solonenko's BlackBerry paid for itself over and over last spring as he scrambled to seed his crops between heavy showers. The canola grower from Stornoway, Saskatchewan juggled his crop plan to suit the soggy field conditions. One morning he made a total rotation change for a field and he needed an updated fertilizer prescription map right away so he could start seeding. It turns out his agronomist, Allan Mitchell with AgraTactics in Yorkton, was in Regina that morning for meetings. No worries. Solonenko reached Mitchell on his smartphone and within minutes got an email reply with the new prescription. He entered the new data and went to work.

"Being able to email information back and forth immediately saved us huge last year," Solonenko says. "We got the field seeded that day, and then it rained for five days straight."

His BlackBerry has become an essential marketing tool as well. "I'll be out in the field and Cargill will send me an email with a market update," he says. "I'll often make a quick decision and send a reply with instructions to sell grain or buy a put option."

Smartphones aren't the only new communication tools on the Solonenko farm. Their Case IH 4420 sprayer has a Raven Viper Pro monitor with Slingshot,



which uses signals from cellphone towers and satellites to generate RTK accuracy for automatic steering. This eliminates the need for a separate RTK base tower. As an added bonus, Slingshot also provides high speed Internet through the Viper Pro monitor.

"One day our sprayer's AIM rate controller wasn't working, so I contacted the service specialist. Through the Slingshot Internet connection, he logged into my sprayer controller and fixed it without having to leave his office. And I kept spraying while he worked," Solonenko says.

"Being able to email information back and forth immediately saved us huge last year."

- Cortney Solonenko (above)

Slingshot also helps with record keeping. After spraying a field, Slingshot automatically uploads all field data – what was applied, where, when and at what rate – to Solonenko's password protected data centre on Raven's server. "We don't have to go back to the office each night with cards to upload the data to our home







computer and our agronomist can access our data site and get an update on what we've done," he says.

Peter Gredig, owner of Kettle Creek Communications and a farmer from St. Thomas, Ontario, used to think he was being "delinquent as a manager" if he didn't spend time at his office computer. "With my BlackBerry, I don't need to sit at the computer anymore," he says. "I can check markets and make sales from my smartphone. I read newsletters when I have time through the day. And if I'm doing custom work, I have an application called miTimesheet where I can automatically send timesheet updates from my phone to a spreadsheet on my home computer."

Reston, Manitoba canola grower Sheldon Guthrie has only one phone: a BlackBerry Tour. He has no landline. "In the farming world, we spend less time in the office or house," so it makes sense to choose the smartphone over the landline, he says.

Guthrie uses his smartphone for email as much as for calling. He sends and receives emails from farm input suppliers and reads email market updates. He surfs the Internet and downloads applications or "apps" such as Weather Network and Yellow Pages.

With a full keyboard, texting is also easier on smartphones. Many phone packages offer a couple hundred free texts per month, so this can be a cheap way to communicate. The problem with texts, Guthrie says, is they're not backed up on the home computer the way emails are. He prefers email when he wants to keep a record of the communication.

Guthrie pays about \$100 per month for his MTS Mobility phone bill, which includes voice mail and call display features plus long distance and roaming charges.

Sheldon Guthrie has his BlackBerry with him at all times, using it for calling, of course, but also for email, Internet and mobile apps that help him make more timely and informed business decisions.

"It would be cheaper to use a landline for long distance," he says, but even though his wife has a home office with a landline, he still uses his BlackBerry. It comes back to convenience.

Guthrie would rather have a Palm Treo phone for its Windows platform. That way he could enter field notes on his smartphone and have the files automatically synchronize with the Windowsbased FCC (Farm Credit Canada) AgExpert Field Manager software on his home computer.

Guthrie chose a BlackBerry because MTS Mobility is the only company that offers reliable service in his area but they do not offer Palm phones.

These restrictions are loosening on a few fronts. First, wireless companies are expanding their phone choices.

SIGN UP FOR CANOLA WATCH

Canola Watch provides timely canola agronomy information direct to your smartphone or home computer. The free email newsletter from the Canola Council of Canada comes out weekly during the growing season, and from time to time during the winter. Go to www.canolacouncil.org and scroll to "Sign Up for Email Updates" in the bottom right corner of the home page. Enter your email address, check the Canola Watch box and click "Sign Up".

MTS Mobility, for example, now offers a Windows-based HTC Touch Diamond phone. And if it's Windows you want, check to see which companies will offer the new Windows brand phones.

Second, wireless companies are expanding their service in rural areas. Bell, Telus and Rogers already offer 3G (third generation) throughout all of Alberta, SaskTel will blanket Saskatchewan with 3G by the end of 2011, and MTS Mobility and Rogers will jointly roll out 3G service throughout rural Manitoba in early 2011. More companies in the rural market means more phone choices.

This still won't help Guthrie get a Palm – Bell offers Palm phones, not Rogers – but Rogers' lineup currently includes the Windows-based Samsung Focus, giving Guthrie another option.

Third, agribusinesses are exploring ways to expand their smartphone services. Glen Kroeker, director of FCC management software, says FCC has no immediate plan to expand its AgExpert program for smartphones. One hang-up, Kroeker says, is that not enough growers are willing to put their financial information online – a necessary step for an AgExpert smartphone application. "Developing an application to make AgExpert work with BlackBerry, iPhone

continued on page 8

and other smartphones takes a fair bit of development investment, so we want to make sure producers will pay for it and use it," he says. "We see hesitation among growers at this time but I do think that will change."

Gredig, who managed the development of a BlackBerry agronomy app for Pioneer Hi-Bred in Ontario, agrees. "Ag specific apps are starting to show up and there are many in development right now," he says. "Equipment companies, banks and farm organizations are racing to create smartphone apps that help them communicate directly with farmers and provide the services they need, wherever they may be."

The question for first time smartphone shoppers is which phone to buy. Before making a snap choice, consider what features you want. Then ask around to learn which wireless companies provide good coverage in your region. Once you identify which carrier has the best coverage, look at its phone choices and pick one with the features you need. If you're unsure what features you want, consider a short-term contract in case the phone disappoints. You'll pay more up front for a short contract but you'll be able to switch sooner.

Wireless networks across the Prairies are being upgraded to 3G power, with 4G on its heels. That means much faster data transmission to and from wireless devices. But many existing phones are not programmed to handle 3G and cannot be upgraded. MTS Mobility says it will keep its old network in place for customers who don't have 3G-ready phones. For those in the market for a new phone, make sure it's 3G.

If you can't wait for 3G or if 3G isn't enough, there is a fix for your one-bar blues – a signal booster. Troy Prosofsky, the Canola Council of Canada's agronomy specialist for southern Alberta, has a 3G iPhone, and even though he lives in the heart of 3G country he has a threewatt booster in his truck. He wanted five bars of signal power to prevent dropped calls in the foothills and deep valleys of southern Alberta. "It cost me

around \$400 but now I rarely if ever lose service," says Prosofsky, who spends half the year working from his truck.

A signal booster is just one useful add-on for the farm-based smartphone user. For Guthrie, his OtterBox cover and BlueParrott headset are "essential". OtterBox Defender is a plastic shell that protects the phone from "bumps, drops, scratches and dust," the OtterBox company says. The company will not claim Defender is waterproof, but Prosofsky says his OtterBox-protected iPhone survived a rain shower. Good thing, too. It costs \$800 to replace an iPhone.



Guthrie's BlueParrott B250-XT handsfree headset eliminates background sound for a clear conversation. "It works great in noisy work environments," he says. You'll find other brands of protective covers and handsfree headsets but this gives you a starting point when shopping.

Smartphones are here to stay and will become more powerful and more useful every year. "Once you start using smartphones and get handy with them, the payback is huge," Gredig says. Prosofsky adds, "compared to the other high-tech tools on farms today, a smartphone is relatively easy to learn and operate."

The concept is simple: You can now take your office wherever you go in the palm of your hand. ●

Jay Whetter is a communications program manager with the Canola Council of Canada.

THIRTY PERCENT OF ONLINE FARMERS HAVE SMARTPHONES

In early 2010, 18 percent of Prairie farmers owned smartphones (such as BlackBerrys or iPhones) that provide email and Internet on top of regular calling features. This is according to a survey conducted by Blacksheep Strategy. The survey also found that another 15 percent of farmers planned to get a smartphone within the next 12 months. If that actually happened, then around one-third of farmers who were online at the time of the survey now have these handy devices.

Of the growers who already have smartphones, 68 percent email at least once a day, 74 percent text at least once a day, and 45 percent visit a website at least once a day.

With larger screens, simpler operation and faster 3G data transfer coming on stream, newer smartphones make it easier to use the Internet. This is good news for growers. In the survey, 58 percent of all growers said the Internet is "extremely valuable" to their farm business operation. A smartphone gives them Internet access all day and anywhere.

