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CAN()LAdigest

Canola growers want an efficient harvest and safe storage. This issue explores new technology to lower the risk for straight combining canola, and to alert growers if stored canola is heating.



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Cover: Brett Casavant of Tisdale, SK, straight combined 1,200 acres of canola in 2012. After heavy wind losses to his swathed canola, he plans to leave even more canola for straight combining in 2013.

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THE EDITOR'S DESK

Jay Whetter

As *Canola Digest* editor, I have the privilege of meeting a couple times a year with the Grower Communications Advisory Team. We call this group G-CAT, and like many acronyms, I often forget what the letters stand for. I often mistakenly call it the "action team," which works, too.

Canola Digest is the newsletter of the three Prairie canola organizations: Alberta Canola Producers Commission, SaskCanola and Manitoba Canola Growers Association. G-CAT includes at least two representatives – a grower director and a staff person – from each organization. You get the magazine as part of your contribution to the organization. Canola growers in other parts of Canada also get the magazine, and anyone in the world can subscribe.

When G-CAT meets, we talk about what works with *Canola Digest*, what needs improvement, and what articles we'd like to see throughout the season. In our planning meeting leading into this *Canola Digest* season, one idea was to highlight results from the growerfunded Canola Agronomic Research

THE CANOLA DIGEST TEAM

Program. Writer Donna Fleury has the first of her four-part series in this issue of *Canola Digest*.

Continuing with the research theme, we will issue a *Canola Digest* Science Special in November. It will contain one- or two-page summaries with photos and tables from the 31 research projects funded through the Canola Council of Canada (CCC) and Agriculture and Agri-Food Canada Canola-Flax Agri-Science Cluster.

The commitment to research and market development among grower organizations and the CCC has attracted large contributions from the federal government into canola agronomy research and canola meal and oil nutrition research.

"Grower money is like a magnet," a colleague said to me. "Once growers put money into something, governments and funding agencies see that it is a priority and will make their own contribution."

The CCC and federal government also invest in canola market access programs to reduce barriers to trade and keep canola exports flowing. These include blackleg research collaborations with China, meal research and promotion in the U.S., and constant contact with key canola market drivers in Japan. We have seen massive growth in canola production in Canada, and yet there is still increased demand — due in large part to these market development and market access efforts. A lot content you'll read in *Canola Digest* explains these market development efforts. The article on page 44, for example, describes Canola Camp, an innovative way to educate food writers and dietitians from across North America.

The partnership between your provincial organization and the CCC has many other benefits for growers, including science-based production information from the team of CCC agronomists, events like CanoLab, the Canola Watch email agronomy update, and a presence among policy makers in Ottawa.

If you want to learn more about these initiatives, attend a meeting of your provincial canola organization. If you want to get involved, put your name in for nomination and run for one of the director seats. Provincial directors are at the table when decisions are made that affect growers' profitability.

As a director you would also have the opportunity to join me on the G-CAT committee. You could put your stamp on *Canola Digest*. I want to hear your ideas either way – even if you're not part of G-CAT. Email me at whetterj@canolacouncil.org. •

Advertisement

Break the cycle of sclerotinia this fall

Unique fungicide offers new way to tackle yieldrobbing disease

More and more producers are taking a new strategy in their fight against an old enemy. Contans[®] WG is a soil-applied biological fungicide that breaks the cycle of sclerotinia disease, protecting crop yield and quality for future seasons.

"Applying Contans made all the difference. I will definitely be using Contans again to protect my sclerotinia-susceptible crops, just more of it!"

– Gerry Germsheid, Landis, SK

Wet conditions in parts of

Saskatchewan and Alberta contributed to very high levels of disease pressure during 2012. "Some canola and pulse producers lost 30 to 40 percent of their yield to sclerotinia last year," says Chris Di Ubaldo, product manager for UAP Canada. "But producers who incorporated Contans into their disease management strategy were rewarded with extremely low levels of disease. Neighbours asked what they did differently as their fields were clean and yielded very well."

Stop disease before it starts

Their secret weapon is Contans – a one-of-a-kind fungicide that controls sclerotinia by attacking the diseasecausing fungus in the soil before it can infect a susceptible plant.

Breaking this life cycle is essential in controlling the pest, which overwinters as sclerotia and can remain in the soil for five plus years.

Because Contans fights disease before it starts, applications are made

during the fall after harvest or in the spring before seeding. Working in the soil or on infected crop residues, Contans gets to the root of the problem – the sclerotia bodies – and breaks them down. This action lowers the inoculum levels in the field, significantly reducing sclerotinia populations and disease pressure.

Thumbs up from producers

Fred Stilborn of Balcarres, SK says his area was hit hard by sclerotinia in 2012. "You can visually see a line where Contans was applied and where it wasn't. The fields with Contans had very low levels of sclerotinia disease, between one to five percent, and the fields without Contans ranged from 10 to 80 percent disease incidence," says Stilborn who has used the biofungicide for the past three years. "The Contans fields yielded, on average, 40 bushels per acre whereas those without Contans averaged 22 bushels per acre."

Contans applications have also become an annual disease management practice for Jeff Park, an agronomist and oilseed producer from Carman, MB. "It makes sense to use a biological like Contans as a long-term disease management tool to lower the inoculum levels in my fields," he says.

Proper application critical

Contans can be applied to a number of field and greenhouse crops. It is effective in fields with a history of sclerotinia as well as those under a tight rotation of sclerotinia-susceptible crops (e.g. canola, pulses and beans).

To maximize effectiveness, the product must be applied at the proper rate depending on time of application and susceptibility of the crop. A higher rate is required in the first year for sclerotinia-susceptible crops as compared to non-susceptible ones.



To ensure inoculum levels are minimized for subsequent growing seasons, a maintenance rate is required.

"It's necessary to incorporate the product after application," adds Di Ubaldo. "Once applied to the soil surface and crop residue, Contans should be worked into the upper soil layer by heavy harrow, rainfall or irrigation."

Contans is only one tool of many that producers should be using in an overall integrated disease management strategy that includes proper rotations and the use of foliar fungicides.



BREAK the CYCLE



® Contans WG is a registered trademark of PROPHYTA Biologischer Pflanzenschutz GmbH. UAP Canada is a member of CropLife Canada. Always follow label directions. By Jay Whetter

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STRAIGHT COMBINING

eavy winds during the fall of 2012 blew dry canola swaths all over fields, leaving a mess to harvest, high yield losses, and a huge volunteer seedbank. The destruction had many growers wondering whether straight combining would have been the better route.

Brett Casavant farms with his brother Vince at Tisdale, SK, and he says wind damage to their 2012 swathed canola was a disaster. To him, the wind-blown harvest – their second in five years – justified their decision to include straight combining in their harvest program. "It's heartbreaking to take the crop that far and then watch it all blow away," he says.

The Casavants plan to straight combine a larger percentage of their canola acres in 2013. For the job, they Research has taught growers how to reduce the seed-loss risk with straight combining canola, but the practice is still considered riskier than swathing. That could change with the adoption of new seed and machinery technology.

use a 40-foot MacDon draper header on a Case IH combine. All areas on the header where canola could leak out are sealed, and a "pea auger" along the top back of the header improves flow into the feederhouse.

They grow Roundup Ready and Liberty Link canola, but use only Liberty Link InVigor 5440 and InVigor L130 for straight combining. These hybrids stand up well, Casavant says, and because they're non-Roundup Ready, he can apply pre-harvest glyphosate to dry down the crop for faster harvest. "Tough canola doesn't cut as well and wants to wrap around the pea auger," he says. The pre-harvest glyphosate also dries down weed patches, if present.

Casavant says his straight combined canola has a slight yield edge over his swathed canola because seed size is larger and, by his experience, the standing canola actually lowers his wind loss risk.

PLAN AHEAD FOR STRAIGHT COMBINING

Straight combining is not a harvesttime decision for Casavant. Fields slotted for straight combining are part of his seed plan. "I know canola takes longer to mature for straight combining, so I choose land we can get seeded early and that we can grow Liberty Link on," he says. Weedier fields that need a clean-up get Roundup Ready varieties.