74%

of canola growers surveyed own a computer and use it to access the Internet

Among online Prairie canola growers

88%

own a cellphone

18%

own a smartphone

15%

plan to get a smartphone in the next 12 months

87%

with Internet have high speed service

58%

consider the Internet "extremely valuable" to their business

Source: Blacksheep Strategy, based on a survey of 831 online canola growers from across Western Canada in early 2010.





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Liberty Link hybrids	3850, 2153, 3640, 3880, 2163, 2273



CANOLA – A NOT SO SECRET INGREDIENT

By Crystal Klippenstein

Research has unearthed innovative way in which canola can be used in new products.

RENEWABLE PLASTICS

Nearly all of the world's plastics (about 99 percent) are made from non-renewable, petroleum-based feedstock. The Lipid Chemistry Group (LCG) at the University of Alberta set out to find a renewable solution for plastics and has developed a process that converts canola oil into a compound called Liprol, which can be used to make bio-based polyurethanes. Polyurethanes are commonly used in car seats, insulation panels, gaskets, adhesives, carpet underlay and hard plastic parts.

LCG is working with two companies to commercialize its technology into insulated foam panels used in home construction and foam automotive parts. "The potential for industrial uptake of Liprol, once commercialized, is enormous," says Dr. Jonathan Curtis, scientific director at LCG. "At present, Liprol would allow polyurethane manufacturers to make about 50 percent of their product from renewable resources, largely canola oil."

STICKING WITH CANOLA

The pressure-sensitive tape market is a \$26 billion global industry solidly rooted in petrochemical adhesives. Bio-based alternatives have long been researched but a newly discovered alternative - made with canola and other renewable crops - was a complete accident. Researchers at Oregon State University set out to create a wood-based composite. While their approach failed in its intended use, tests revealed they had created a strong and very effective adhesive. Their discovery, which could be used in duct tape, packaging tape, stick-on notes, labels and even postage stamps, is pressure-sensitive, costs about half as much as existing petro-

chemical-based adhesives and can be made from vegetable oils such as canola. Commercialization plans for this new technology are in development.





The Lipid Chemistry Group at the University of Alberta is converting canola oil into bio-based polyurethanes.



HELPING SHOREBIRDS

It's a well-known fact that birds affected by oil spills are scrubbed with dishwashing liquid to remove the oil that has soaked into their feathers. But did you know that the first product used to help them – even before dishwashing liquid – is often canola oil? Canola oil acts as a gentle solvent to break down the harder crude oil that has caked into the birds' feathers.



PERFECTING POPCORN

A new omega-9 canola oil product from Dow AgroSciences is helping to make microwavable popcorn heart-healthy. The new product, which reduces the trans and saturated fats in this beloved snack food, is featured in Pop Weaver's signature microwave popcorn flavours, including extra butter, butter and light butter. This switch was so significant that the latter two flavours now carry the American Heart Association's Heart-Check Mark. Pop Weaver provides 30 percent of the world's popcorn and is one of the first companies to tackle both trans and saturated fat levels in microwavable popcorn.



BUILDING BETTER ROADS

Traditional petroleum-based asphalt sealants are applied to road surfaces to extend their lifespan 10 to 12 years. RePLAY, a non-toxic canola- and soy-based sealant penetrates the asphalt surface and can triple a paved surface's lifetime. Sheldon Chesky, president and CEO of BioSpan Technologies, developed a process for breaking down canola and soy oil into the polymers he needed to create RePLAY.

"We can harness these oils and make them into things that people never thought possible," he says. "Unlike any other surface sealant, skid values are not altered and we've only had one pothole in 11 years." RePLAY can seal cracks, reverse oxidation and stop water penetration. It can be used on virtually any paved asphalt surface such as parking lots, streets, runways and even tennis courts. RePLAY is used on approximately 140,000 lane miles in Canada, the U.S., Europe and Asia.

A PROTEIN BOOST

Protein isolates, a pure protein source, are widely used in many food products including sauces, baked goods, protein bars, beverages, confections and meat products. They improve the texture of meat products, boost food's protein content, enhance moisture retention and stabilize emulsions. Food companies are shifting to plant-based protein isolates because they offer the same functionality as animal-based isolates at a substantially lower price.

Three canola-based protein isolates

– Supertein and Puratein from Burcon
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Specialty Proteins – are being developed
in Canada. These isolates have a higher
protein efficiency ratio than soy
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Recognized as Safe (GRAS) for human
consumption by the U.S. Food and Drug
Administration, an extremely important
step in commercialization



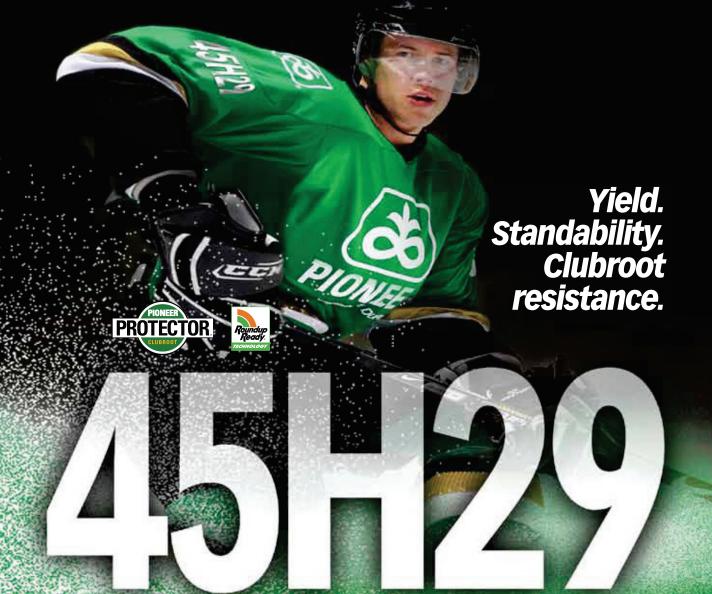


SMARTER SOFTNESS

Traditional fabric softeners use tallow and animal by-products to keep clothes feeling soft. However, these products are viewed as undesirable by some people including individuals with allergies, people with aversions to animal-based ingredients and animal care groups. Several natural fabric softener brands are now using a canola-based softening agent to replace tallow. The canolabased agent is readily biodegradable, non-toxic and non-irritating to the skin. In addition, using canola allows companies to gain kosher, halal and vegan certification for their brand. Two popular choices are Seventh Generation Free & Clear Natural Fabric Softener and Method Fabric Softener.

If an interesting canola-based product crosses your path, let us know about it! Email editor@canoladigest.ca

Crystal Klippenstein is a communications coordinator with the Canola Council of Canada.



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A BALANCING ACT

By Jay Whetter

Canola farmers talk about their crop rotation decisions and explore the opportunities and challenges that come with shorter planting cycles.



KENT ERICKSON

Irma, Alberta

Kent Erickson and his father, Mel, follow a "rigorous" four-year canola rotation. The first time they grow canola on a field, it will be Liberty Link. Four years later, they grow a Roundup Ready variety. In between canola, the preferred rotation is winter wheat followed by peas and then hard red spring wheat.

"If you need the money, then it makes short-term sense to tighten the canola rotation," Erickson says. "But the longterm benefits of a four-year rotation are definitely there." For example, in 2010 they rented some new land that had been on canola two years ago. They seeded it to canola anyway. "This canola yielded five bushels per acre less than our canola-on-pea land. At \$12 per bushel for canola that worked out to a \$60 benefit for having peas in the rotation," Erickson says. This one field is not a scientific trial, but the Ericksons believe growing peas every four years builds organic matter and provides extra nitrogen, which benefits all other crops in the rotation.

"Canola every second year builds up the disease inoculum. We don't want to be the farm that introduces clubroot to our area."

- Kent Erickson

Disease management is a key motivator for their four-year rotation. They haven't had any major disease problems and don't use fungicides, but they stick with a four-year rotation as a preventative measure. "We want to keep canola in our rotation for years to come," Erickson says. The looming threat of clubroot has solidified their resolve. "Canola every second year builds up the disease inoculum. We don't want to be the farm that introduces clubroot to our area," he says.



CHRIS LINCOLN

Maryfield, Saskatchewan

Chris Lincoln farms 7,200 acres with his father, two brothers and an uncle at Maryfield, Saskatchewan. For the past six years, they've been using a two-year rotation with canola and hard red spring wheat. The motivation is canola's profitability compared to flax, which they pulled from the rotation because of lower yields and weed pressure from cleavers and kochia. As for other crops, "I'm not a big fan of peas and it's hard to get malt-quality barley around here," Lincoln says.

They sprayed all of their canola for sclerotinia this year but haven't had any noticeable problem with blackleg – one disease that can get severe in fields with tight canola rotations. They always use canola varieties with an "R" rating for blackleg resistance and they do rotate among Roundup Ready, Liberty Link and Clearfield systems.