A 2005-08 Canola Harvest Management study led by Paul Watson of Alberta Research Council (now Alberta Innovates) supports the idea that successful straight combining takes advance planning. "The most important factor for increasing potential yield and

(left) The Austrian company Biso will introduce its new aluminum UltraLight 800 canola header next year. It has an adjustable cutterbar that can move forward up to 800 mm (32") so canola pods shattered by the reel will spill onto the header platform, not onto the ground.

decreasing the risk of straight-cutting is nitrogen fertility. Producers need to apply full fertility, or potentially excess fertility, to be able to straight-cut," the report says. It also says that: "producers who straight-cut canola have generally seeded early and optimized potential yield through optimal nitrogen fertility, high seeding rates and early weed removal. These producers report increased yield and minimal shatter loss."

Watson says the study found that areas with higher yield potential were more likely to see a benefit from straightcutting canola. "So it's not just a matter of higher fertility," he says.

Casavant looks at profitability and logistics as motivation to straight combine canola. The key economic factor for him is manpower. The swather travels 5 mph, the same as the combine, so it requires a lot of hours. "Manpower is hard to come by," Casavant says.

SEED TECHNOLOGY ADVANCES

While more growers experiment with straight combining canola, thereby building the on-farm experience base, technology is also at work to lower the risk.

Two seed companies will soon launch canola varieties with reduced pod shatter and increased pod retention. Bayer CropScience will have InVigor L140P available for 2014, and Pioneer Hi-Bred ran field scale trials of its potential varieties this summer.

InVigor L140P's value is in its "freedom and flexibility" when it comes to harvest timing, says Blaine Woycheshin, manager of InVigor seed with Bayer CropScience. Under good growing and harvesting conditions, InVigor 5440 may slightly out-yield L140P, but if swathing is delayed, or if there is wind after swathing, or if straight combining, L140P out-yields 5440 in Bayer trials.

Woycheshin stresses that L140P is about flexibility – it's not just for straight combining. Growers with a lot of acres often have to cut some canola too early to get everything done. With L140P in the canola rotation, Woycheshin says growers can leave that variety to swath later, say at 70 to 80 percent seed colour change, or leave it to straight combine. This allows the grower to move the whole swathing window later, providing overall larger seed and higher yield.

Dave Harwood, technical services manager with Pioneer Canada, makes a similar comment about Pioneer Hi-Bred varieties with a new trait for reduced pod shatter and reduced pod drop. "The greatest near-term benefit for this trait is that it allows producers to not swath as early as they have been to cover acres," he says.

Whether you swath or straight combine, the longer you leave canola intact, the greater the seed fill, and hopefully the greater the oil content and quality, says Harwood. "It will be a very nice fit for straight combining as well," he adds.

Chris Holzapfel, research manager with the Indian Head Agricultural Research Foundation, is currently testing canola varieties for straight combining suitability. "If field research can show a significant reduction in losses with new shatter-tolerant



Brett Casavant farms with his brother Vince at Tisdale, SK.

varieties, this will go a long way toward helping growers straight-combine with confidence," he says.

MACHINERY TECHNOLOGY ADVANCES

Biso makes specialty combine headers to straight cut brassica oilseed crops. The key feature is an adjustable knife position. The cutterbar can slide out in front of the reel so when the reel hits dry canola pods, they shatter onto the header pan and not onto the ground.

Biso will launch a new model, the UltraLight 800, next year. The aluminum header will come in sizes up to 40-feet wide and have a flex option, so growers can also use it for cutting cereals, pulses and soybeans.

Robert Breckner, who farms at Grandview, MB, is the Biso sales rep for Canada. He says he has seen quite a few more growers try straight combining canola over the past few years. "For those who haven't tried it, the new shatter tolerant varieties should make them not so worried about it," he says.

Zürn makes "Raps Profi," a cutting platform extension that fits headers from most combine manufacturers.

continued on page 8



- The extension is put in front of the
- conventional header, and has its own
- horizontal knife and integrated vertical
 cutters on each end.

After-market add-ons, such as deflector shields at the top of headers and "pea augers" like the one found on Casavant's MacDon, are also available.

Craig Mosher, marketing specialist with John Deere Harvester Works, says many John Deere customers who choose to straight cut canola use either an auger or draper header.

"At John Deere, I am not aware of any evidence to suggest one way is better than the other. It seems to be customer preference," he says.

The Ontario Canola Growers Association ran a study in 2012 to compare shatter loss and yield differences between three straight cut headers. At a one-site-year field demonstration site, they compared a New Holland 35-foot CF740 flex header, a 40-foot Case IH draper header, and a modified 30-foot John Deere 930 header with the flex pan removed and replaced with a solid pan that has an 18-inch table extension. The modified header also had a vertical side cutter on the right divider. Seed loss was 76 percent less with the modified header and 60 percent less with the draper header when compared with a regular flex header.

Bryan Nybo, a research specialist with Wheatland Conservation Area at Swift Current, SK, has also compared headers for straight combining canola. Based on his research, Nybo says Biso-style headers with the knife out front of the reel appear to reduce shatter losses but he adds that work with headers needs to be done under a variety of conditions for multiple years. Reel position should also be looked at more closely, he says.

"We must also keep in mind that improving header types for straight cutting only reduces losses during the harvest operation and does nothing to prevent shattering before harvest," Nybo says.

KEYS TO THE DECISION

The decision to straight combine canola comes down to a personal balance of risk. It won't be for everybody.

With straight combining, seed has time to fully develop, making for higher seed weight and blacker appearance. Also, straight combining does not require the time and manpower to swath.

However, standing canola can take longer to be harvest-ready, and when it is ready, growers have a fairly narrow window to get the job done before shattering losses become excessive. Then, even when seeds and pods are "ready", stems may be somewhat tough,

TIPS TO LOWER STRAIGHT-COMBINING RISK

- Use an adequate seeding rate. A uniform adequate stand will ensure that the fields mature as evenly and early as possible.
- 2. Fertilize for a high-yielding crop.
- 3. Choose seed varieties with improved tolerance to straight-combining.
- 4. Control weeds and disease. Sclerotinia stem rot and alternaria can dramatically increase shattering. Green weeds slow the harvest process.
- 5. Careful with desiccant. Research by South East Research Farm in Redvers, Saskatchewan found that Diquat desiccant significantly increased green count compared to untreated swathed and straight combined plots.
- 6. Harvest as soon as possible after the seed falls below two percent green content and is dry enough to store.
- 7. Optimize header reel and knife position, speed settings, and any other combine settings that may reduce shattering losses.
- Aerate straight-combined canola for at least a day or two after combining. Green or wet plant material often makes its way into the sample.

Chris Holzapfel, research manager with Indian Head Agricultural Research Foundation, provided most of these tips.

making the combine work harder. Pre-harvest glyphosate can help dry-down non-Roundup Ready canola, but this may not be necessary. One farmer that Watson followed during his study did not use a dry-down herbicide and still had success with straightcombining. But fields have to be clean. Green weeds slow the harvest process. Finally, straight combining losses can be higher, which counteracts the yield benefit of plumper seeds.

Rob Gulden, associate professor in Plant Science with the University of Manitoba, led a 2010-12 field survey to meticulously measure post-harvest losses. Five Saskatchewan growers who participated in the survey actually straight combined and swathed in the same year, allowing a direct comparison. On those five farms, yields were almost identical for both treatments, but the straight combined canola had slightly higher losses on the ground.

Those are the reasons why most growers, so far, remain loyal to the swather. Swathing offers more flexibility when it comes to harvest timing. Canola maintains quality in the swath, so can be combined when conditions are right and the grower is ready. Also, growers are used to swathing canola, so it offers the comfort of experience.