In 2010, the Lincolns had drowned out areas in fields and they had hail but canola yields still averaged 35 to 55 bushels per acre, depending on the field. "We haven't seen a yield drag yet with our rotation," Lincoln says.

They plan to put canola on half their acres again in 2011.

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FRED JANTZEN

Rosthern, Saskatchewan

Fred Jantzen's rotation in 2010 included 900 acres of canola, 900 of cereals and 300 of peas. Another 200 acres couldn't be seeded because of excess moisture.

Jantzen had been using a four-year rotation for canola but money encouraged him to bump up his canola acres. Based on results from 2010, he made the right decision. His canola did really well with net average yields around 45 bushels per acre at top quality. He says his peas were garbage. Peas usually perform well for him but his 2010 crop yielded 25 bushels per acre and he says he'll be lucky to grade No.3.

"I don't want to view my rotation as short-term."

- Fred Jantzen

Will he drop pea acres and increase canola in 2011? "I don't want to view my rotation as short-term," Jantzen says. He hopes to maintain peas at about one-sixth of his total acres and canola on one-third, but weeds may be a determining factor. He didn't get pre-harvest done on his wheat so he already knows weeds will be a challenge next year. Weeds are easier to deal with in canola than in peas.

Jantzen hasn't noticed any problems from a tighter canola rotation. "We're definitely spraying more for disease now, but that's not a reflection of our rotation," he says. "We're spraying mostly to prevent sclerotinia and that's because of denser canopies and higher yielding varieties."

When asked why not take the jump to a one to two rotation of cereals and canola, Jantzen says, "I'm hesistant. I'd expect to see more disease problems in that case."



FRED POHR

Fairview, Alberta

Fred Pohr seeded every one of his 6,000 acres to canola in 2010 – that was a first. He has one field that has been in canola 10 of the past 12 years. It yielded 25 to 30 bushels per acre this year, which was okay given the dry summer in the Peace region. Over the past dozen years, Pohr has been "really happy with the results" on that field.

Pohr normally has some wheat in his rotation but "the market told us not to grow any wheat in 2010 by offering only \$4.50 a bushel," he says.

Pohr highlights three issues with his canola rotation:

Bug pressure. He thinks flea beetle pressure is 50 percent higher with canola-on-canola compared to canola-on-wheat stubble.

Sclerotinia. He sprayed 80 percent of acres for sclerotinia in 2009 because of June rains but none in 2010 because it was so dry.

Volunteer canola. He applies glyphosate post-harvest and then again post-seeding/

pre-emergence in the spring to take care of volunteers. If volunteers do come up after that, they're emerging with the crop and do not present complications in terms of staging, he says. "Then it's just like seeding heavy." But if volunteers come up ahead of the crop, "then it's like getting \$4 quality from \$8 seed."

He is "vigilant" with his disease scouting and hasn't seen any blackleg or clubroot in his fields.



DEREK FALK

Crystal City, Manitoba

Derek Falk and his father grow canola on a two-year rotation with cereals. "Canola is the best crop we can grow to make money," he says. "We've been doing this for at least 10 years and have seen no noticeable increase in blackleg."

They work the ground every year, which may help break down blackleg residue, Falk says. The varieties they grow are "R" rated for blackleg, and they apply fungicide every year for sclerotinia. "It only takes 1.5 bushels at today's prices to pay for the application," he says.

If disease did become an issue and they had to look at changing the rotation, they would probably stick with a two-year rotation of cereals and oilseeds, but look at adding soybeans to replace canola. "A lot of growers around here plant soybeans and it seems to work well for them."

Jay Whetter is a communications program manager with the Canola Council of Canada.

ROTATION STILL BEST FOR BLACKLEG

Good returns from canola compared to other crops have encouraged many growers to tighten their canola rotations, an action that will encourage the build-up of blackleg inoculum and could select for blackleg strains that overcome current resistance genes.

"For long-term profitability and sustainability, growing canola one year in four on a field is best," says Clint Jurke, Canola Council of Canada agronomy specialist. "When growers tighten rotations, we encourage them to use blackleg management tools and knowledge to make the best of that decision."

Here are some blackleg management tools:

Grow varieties with disease resistance. At a minimum, growers on tight rotations should choose varieties with an "R" or "MR" rating for blackleg. A rotation study found that blackleg severity with canola in two- and three-year rotations dropped significantly when growing an "R" rated hybrid compared to a susceptible variety. The study was conducted at Agriculture and Agri-Food Canada centres in Melfort and Scott, Saskatchewan from 2000 to 2006.

Rotate varieties. Many genes are responsible for blackleg resistance and at least 16 described virulent blackleg races are found in Prairie soils. Growers don't know which varieties have which resistance genes, but rotating varieties will likely bring a mix of resistance genes to the field over time, Jurke says. This reduces the risk of selecting for blackleg races that can overcome genetic resistance in any one variety. Q2, for example, went from an "R" rating when it was originally launched to an "MS" or "S" rating in some areas today because it only has one gene for blackleg resistance. Blackleg races have overcome that resistance gene in many regions.

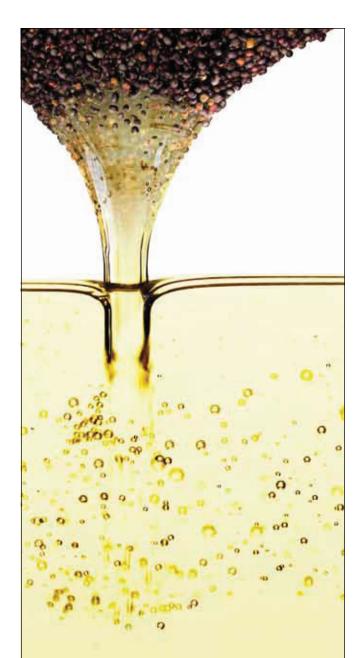
Scout for disease. If you see blackleg in a canola crop, going back to a four-year rotation can help reduce its long-term severity. Note that pressure from clubroot, sclerotinia, alternaria and seedling diseases can also increase with tighter rotations.

Control volunteers. Canola volunteers and related weed species such as wild mustard, flixweed, shepherd's purse and stinkweed can host blackleg and other canola diseases in non-canola years. If not controlled, these volunteers and weeds act as a disease bridge, reducing the effectiveness of rotation and resistance for disease management.

Stick with four-year in clubroot zone

A four-year rotation is the minimum for clubroot management. "Growers in known clubroot areas should not use tight rotations at all, especially if they know they have infested land," Jurke says.

Clubroot-resistant varieties will reduce disease severity, but growers who choose these varieties should still use a four-year rotation to limit inoculum build-up and to reduce the chance of clubroot overcoming the single-gene resistance in these varieties.



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Bayer CropScience

By Gail Granger

The next decade of canola traits will offer new value to consumers and growers alike.

fter a decade of impressive yield increases and agronomic advances, could there possibly be much more room to improve Canadian canola varieties?

Yes indeed, say the industry's major breeders.

By the end of the next decade, growers can expect to see not just higher yields, but greater consistency of yields under a wider range of conditions. They can also look forward to oil and meal improvements that will continue to build canola's appeal in the marketplace.

COMBATING DISEASE AND WEEDS

With blackleg, sclerotinia and clubrootresistant varieties now on the market, the next step will be to combine multiple forms of resistance in a single hybrid, says Rod Merryweather, Bayer's North American director for seeds and traits operations.

"You won't ever see a product with every resistance because most farmers don't need it," he says, "But it's likely that we'll see multiple stacked genes if growers have a need for it."

Meanwhile, Monsanto plans to make clubroot protection more robust by building in resistance to multiple forms of the pathogen, says Neil Arbuckle, Monsanto's west marketing lead. In the battle against weeds, growers will be able to stock their artillery with hybrids tolerant to a broader range of herbicides. Within the next few years, the cross-licence agreement between Monsanto and Bayer will result in the Roundup Ready gene stacked in with Liberty tolerance.

By mid-decade, Monsanto also expects to introduce a new glyphosate-tolerant trait. The new trait will provide a wider window of application at higher rates that the company expects will control tough-to-kill weeds.

BATTLING INSECTS

To make the crop less susceptible to pests, researchers are developing canola with traits that are unattractive to certain types of insects.

For example, scientists at the University of Alberta are exploring a type of canola that repels the cabbage seedpod weevil, a serious threat spreading through southern Alberta and southern Saskatchewan. In field trials, weevils are turning up their nose at the smell of this canola, which is based on germplasm developed by the University of Guelph using resistance from the white mustard plant.

Hairy canola seems to be the turn-off for flea beetles. Researchers at Agriculture and Agri-Food Canada's Saskatoon Research Centre have been stimulating canola plants to produce more hairs on seedling leaves and stems by inserting genes from canola's hairier relatives, such as *Arabidopsis*. The hairs interfere with the specific behaviours flea beetles carry out to test a plant before eating it. The finicky beetles then move off the plant for more attractive real estate.

MANAGING STRESS

An important new realm for transgenic breeding is abiotic stress – the many environmental factors like drought, frost and heat-blasting that can prevent the crop from achieving its full yield potential. Among the seed companies exploring this area is Viterra, which is collaborating with Evogene on research it hopes will expand the geographical area for growing canola.

REDUCING HARVEST LOSSES

A new trait that will reduce pod shatter "could be a game-changer in canola," says Bayer's Merryweather.

He predicts shatter-resistant canola will allow growers to delay harvest until most of the seeds have turned colour. The new trait would also make straight-combining a viable option in some areas.

If everything goes as planned, Bayer will introduce the new trait by 2013.

continued on page 18

GREATER MATURITY FLEXIBILITY

Dave Charne, research director at Pioneer Hi-Bred, predicts earlier maturing varieties will give growers far more flexibility in the decade ahead.

"Faster maturity would greatly reduce a risk that growers face every year," Charne says. "Put it together with reduced pod shatter and you've got a very attractive option for growers."

He adds that as farmers grow more canola, they'll be looking for a greater range of products. "They could grow a combination of varieties with different maturity rates as a way of spreading out the workload and reducing the overall risk. It's all about giving the grower more options."

EFFICIENT USE OF NITROGEN

Monsanto is working on yield traits that could result in more efficient use of nitrogen or water to provide farmers with more predictable performance under adverse conditions.

Among those anxious to see nitrogenefficient varieties come to market is Wayne Bacon, chairman of SaskCanola and former chair of SaskCanola's research committee.

"It's the route we must go to stay competitive with soybeans," says Bacon. "We could use 30 to 40 percent less product and get the same results," which would be a huge benefit from both an economic and environmental standpoint.

THE FUTURE OF YELLOW-SEEDED CANOLA

In addition to its napus cultivars, Viterra is developing its yellow-seeded juncea varieties, which Daryl Males, manager of canola development, says will provide unique opportunities to develop meal quality while providing greater stress tolerance and reduced pod shattering.

"The first improvement in our pipeline is hybrid varieties for higher yields and higher yield stability," Males says. "Secondly, Viterra will be introducing better disease resistance, followed by improvements in drought and stress tolerance."

OIL PROFILES

More varieties engineered for high oleic acid content and low saturated fat content will soon come to market. Meanwhile, research is continuing to expand the health benefits and commercial potential of canola oil.

In Saskatoon, for example, the National Research Council's Plant Biotechnology Institute is developing canola with a higher content of plant sterols, which have been proven to lower bad cholesterol in humans. The seed is expected to be available in five to seven years, with the oil available to the food industry in five to ten years.

STACKING TRAITS

With the canola industry evolving so quickly, one of the greatest challenges facing breeders is determining how to

stack traits to provide cost-effective products when and where farmers need them.

"A whole bunch of different traits are important to farmers in different areas," Bacon says. "But if all traits are in one plant, the seed could be too costly for the farmer who only needs a few of these traits."

While it isn't too difficult to stack traits, Merryweather says it's important to find combinations of traits that work well together, and also meet a clear market demand. Fitting those pieces together is one of the most critical puzzles seed companies will be dealing with over the next decade.

GREATER COLLABORATION

Grower organizations and seed companies agree that one of the keys to helping canola move forward faster is greater co-operation among all players in the industry.

Fierce competition is spurring the development of new traits. But Merryweather points out that alternative approaches may aid the kinds of research that are financially unattractive for individual companies, yet important to the future of the industry.

"It costs just as much to develop a new meal trait as a new oil trait, but there's less return on investment and that is frankly why you don't see much meal research," he says. "The best solution for this type of challenge may be for the growers and seed companies to work in partnership."

The goal of industry stakeholders for the next 10 years is to get all major breeders together at the same table to set priorities and collaborate on developments that benefit the industry as a whole, says Pat Flaten, research director of SaskCanola.

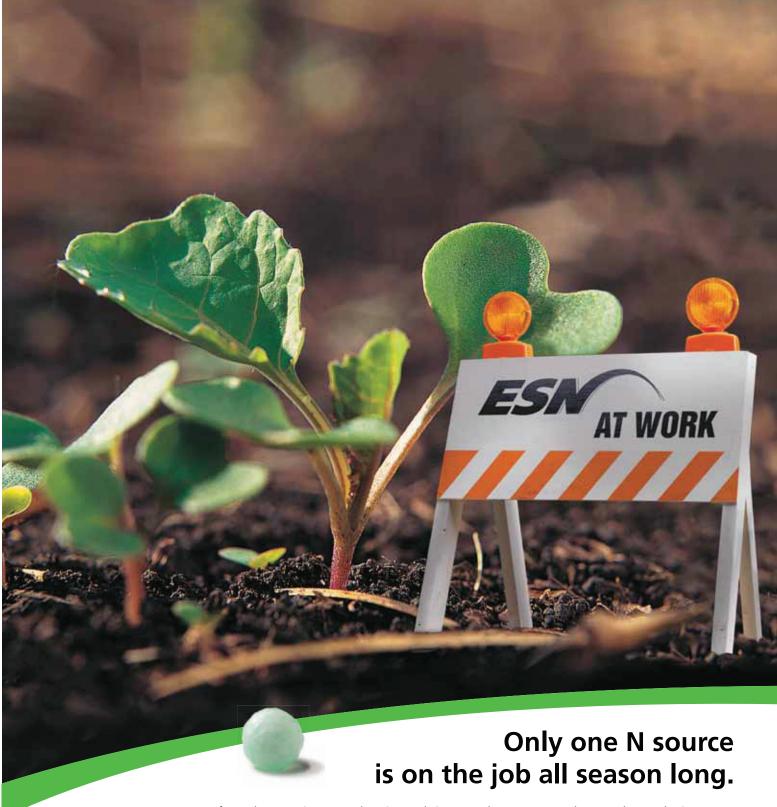
"Our dream is to get a process in place that allows us to truly collaborate while still retaining the incentive to compete." •

Gail Granger is a communications consultant and freelance journalist based in Winnipeg.

PROFITABILITY: MORE THAN YIELD

Yield rules in the fast-paced world of canola breeding. But growers and seed companies alike know profitability is a recipe requiring multiple ingredients. Canola breeders are focusing on every aspect of profitability:

- Preventing harvest losses by reducing pod shatter,
- Reducing input costs through greater nitrogen efficiency and improved resistance to disease and pests,
- Providing more weed control options by providing a broader range of herbicide tolerance,
- Removing obstacles to consistent performance by building in greater tolerance for stressors like drought, frost and heat, and
- Increasing the crop's value by developing varieties that produce a higher quality of oil and meal.



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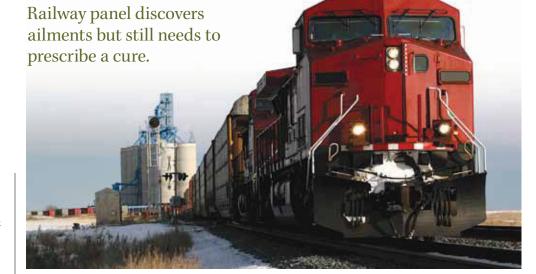




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A CROSS ROAD FOR RAIL SERVICE

By Richard Kamchen



n an ideal world competitive forces would ensure acceptable rail service to canola growers – however, conditions in Canada's rail sector are anything but ideal. The reality in the field is limited or no competition, making the only viable option stronger regulatory enforcement from Ottawa.

In 2007, the Canadian Canola Growers Association (CCGA) joined a coalition of shippers to help get Bill C-8 passed. The bill included enhanced dispute resolution mechanisms and the commencement of a railway service review. The review would examine Canada's rail logistics system, focusing on the service provided to Canadian shippers and customers.

The first step of the process was to complete a technical assessment of the state of rail service. The second stage, now near completion, involved creating a three-member panel of experts to develop recommendations and submit a final report to the Minister of Transport, Infrastructure and Communities. CCGA made submissions and met with the panel throughout 2010.

In October the panel released its interim report. In the report the railway freight review panel pinpointed the problems inherent in the system, but failed to present a solution for fixing them.

In its response to the report, CCGA acknowledged that the panel recognized

the railways' geographic monopolies and their lack of accountability but its recommendations didn't go nearly far enough.

"There are recommendations on what railways and shippers should do, but none actually compel the railways to do anything differently from what they're doing right now," says Kara Gray, director of policy development at CCGA.

"There's no competition to force them to improve their service."

- Colin Felstad

The panel first recommended that railways and their stakeholders "continue to develop commercial measures to improve rail service." Canola farmers contend that without competition, the railways' relationship with shippers is completely uneven and can not be balanced without regulations.