However, swathing does have risks of its own. The longer canola sits in the swath, the higher the risk of heavy winds blowing the swaths, increasing shatter losses and making harvest much more difficult. Bunches left by the swather can slow the combining process. Swathing too early increases the risk of yield loss, quality downgrade and lower oil content. The Watson study found higher green in the swathed canola, although quality in general was similar for both treatments. Also, as Casavant expressed, swathing is another step, requiring more manpower.

When asked what is holding growers back from straight combining canola, Holzapfel lists risk, logistics and inexperience. "In my opinion, straightcombining is riskier than swathing under most conditions, however actual results can certainly vary. With respect to logistics, swathing typically allows for earlier harvest, makes it easier to time and plan for harvest operations, and combining as early as possible is less critical with swathing," he says. To overcome inexperience, Holzapfel recommends starting slowly with one or two fields and swathing the rest.

Casavant is among the 20 percent of growers who have tried straight combining, and he expects to straight combine a larger percentage of his acres each year. As the pool of grower experience increases, and as new seed and machinery technology comes along, we can expect straight combining to play a larger role in canola harvest. A harvest program that includes the straight combining option will allow canola to stand longer and fill more, hopefully reduce wind losses, and provide an overall increase in canola yields.

Jay Whetter is the editor of Canola Digest.

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InVigor® L120	InVigor® L135C	DEKALB® 73-15 RR	InVigor® L130		DEKALB® 73-45 RR	DEKALB® 72-65 RR	CHECKS	CANTERRA 1990 CANTERRA 1960	InVigor® L252*	Nexera [™] 2012 CL	CANTERRA 1970	Nexera [™] 2016 CL	Nexera™ 1012 RR
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Maximizing canola production is all about informed decision making.

Every skilled and successful farmer is a master at weighing options. From seed selection through harvest, countless key decisions are necessary to optimize resources and maximize crop yield and quality. One of those key decisions is selecting the canola varieties best suited to your unique farming operation. Given how quickly crop science and canola variety options are changing, it pays to stay informed on how well the top canola varieties are performing in your area.

One way to stay apprised of canola yield performance is to review results gathered under actual growing conditions. For the past four years, Alberta Financial Services Corporation (AFSC) has published an annual report of crop yields broken down by variety and geography. Called Yield Alberta, this listing is a summary of data collected from every insured acre across Alberta.



"Our priority is to offer relevant, variety specific, field-level yield data in an unbiased format," says Dean Dyck, a program development analyst with AFSC and co-writer of Yield Alberta. "It's probably the best source of information available for specific varieties and specific locations."

Historical yield performance data is based on AFSC's 22 Risk Areas, making it relatively simple for growers to compare yield performance of the top canola varieties grown in their area. You can visit the AFSC website at **www.afsc.ca** for more information on aggregated insured acres data.

For specific canola yield performance in a specific geography, Yield Alberta offers an interactive experience. Visit **www.agric.gov.ab.ca** to see how data can be compared by variety and searched by township, soil zone and crop risk area.

In addition to yield, consider other agronomic traits when selecting varieties. For example, farmers who operate large farms may prioritize days to maturity.

"By putting a shorter days to maturity variety in a couple days before you plant the late maturing variety, you can get upwards of a week between them at harvest," thereby spreading the swathing time workload says Shawn Senko, an agronomy specialist with the Canola Council of Canada (CCC).

Likewise, growing varieties with differing days to harvest will reduce your vulnerability to a heat wave at full flower, or an early season frost. A report on the CCC's variety performance trials can be found at **www.canolaperformancetrials.ca** which includes both yield and other agronomic characteristics. Once varieties are selected and growing, maximizing productivity comes from knowing when to swath. Until recently, producers were advised to swath at 10 to 30 per cent seed colour change. However, within the last ten years, research has shown later swathing – once 50 to 60 per cent of seed-coats change colour – results in optimized yield and quality.



Remember too that today's canola tends to be a much bushier plant with significant yield potential on side-branches.