"There's no competition to force them to improve their service," says Colin Felstad, a canola farmer and CCGA director who farms 100 kilometres north of Edmonton. "As a rail shipper, we have no other alternative – you're either on a CN line or you're on a CP line. And for most of the country, they're not very close to each other."

With little shared catchment area between the two networks, there's little competition – and therefore little incentive for the railways to provide adequate service. In fact, the incentive for them is to "skip on service" in order to cut ongoing expenses and benefit their shareholders. They can do it with little impact on market share, since it's not economical to truck to port.

"It's a great frustration not only for farmers like me who ship producer cars but also for farmers who deliver to local grain elevators," Felstad says. "The grain elevators have the same problems I do – reliability of cars. The cars can be delivered whenever CN or CP wants and then we have to load them within 24 hours and are penalized if we don't. But there's no reciprocal penalty for the railways."



Felstad notes the long delays cost everyone but the railways money. He said he rents a siding and has seen it filled with other cars CN stores there, which it often takes the company a month to move. But with no incentive to improve, service won't rise above bare minimum levels.

Although performance may have improved in the last couple years for some shippers, they are sceptical that it will be maintained.

"They only had one way to go and that was to improve, it really couldn't get much worse than it was," says Felstad.

In its interim recommendations, two of the three panel members recommended that backup regulations and legislation should be drafted, but these should only be brought into force if a 2013 assessment finds that they are needed.

As far as CCGA is concerned, the time for waiting has long come and gone.

"Railways have had plenty of time to make commercial arrangements with shippers across the board and they haven't been able to come to satisfactory service agreements. Why would another two years change anything?" asks Gray.

Unless a hard and specific 2013 deadline is introduced into the report, CCGA suspects that shippers may have to wait until the 2015 statutory review of the *Canada Transportation Act*.

"It is a very real possibility that 2013 will come and go with no discernible impact on rail service in Canada," says Gray.

The only way to avoid this is to ensure service and performance is clearly defined. To do so, a mechanism to measure shipping performance would need to be created, as well as an independent body that monitored and reported on that data. Unfortunately, the panel's recommendations leave the on-going assessment of railway service performance to the railways themselves.

Measurement of railway car order fulfillment, car supply, transit time, and local switching performance is required, and it must be done with raw data the railways provide to an independent entity. It also needs to be timely and detailed, allowing for service assessment by region and industry over time for all sectors and shipper groups.

Looking ahead, CCGA believes a review of railway costs for shipping grain is also long overdue.

Railway costs for grain movement have not been reviewed since 1992 and adjustments for changes in industry efficiency have not been made since 2000. During the long period since 1992, Prairie elevator numbers have shrunk from 1,500 to around 240, making rail operations far more efficient.

"I do think we need to update the numbers so that the costs that are used to calculate the revenue cap are more in line with the actual situation today," says Gray.

But although CCGA is lobbying for a review of costs, for now it is focused on shipper solutions for good railway service and performance over the long-term. •

Richard Kamchen is a freelance journalist, specializing in agricultural policy and marketing issues. He writes from Winnipeg.

INGREDIENT INNOVATIONS

By Treena Hein

Versatile canola is the go-to crop ingredient makers are turning to in creating heart-healthy solutions for the bakery industry.

ore and more of us are reaching for healthier foods and cutting back on unhealthy fats at the grocery store, vending machine and even at restaurants. New canola-based bakery ingredients are making these healthy choices easier without compromising flavour and texture.

"The number one trend with consumers is health and wellness, foods to help us live longer and healthier lives," observes Baking Association of Canada president and CEO Paul Hetherington. "As a result, there is a lot of opportunity for food producers to look at their products and make them healthier and often how we do that is to use a healthier fat."

The North American baking industry represents a huge and largely untapped market for innovative canola-based ingredients such as shortenings. Statistics from Joel Gregoire, food and beverage analyst with global market research firm The NPD Group, show Canadians are more often choosing baked goods that feature a health-related claim. The most common of these label claims, Gregoire notes, is trans fat-free, followed by low-fat.

"Trans fat-free labels are particularly prevalent on cookies," observes Gregoire. Along with cakes and pies, cookies are a perennial favourite of Canadians aged 65 and over, reports NPD. "It's also this age group that is most concerned with

heart health issues and they are cautious about serving foods with trans fat and cholesterol," he says. "The pertinence of these concerns with seniors, and the popularity of baked goods among this segment, points to a continued need for the industry to provide hearthealthy options."

To offer consumers goodies that are virtually free of trans fat, companies need to incorporate oils and shortening that have those characteristics. But until recently the only ingredient options available were also high in saturated fats – a well-known causation factor in heart disease.



"The pertinence of these concerns with seniors, and the popularity of baked goods among this segment, points to a continued need for the industry to provide heart-healthy options."

- Joel Gregoire

"The baking industry is looking for trans fat replacers that are low in saturated fats but still provide the functionality we need, and that's the challenge," says Hetherington. "Baking is very much a science; it's chemistry. You need ingredients in measured amounts that perform in specific functional ways. With fats, melting points, lamination (a factor that affects dough workability), working temperatures, how they react to other ingredients and other factors are all important."

In this new era of healthier fat profiles, canola is taking centre stage. Because of its healthier fatty acid profile, canola has already made significant inroads in restaurants and home kitchens. "Canola is now the second most widely used oil in the North American food industry. In the evolution of the food

industry requiring healthier ingredients, canola has become a key solution to deliver health without compromising food taste or oil functionality," says Dave Dzisiak, healthy oils commercial leader, Dow AgroSciences. To meet this growing demand, the company has doubled production capacity of omega-9 oils to more than one billion pounds in North America.

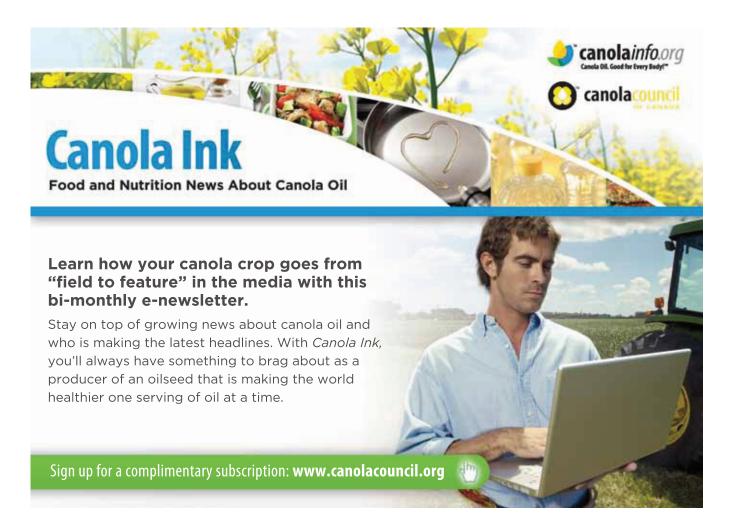
Various solutions have been developed to produce lower trans fat shortenings and margarines for bakery items, says Tom Tiffany, senior technical sales manager, oils and fats, at major ingredient-maker ADM. "Canola oil and high-oleic/low-linolenic canola oil are being used in blends with palm oil and palm fractions to produce 'zero grams of trans fats per serving' shortening," he explains. "Utilization

of canola oil in these blends allows the saturated fat content of these functional shortenings and margarines to be less than those with palm oil only."

Blends that include canola oil also exhibit improved shelf life. Because it contains more monounsaturated fats and less linolenic fatty acids, high-oleic/low-linolenic canola oil provides greater oxidative stability, Tiffany notes. ADM offers a large selection of these products, which perform well in all types of baked goods.

Derived from Dow's omega-9 canola oil, the company's line of Omega-9 Oils Ingredient Solutions have evolved to include new shortenings and spray-oil options. "These products are ideal for food manufacturers looking to eliminate

continued on page 24



trans fat and reduce saturated fat without compromising food quality, functionality or performance," says Dzisiak. "Our Omega-9 shortenings have no hydrogenation, interesterification or additives. They can lower saturated fat content on the nutrition panel and maintain or extend shelf life of products due to their natural stability." They also provide a neutral product flavour.

Phytobake Shortening with Phytosterols from Bunge North America is among several of the company's canola-containing bakery ingredients that provide consumers with zero trans fat and a low amount of saturated fat per serving.

In July 2010, Phytobake won the Institute of Food Technologists Food Expo Innovation Award.

"It allows the dilution of the amount of traditional hard fat or saturates and trans fats used in plastic shortenings (a type of structural shortening) by up to 46 percent," says Bunge director of communications Deb Seidel. "Not only is Phytobake a heart-healthier shortening that maintains the signature texture of baked goods, it contains phytosterols, which may help lower 'bad' LDL cholesterol."

Richardson Oilseed Limited in Winnipeg has reformulated many products aimed at the baking sector to be, not only trans fat free, but also significantly lower in saturated fats. There's a huge opportunity for these products, especially with California-based companies because that jurisdiction is about to become much more strict about trans fats, says Richardson marketing coordinator Jennifer Gustafson. Richardson offers many innovative non-hydrogenated and trans fat-free products for the baking industry.

"Canola Harvest Donut Fry-It is an innovative non-hydrogenated shortening formulation specifically designed for the high temperatures required for donut frying," says Gustafson. "It contains 25 percent less saturated fat than traditional high-palm shortenings, resulting in a lighter taste and longer frying life." Canola Harvest All Purpose-It is a non-



hydrogenated, general purpose baking shortening that is not only economical, says Gustafson, but also ideal for use in a multitude of baked goods such as pies, breads, rolls, frozen dough, dry mixes and cookies. In addition, Richardson will soon release Canola Harvest Ice-It, a non-hydrogenated icing base that has the same functional properties of conventional icings and offers excellent moisture retention properties.

"It's another opportunity to get our healthy oil in front of consumers and boost their awareness."

- Joan Heath

Cargill has also created ingredients that allow for baked goods with zero grams of trans fat per serving and low saturated fat content. "Our Clear Valley shortenings offer superior performance and easy handling, while delivering mouthfeel, texture and stability comparable to traditional shortenings," says Willie Loh, Cargill's vice president of marketing for oils and shortenings. Clear Valley oils and shortenings also enhance the natural flavour of foods.

The fact that canola oil also contains omega-3 fatty acids makes it attractive to companies that produce ingredients for the baked goods sector. That's why Cargill also offers Clear Valley omega-3 shortening, which contains canola and flax seed oils.

"MarketTools research shows that about three-quarters of consumers believe there are health benefits to having omega-3 in their diets," says Loh. "Neilson research found that in 2009, sales of omega-3 products increased by 42 percent. In a survey, about 30 percent of consumers said they purchased a food or beverage product in the past 12 months because of an omega-3 nutrient content claim."

Further development of food market opportunities for canola is always received positively by growers, says Joan Heath, a Radisson, Saskatchewan farmer who has grown canola with her husband Corey Loessin since 1991. The two harvest about 1,800 acres of canola each year.

"More markets translate into increased demand overall but in this specific example of increased use of canola in baking products in Canada and the US, it is especially important because North American markets tend to be a bit more stable than the sometimes fickle overseas markets," says Heath.

Anytime canola is introduced into a new market or product it's a plus because consumer exposure increases, she adds. "It's another opportunity to get our healthy oil in front of consumers and boost their awareness. Every possible way that canola can be used will always be something that farmers support and get excited about – it's great to grow a crop that's so versatile!"

"It's a golden age for canola farmers," agrees Roger Clemens, president-elect, Institute of Food Technologists. "If they can produce sufficient high-quality harvests of new varieties with healthier fatty acid profiles that provide foods with the same flavours and characteristics but with more health benefits, the opportunities are unlimited."

Treena Hein is an Ontario-based freelance writer and educational consultant specializing in agriculture.

OTHER CANOLA IS YELLOW... OURS IS GOLD



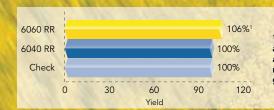
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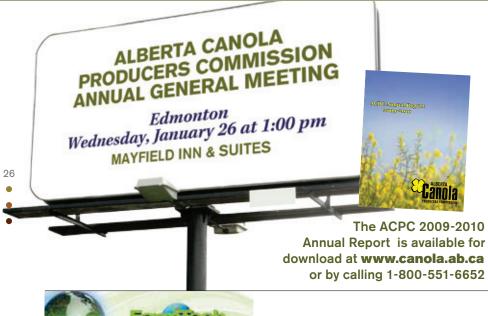
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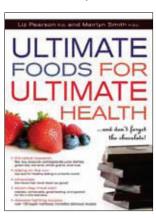
"MEET THE DIETITIAN" AT FARMTECH 2011

Meet Maureen Elhatton, registered dietitian and specialized diabetes educator. Elhatton will attend the ACPC booth during FarmTech and answer your questions about fats, their role in your diet and health in general. Stop by the booth to visit Elhatton on Wednesday, January 26 and Thursday, January 27.

ACPC will also be drawing for copies of *Ultimate Foods for Ultimate Health...and don't forget the chocolate!* written by FarmTech favourite, Mairlyn Smith. Smith is a multi-talented home economist who creates recipes that are super nutritious and incredibly delicious.

Smith and Liz Pearson teamed up to write *The Ultimate Healthy Eating Plan...that still leaves room for chocolate*, an award-winning, national bestseller. Pearson, registered dietitian, has a passion for peanut butter sandwiches and love a for chocolate. *Ultimate Foods for Ultimate Health...and don't forget the chocolate!* kicks up another level, answering more questions, providing more great advice and highlighting more disease-fighting, powerhouse foods. In addition to containing 50 "best of the best" recipes from the original book, it features 90 new and tasty nutrition-packed recipes.

Mairlyn Smith will be speaking at FarmTech 2011 on Thursday, January 27 and Friday, January 28. •



EXPANDING THE NUTRITION PROFILE

First, we talked about the dietary fat chart:

- the benefits of canola oil's low saturated fat content;
- the value of monounsaturated fats in lowering your LDL (lousy) cholesterol;
- the facts on canola oil's omega-3 content; and
- the need for omega-6 as part of a healthy diet.

Now we'll add some other health benefits of canola oil: Vitamin E and K; phytosterols and polyphenols. ●

Canola Oil.

Also, good source of:

- vitamins E and
- phytosterols
 polyphenols

Vitamin E

- 1 Tbsp (15 mL) = 2 m
- helps protect against damage by free radicals that attack DNA
- also known as tocophero

Vitamin K

- 1 1bsp (15 mL) = 20 mcg (~20% daily need)
- helps with blood clotting and calcium absorption
- K1 is the type in canola oil.

Phytosterols

- work by competing with blood cholesterol
- decreases amounts of cholesterol that are absorbed in the gut
- that are absorbed in the gut

Polyphenols

- known to reduce risk of cardiovascular disease
- known to reduce risk of cancer
- canolol, isolated from canola oil



NUTRITION REQUIREMENTS FOR PREGNANCY

A team of Alberta researchers continues to look for pregnant women in Alberta to take part in a groundbreaking study with the Alberta Pregnancy Outcomes and Nutrition (APrON) team.

The team is studying the links between what a woman eats while she's pregnant and her mental health before and after giving birth, as well as the baby's development long-term. Surprisingly, few studies look at the nutrition of pregnant women.

So far, the APrON study has reached out to over 1,200 participants but researchers are looking for more. "We need more participants to get a rich database of information – women from different backgrounds, with different types of eating habits and lifestyles – so we can determine what factors influence a woman feeling good through her pregnancy and into early lactation," says Dr. Catherine Field, researcher involved in the study.

It is often assumed that people in developed countries are following a proper

diet but nutrient deficiencies are very common and this is magnified during pregnancy. The first three nutrients receiving attention in the APrON study include folate, iron and omega-3 fatty acids. Researchers are also looking at maternal mental health.

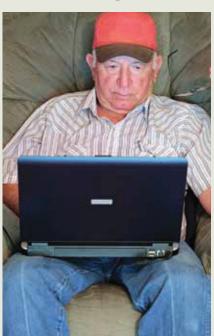
ACPC has supported this study from the onset and continues to be involved. "This is the one study that can indicate how many of these individuals are using canola oil and/or canola-based margarine regularly," says Simone Demers Collins, market development and promotions

coordinator at ACPC. "In addition, with the information on mom and baby's nutritional status, ACPC is hoping to collect statistics on the potential physical and mental health benefits of a diet that includes canola oil."

Initial study data results from the first group of 600 women will be posted on the APrON website in the spring of 2011. Women wishing to participate must be less than 27 weeks gestation and over 16 years of age. For more information, visit www.apronstudy.ca or call 780,492,4667.



LEARN AT HOME - ATTEND AN ACPC WEBINAR



This winter ACPC will continue the very popular webinar program that was initiated last year. Growers who participated in the webinars found the process very simple and have welcomed the opportunity to learn from home without having to drive to a meeting or commit to a full day away from the farm.

Webinars are generally one hour in length and scheduled in the morning.

How does an ACPC webinar work?

- Visit www.canola.ab.ca/events or subscribe to the electronic newsletter to get the invitations to register for a webinar.
- On the day of the webinar join the webinar five minutes before it starts.
 The first time you join there is a small software download that takes two minutes to install.

- When the webinar starts you will see
 the presenter's slides on your computer
 screen and hear his voice through your
 speakers (you can also use the phone
 for audio).
- If you have a question, simply type it in and the presenter will provide a verbal answer
- All you need is a computer and a good internet connection. Even dialup works but there will be some lag time when the slides are advanced.
- Best of all, there is no charge to attend an ACPC webinar.