"As we've gone to hybrid varieties, farmers are seeding a little lighter so have a little thinner stands that tend to branch more. If you have a lot of the crop on the side-stems, you have to err on the later side since they develop more slowly," says Murray Hartman, a crop specialist with Alberta Agriculture and Rural Development.

Finally, remember to cross your fingers. Farming is art, science, and a hefty dose of Mother Nature's whims.



*Check varieties for Invigor L252 and Invigor L261 are 5440/45H29.

EYE IN THE SKY

By Bruce Barker

Stored canola needs regular monitoring to make sure it's not heating. The latest technology in bin monitoring does the checking for you and texts an alert when cables detect a potential problem.

he unmistaken odour of heating canola wafting through the yard last fall was puzzling to Warren Kaeding of Churchbridge, SK. He had checked his bins frequently and all were dry and cool a few weeks before. Kaeding did have temperature cables in the bins, but busy with other chores, he hadn't recently hooked up his handheld digital monitor to the bins to check on the temperature. Another day went by and the smell was still there, so he thought he better have a look.

"The one bin was incredibly hot. The temperature was something like 60 or 70°C. We had already taken about 500 bushels out of the 3,500 bushel hopper bin, so I was really surprised it was spoiling," says Kaeding.

Kaeding immediately unloaded the bin using three separate trucks. He was able to get out the good, the bad and the ugly in three different batches. He lost a grade on some of the canola, but saved most of the bin from going feed or worse.

BIN MONITORING GOES REMOTE

Like many farmers, Kaeding had been monitoring his bins, but with the canola having stabilized at a safe temperature, he prioritized other jobs on the farm over his weekly checking of the bins. However, new monitoring technology is automated with wireless readings of temperature and moisture so that Kaeding and other farmers don't have to manually check their bins.

Kyle Folk launched IntraGrain Technologies in June 2012. His Bin-Sense system is wireless and automatically monitors cables in bins through a cellular network that links back to the IntraGrain website. Farmers can log in to view the bin data anytime or anywhere using the Internet or mobile app on a smart phone. If a pre-determined threshold is breached, a text message is sent to the farmer to alert him of a problem. In addition to temperature, the system also provides a bin level indication and sends text alerts if a bin is being emptied – helping notify farmers if grain is being stolen.

"You just never know what is going to happen in the bin. I thought an automated system that could monitor bins remotely would help farmers avoid losses."



Warren Kaeding has monitoring cables in his canola bins, but after canola temperatures had cooled late last fall he quit looking as closely. It almost cost him.

One master unit is set up at each yard site, and a remote at each bin wirelessly relays information to the master unit. The Bin-Sense system does not require hard-wired electricity to run the system. Instead the remotes use solar power and a AA lithium ion battery system with a lifespan of approximately two years. The master system uses a larger lead acid battery with a solar trickle charger.

The motivation for Bin-Sense was an issue similar to Kaeding's experience. Folk's father had put canola in a 5,000-bushel flat bottom bin at six percent moisture, although at a very high temperature. His dad monitored the bin throughout the fall, and by November 19, the temperature had fallen to 18°C. However, two weeks later the temperature had shot back up to 32°C.

"You just never know what is going to happen in the bin. I thought an automated system that could monitor bins remotely would help farmers avoid losses," says Folk, who also farms near Regina, Saskatchewan. "There are other systems out there where you have to manually check the sensors, or even just stick a rod in the bin, and they all work, but they require a farmer to regularly check on the bins. Some farmers are very vigilant, but it is easy to become too busy to regularly check the bins."

The Bin-Sense system is sold through a dealer network. The monitoring system can be retrofit onto existing temperature cables, or can be installed with new cables. Cost of installation depends on the number and size of bins.

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GET YOUR BINS EXPORT READY

With over \$1.9 billion worth of canola seed exports to Japan last year, Canadian canola growers are well advised to observe Japan's food safety requirements. The Japanese industry is very concerned over any food safety issues, including exposure to ruminant protein (due to concerns over BSE in beef) and also pesticide residues, especially those that are applied to stored canola or empty bins.