All ACPC webinars are archived so you can view them anytime at: www.canola.ab.ca/webinar or catch a preview at: www.youtube.com/albertacanola. •

SKreport



EXECUTIVE DIRECTOR: 2009-2010 ANNUAL REPORT

Thinking back to 2009-2010 the crop came off late – November for many. But it was good quality and of average to above average yield. We did not set records for production but we were close to the record year of 2008-2009 in Western Canada.

When we flip back to the spring of 2010 I recall that in March one SaskCanola board member commented on how there was fog around his place. He had heard an



Catherine Folkersen SaskCanola

old wives' tale that fog means moisture about six weeks later. While I think he was looking forward to rainfall, I don't think he was thinking record rainfall in May, June and July. Even though the season started warm and dry in April and some farmers started seeding, for many Saskatchewan agriculture producers this was a difficult year. By year-end (July 31, 2010) Saskatchewan had eight million unseeded acres and a further four million drowned out after being seeded. This was a frustrating situation for many farmers and one we all hope will not happen again.

SaskCanola remains committed to producer profitability. In difficult times it is always a challenge to keep investing in your producer organization, however your organization continues to provide leadership and ensure producer voices are heard by government and other agencies. We clearly stated the need for changes to the cash advance program when farmers were strapped to repay the advance due to a late harvest in 2009. Membership at the Canadian Canola Growers Association and in the Canola Council of Canada ensures that producers are at meetings where communications strategies with all levels of government are determined, future research needs are discussed and input into policy that will affect farmer profitability and sustainability is being developed.

We continue to ensure that market development programs in Canada and abroad are funded and managed to give the greatest bang for your producer dollar, while managing programs in Saskatchewan to allow our communities to share in the success of canola. Our Rider game day continues to be a popular event and allows us to reach several thousand consumers with messages about heart-healthy canola oil.

It has been a pleasure to meet some of you at producer events, field days and to discuss issues with those of you who phoned me this year. Your organization is only a phone call or email away. Let us know what is on your mind. Together we can accomplish our goals.

Sincerely

Catherine Folkersen Executive Director

AGRICULTURE HALL OF FAME RECOGNIZES CANOLA PRODUCER

SaskCanola congratulates Ed Seidle, canola grower and researcher from Medstead, Saskatchewan on his induction into the Saskatchewan Agriculture Hall of Fame.

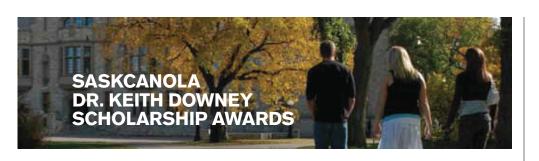
Seidle has grown pedigreed seed since 1946. Over the years, he has spent a great deal of time on research projects with Agriculture and Agri-Food Canada studying canola diseases and seed vigor.

Information on the SAHF and inductees can be found at www.sahf.ca.



We appreciate feedback on our new site www.saskcanola.com.

Email info@saskcanola.com with any comments or suggestions.



SaskCanola is pleased to announce the four recipients of the 2010 SaskCanola Dr. Keith Downey Scholarship. Each student has been awarded \$2,000 to further their studies. The scholarships are made possible through levy dollars funded by Saskatchewan registered canola producers. We also wish to thank all entrants who participated in the scholarship program.

2010 Scholarship Recipients:

Allyson Mierau: Allyson grew up in Langham, Saskatchewan, and is a third-year student in the College of Agriculture at the University of Saskatchewan. Her degree includes a major in agronomy and a minor in agricultural business. Allyson enjoys spending time at the family farm near Arelee, as well as travelling, music and reading. Last summer she worked as an agronomist assistant for Cargill. "I would like to thank SaskCanola for awarding me the Dr. Keith Downey Undergraduate Scholarship Award, and will use this money to assist with my tuition."

Braden Olson: Braden hails from Plenty, Saskatchewan where his dad and two uncles run a grain, pulse and oilseed farm. Farming has always been in his blood. He continues to help out during the summer months and, when time allows, during university terms. Braden is in his second year of agronomy studies at the University of Saskatchewan. "It is a great honour to receive this scholarship and I thank SaskCanola for selecting me as a winner. This scholarship will go a long way in allowing me to pay for tuition, books and other school expenses," he says.

Cara van Burck: Cara is a third-year Bachelor of Commerce student at the University of Guelph majoring in agricultural business. She is the daughter of Hans and Marianne van Burck, who own and operate a seed farm near Brooksby,



Cara van Burck, Guelph University scholarship recipient, receives her scholarship cheque from Catherine Folkersen at the 2010 Royal Winter Agricultural Fair in Toronto.

Saskatchewan. Cara has always been active in her community with extracurricular activities. She continues this practice while attending university. "This scholarship will assist me in my agricultural studies this upcoming semester, as I will be participating in an exchange to the University of Natural Resources and Life Sciences in Vienna, Austria," she says.

lan Epp: lan is attending his second year of agronomy at the University of Saskatchewan. Growing up on the family grain farm close to Blaine Lake, he has been very involved in agriculture. lan looks forward to finishing his degree and continuing to be part of the family farm and the broader agricultural community. "I would like to thank the SaskCanola board and the canola farmers of Saskatchewan for supporting my endeavors. The money from this scholarship will be used on tuition and books as I continue my studies." ●

SASKCANOLA PRODUCER CONFERENCE AND AGM

January 12, 2011

Attend the SaskCanola Producer Conference and AGM on Wednesday, January 12, 2011 at the Saskatoon Inn. Program information on the conference is available at www.saskcanola.com

2009-2010 SaskCanola Annual Report

The Commission's 2009-2010 Annual Report will be posted at **www.saskcanola.com**, following the AGM, Wednesday afternoon, January 12, 2011.

MARK THE DATE!

FEBRUARY			2011			
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

SASKCANOLA PRODUCER MEETINGS

Mark your calendar and plan on attending the 2011 Winter Producer Meetings

February 9
MELFORT

February 10 ROSETOWN

February 15
BATTLEFORDS

February 16
HUMBOLDT

February 17
ESTEVAN

Program information for all meetings is posted at www.saskcanola.com



MBreport



CANOLA PATHOLOGIST RECEIVES UNIVERSITY MERIT AWARD

Dr. Dilantha Fernando, professor and canola pathologist at the Department of Plant Science was awarded the 2009 University of Manitoba's Merit Award. Dr. Fernando received the Merit Award for Excellence in Research and Service for his research on blackleg and sclerotinia. He is also a co-developer of HEAR and other canola cultivars.



Live Well, Keep Well, Eat Well... Be Well!

A monthly update including recipes and articles from experts to keep your mind, body and soul healthy. Sign up Today.

MCGA PARTNERS WITH WHEAT KINGS

MCGA is a Brandon Wheat Kings gameday sponsor on Wednesday, March 2nd. That night, the Wheat Kings will take on the Kootenay Ice at the Keystone Arena – puck dropping at 7:00 pm.

To win one of the 100 tickets available for the game, contact MCGA at

web@mcgacanola.org

Last year we painted the Barn yellow by giving out 1,000 yellow canola thunder sticks, which we will be handing out again this year. Come to the game, get your thunder sticks and make some noise.

Brandon's Keystone Centre "proudly" uses canola oil in their food venues.



MBreport

AGM TO HOST COMBINE CLINIC

The Manitoba Canola Growers Association's annual meeting will be held on Tuesday, March 1st in Brandon's Keystone Centre. This year's AGM will feature a combine clinic. The clinic will be a valuable learning event for canola farmers and we hope will encourage more members to attend the AGM and help MCGA better meet canola grower needs.

The Canola Council of Canada has sponsored several extremely successful clinics in Alberta and Saskatchewan where canola farmers learned how to put more canola into the hopper and more money into their pockets.

This year's AGM will feature a combine clinic, which will be a valuable learning event for canola farmers.

The day will start at 9:00 am with an informative session by Les Hill from Prairie Agricultural Machinery Institute. Les will discuss where combine loss can occur and what you can do about it.

Everyone is encouraged to attend the AGM at 10:30 am. After the AGM the combine clinic will continue with hands-on sessions by several manufacturers. Members can sign up to visit their favourite combine manufacturer and speak directly with a technical representative. Each manufacturer will spend up to two hours explaining the best way to set their combines to minimize losses using the combine they have brought in for the day.

MCGA is excited about this great member opportunity. Pre-registration is required to attend the combine clinic. There is a small fee for the clinic and AGM attendance is free. Look for an official announcement about the event in your mailbox and the *Manitoba Co-operator* or check out www.mcgacanola.org

Please note that all resolutions to be presented at the AGM must be submitted to the MCGA office by January 31, 2011. ●

MCGA CULINARY ARTS COMPETITION

By Shel Zolkewich

The four student chefs stood at attention, waiting to learn which ingredients they would have to use for the afternoon's competition. With all the information and rules of the game in-hand, they calmly proceeded to their stations and started to cook.

The assignment: prepare a salad; plus an entrée complete with a protein, starch, vegetable and at least two sauces; be sure to use chicken, bacon and back bacon;



The winning salad entry.

feature the versatility of canola oil; make your plates look gorgeous; and do it all in just over two hours. Just to make things a little more challenging, the proteins – chicken, bacon and back bacon – were only revealed to the students at that moment. The popular format is known as a black-box competition.

In an atmosphere that closely resembles television's Iron Chef shows, Alannah Moody, Lena Hiebert, Bethanie Wasicuna and Kelsi Sorensen – finalists in the Manitoba Canola Growers Association's Culinary Arts Competition – barely broke a sweat.

The Manitoba Institute of Culinary Arts at Assiniboine Community College in Brandon is home to the competition. The school offers a two-year program where students learn everything from breakfast cookery to how to create an impressive special-occasion cake.

During the competition, executive chef Matt Otten kept close watch on his students, saying very little as the young women whisked canola oil with orange juice, removed breasts from whole chickens, broiled strips of bacon dusted with brown sugar and tied tiny bundles of asparagus with strips of leek. The students moved from prep station to oven, cooktop to deep fryer, taking advantage of the school's well-equipped and massive teaching kitchen.

With the arrival of the first deadline came each student with two identical salads in-hand – one for visual inspection and the other for tasting. The job of judging was left to Leanne Campbell and Ellen Pruden of MCGA, Johanne Ross of Agriculture in the Classroom and food writer Shel Zolkewich.

In the end, the winning menu was a salad featuring cubes of golden beets and a tower of greens topped with back bacon and a hearty entrée featuring a bacon-wrapped stuffed chicken breast. It was prepared by Kelsi Sorensen, who received the Manitoba Canola Growers prize of \$1,000 along with hugs and handshakes from her fellow competitors.



MCGA'S Ellen Pruden congratulates Kelsi Sorensen, winner of the MCGA Culinary Arts Competition, and executive chef, Matt Otten.



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THESE SISTERS ARE FANS OF CANOLA OIL

By Angela Dansby

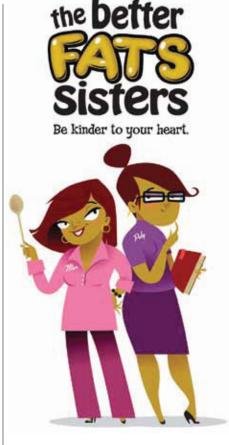
CanolaInfo joins forces with the American Heart Association to promote healthy fats.

nown as "Mon" and "Poly" for mono- and polyunsaturated fat, the American Heart Association's (AHA) Better Fats Sisters cartoon characters have been reanimated by CanolaInfo as a sponsor of the AHA's "Face the Fats" campaign. The sisters were originally introduced to America in 2008 as part of a trans fat education campaign. After that campaign ended, the sisters took a break from the airwaves until CanolaInfo became the first commodity organization to partner with the AHA using a radio public service announcement (PSA) heart health campaign.





The PSA features Mon and Poly advising consumers to choose them, the right types of fats, and avoid "Sat" and "Trans," the Bad Fats Brothers. Canola oil is cited as an exemplary cooking oil. The PSA debuted in September 2010 in honour of World Heart Day, celebrated on September 26. Through November it was broadcast by at least 1,140 stations nearly 87,000 times across the US – from Portland to Washington, DC, and from Chicago to Miami – reaching over 113 million listeners.



"Partnering with the AHA and supporting their consumer advocacy brings great value to the CanolaInfo program."

- Robert Hunter

"The value of running a similar advertising campaign with the equivalent consumer reach could exceed \$3 million," said Robert Hunter, vice-president, communications with the Canola Council of Canada. "Our approach of partnering with the AHA and supporting their consumer advocacy brings great value to the CanolaInfo program."

During American Heart Month in February 2011, the same PSA will air again without competition from US mid-term elections. As a result, the number of broadcasts is expected to be even higher.

Until July 20, 2011, CanolaInfo will "Face the Fats" with the AHA as a sponsor of this campaign, with recognition on all AHA website pages dedicated to fats and oils. CanolaInfo's logo and a hyperlink to www.facethefats.org will be visible on these pages. Other joint educational materials are also being distributed. CanolaInfo will note its connection with the Face the Fats campaign in its own media outreach, especially as it relates to the new Dietary Guidelines for Americans that will be released in early 2011. ●

Angela Dansby, communications manager for CanolaInfo, is based in Chicago, Illinois.

continued on page 34

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FATS SISTERS MAKE AIRWAVES

This 60-second radio public service announcement aired across America in fall 2010 and will air again during American Heart Month in February 2011. Here the Better Fats Sisters encourage consumers to make healthier dietary fat choices on a grocery shopping trip.



SPECIAL EFFECTS:

Grocery store ambiance

POLY: If you love food ... **MON:** And your heart ...

MON: Go grocery shopping...

MON: With me, Mon, short for monounsaturated fat ...

POLY: And me, Poly-unsaturated ...

UNISON: We're the Better Fats Sisters.

MON: Over here in the cooking oil aisle, choose canola, olive and other vegetable oils. Liquids are better for your heart than solid fats.

POLY: You'll also find us in fresh foods like avocados, nuts and fish.

MON: Before you put any baked goods, packaged and prepared foods in your cart, read the labels.

POLY: Avoid our Bad Fats Brothers, Saturated and Trans. They love to clog your arteries.

MON: We're heart-healthier, but let's face it –

UNISON: We're fats!

POLY: We all have the same nine calories per gram. So watch your portions.

MON: And thanks for shopping with us.

ANNOUNCER: The Better Fats Sisters. Be kinder to your heart. Learn more and get recipes at **heart.org/facethefats**, nationally sponsored by Canolalnfo.



BRAISED BEEF AND VEGETABLE STEW

Mairlyn Smith, cookbook author, Toronto

This beef and vegetable stew is a healthy take on a hearty classic. Braising allows the beef and vegetables to reach the perfect tenderness while the tomatoes, red wine and Worcestershire sauce give the dish just the right amount of acidity.

INGREDIENTS

2 lb (1 kg)	lean stewing beef or bison
2 medium	onions, diced
3 cups (750 mL) about six carrots	carrots, chopped
2 cups (500 mL)	rutabaga, cubed, about 1 x 2-inch (2.5 x 5-cm)
4 cloves	garlic, minced
1 Tbsp (15 mL)	canola oil
1 Tsp (5 mL)	dried thyme leaves
½ Tsp (2 mL)	cracked black pepper
½ Tsp (2 mL)	dried tarragon leaves
1 Tsp (5 mL)	dried summer savoury*
½ cup (60 mL)	whole wheat flour
10 oz (284 mL)	low-sodium beef broth, undiluted
1 cup (250 mL)	canned crushed tomatoes
1 cup (250 mL)	red wine, Merlot or Burgundy
½ cup (125 mL)	water
1 Tbsp (15 mL)	Worcestershire sauce
2 stems	fresh rosemary

* Herb similar to sage.

INSTRUCTIONS

- 1 Preheat oven to 350°F (180°C).
- 2 In a large, 14-cup (3.5-L) Dutch oven, place beef, onions, carrots, rutabaga and garlic. Drizzle with canola oil and toss to coat.
- 3 Sprinkle with thyme, pepper, tarragon, summer savory and flour. Toss to coat.
- 4 Add beef broth, tomatoes, red wine, water and Worcestershire sauce. Place rosemary stems on top.
- 5 Cover and cook for 2½ to 3 hours. Remove from oven. Remove rosemary, stir and serve. Store leftovers in refrigerator for up to three days.

Yield: 8 servings.

Serving size: 1 cup (250 mL).

NUTRITIONAL ANALYSIS PER SERVING

Calories	
Total Fat	
Saturated Fat3 g	
Cholesterol	
Sodium 190 mg	
Carbohydrates17 g	
Fiber 4 g	
Protein	

34

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) (lett) ©iStockphoto.com/mgkaya



Extensive investment and innovation has yielded three exciting Viterra bred canola choices for 2011 – VT 500, VT Remarkable, and VT Barrier. We also have a wide selection of exclusive canola, like Proven® 9553. These varieties offer excellent yield potential, great standability, and outstanding value. With so many options – we'll help you find the one that fits your farm.

For more information on these outstanding varieties and our 2011 canola programming offers, see your Viterra retail or visit **seed.viterra.ca**.

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VT Barrier

Proven® 9553



and give back. Go to victorycanola.com to see how VICTORY® Canola and 4-H are partnering to support their communities.

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