"One of the issues we always reinforce with growers is that although malathion is registered for use in Canada for empty bin treatment for stored product insects, it should not be used in bins that will be used to store canola because it can result in residues in the canola that will be rejected by our buyers," says Canola Council of Canada agronomist Kristen Phillips at Brandon, MB.

If stored grain insects are a concern, an alternative is diatomaceous earth. Marketed under trade names Protect-It and Insecto, diatomaceous earth is a soft, silica type rock that crumbles into a fine powder. When applied to grain bins, the product damages the cuticle of the insect, reducing the insect's ability to retain moisture. The insect eventually dies of dehydration.

As part of bin preparation in the fall, Phillips says farmers should also ensure that the bin is free of alive or dead rodents and other animals that might contaminate it. •

- The Bin-Sense website has a section
- where farmers can request a quote.
- 14 A yearly monitoring subscription charge
 - runs from \$120 to \$240 per year roughly 10 to 20 bushels of canola.

"We're in year two of sales. Last year we sold out and interest is high again this year," says Folk.

MiFarm.ag Management Inc. of Calgary also offers a remote storage monitoring system. They are currently partnering with UFA in Alberta in a pilot project to demonstrate the technology. The **MiFarm Asset Management Solution** monitors the temperature, humidity and storage level of grain in a farmer's bins, and provides regular updates the farmer can access from any web-enabled computer, tablet or smart phone. UFA and MiFarm will establish a number of new demonstration installations of the MiFarm technology in central and southern Alberta with UFA customers. Results from these demonstration installations are expected to be shared in late 2013 and early 2014.

COMPLETE AUTOMATION AND MONITORING POSSIBLE

Another player in the game is Opi Systems of Calgary, AB and Lenexa, KS. Twenty-five years ago they brought the first temperature sensing cables for monitoring grain condition to Western Canadian farmers. In 2011, they introduced a monitoring cable that provides both moisture and temperature readings.

Many farmers already use Opi Systems' StorMax digital handheld monitor to measure temperature and grain moisture manually. StorMax plugs in to each bin or bin group, and can display 32 sensors per screen. As a basic monitoring system, the monitor and cable system is a convenient way to manually monitor grain facilities storing up to 100,000 bushels of grain.

A step up in monitoring is Opi Systems' Integris Basic. This system is a PC-computer based monitoring and alarm system. Monitoring cables sense temperature, moisture and insect activity inside the bins. The monitor at the bin communicates wirelessly or by wired connection back to the computer. Alarms can be set for high limit, rate of rise and system status, and notifications can be sent by email, text messaging, on-screen display or on-site at the bin.

Going one step further is Integris Pro. It allows farmers to monitor and control grain conditioning operations right from their PC computer. Integris Pro can control aeration fans, heaters and roof ventilation. The ability to control aeration allows farmers to reduce the risk of spoilage and achieve optimal moisture content through drying or rehydration. Farmers are able to automatically condition grain to prevent spoilage, or bring overly dry grain back up to a higher moisture content so that they can achieve a higher bushel weight when selling the grain.

Opi Systems claims that the combination of moisture monitoring and automated aeration can save up to 80 percent in energy costs by only running the fans at the right time.

Looking back on the experience, Kaeding appreciates how close he came to losing \$30,000 worth of canola. He is going to step up his monitoring, and ensure that it remains a priority. "We caught it just in time," says Kaeding. •

Bruce Barker is a freelance writer who specializes in agricultural production. He lives in Bragg Creek, AB.

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HARVEST SCOUTING

By Jay Whetter

Growers can learn a lot about the season and what to improve for next year by taking a close look at canola crops before and during harvest. That's the time when weed escapes are most obvious, and when diseases are easiest to see. These four growers describe their harvest scouting practices.



JOHN BERGER Nanton, Alberta

John Berger farms with his son, Brad, and they scout for weeds all season long, but especially at harvest time. Running the swather gives John a good view of weed escapes. "If I'm not the guy swathing the whole field, I at least open it and do the headlands so I can see weeds that creep in from the edges," John says. "I watch closely. I want to catch weed issues early." He keeps notes on his iPhone to remember areas that need attention. Brad keeps a detailed log of field history for decision-making.

"I'm very concerned about weed resistance," John says. "We never use the same product groups on a field two years in a row, and we're starting to use some of the granular herbicide products – Fortress, Edge, Avadex – again." He had Refine-resistant kochia on some rented land, he knows of Group 1 and Group 2 resistant wild oats in the area, and he's worried about local feed users bringing in feed from areas with glyphosateresistant weeds.

"If I can't save a few hundred dollars per quarter section by site-specific spraying, then I'm not paying attention."

– John Berger

John does the post-emergent spraying, and he'll also do post-harvest spraying when conditions are right. They hire a custom sprayer for pre-harvest. The Bergers have a two-tank sprayer that they "wouldn't be without." The main tank has the primary product and the smaller tank has a second high-end product to spot spray patches of tough weeds such as Canada thistle. That way they can use the best product for the patches, without having to blanket the whole field.

"If I can't save a few hundred dollars per quarter section by site-specific spraying, then I'm not paying attention," he says.



ADAM FINK Frenchman Butte, Saskatchewan

Fink sprayed 90 percent of his canola acres for sclerotinia stem rot this year after seeing heavy disease damage in his canola last year.

In July 2012, he had great looking canola crops but by swathing time it was evident his canola had suffered from sclerotinia stem rot and aster yellows. "While checking pods for seed colour change, aster yellows were so terrible it took me until the fifth plant before I found any decent seeds. The pods looked okay, but the seeds inside were like pepper." And then, while swathing, he found many dead ripe plants among the greenish healthy plants - evidence of sclerotinia stem rot. "I also tried to check stems for blackleg, but they were so badly damaged by sclerotinia stem rot, it was hard to tell."

Fink says 2012 was a wake-up call. "We had never really had sclerotinia as widespread as last year, so spraying never seemed economical."

"If I take time at harvest to check, I learn where I can take corrective action. If I don't check, then I have to wait another whole year to learn the lesson."

– Adam Fink

This year, Fink's farm had been somewhat dry leading up to flowering, but his crops were looking good. He had budgeted to spray, but he wasn't sure the conditions would provide a return. "I still feel spraying for sclerotinia is like



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SASKATCHENAN

playing craps. You might win, you might lose," he says. Then it started to rain, and he went out and sprayed almost all his fields. He left the earliest field, which was already passed 50 percent flowering, and he also left a few check strips. He can use these untreated areas to test how well the fungicide worked.

"I'm definitely a lot more diligent in checking for disease at harvest," Fink says. He cuts stems to check for blackleg. He assesses sclerotinia damage. He pulls up roots looking for clubroot galls. "I dread the day I find them," he says.

Harvest scouting gives him a report card on his disease management for the year, and allows him to identify any changes needed for next year. "If I take time at harvest to check, I learn where I can take corrective action," he says. "If I don't check, then I have to wait another whole year to learn the lesson."

WILLIAM VAN TASSEL Hébertville, Quebec

Van Tassel has had clubroot on his farm since the late 1990s, and he checks his fields every July and again at harvest time to make sure his disease management is working.

"In July, I pull out plants that are starting to wither. These plants will usually have clubroot galls," he says. "Then at swathing I check plants that have dried up entirely to see whether they have sclerotinia or clubroot." Clubroot is his top canola disease. "We don't have a big problem with sclerotinia, we don't have blackleg, and we don't have aster yellows, but in this area we have trouble finding fields that don't have clubroot," he says.

Van Tassel has been growing resistant varieties L135C and 45H29 over the past few years, and they have been working to keep clubroot under control.

He also grows canola in a four or five year rotation with wheat, soybeans and sometimes corn. Rotation helps but will not eliminate the disease. When he first noticed clubroot in a field in the late 1990s, he didn't grow canola again on that field for eight years. The first field after eight years was okay, Van Tassel says, "but when I grew canola on that field four years later, clubroot was back again."

Van Tassel started growing canola in 1988. He has Agriculture and Agri-Food Canada's Normandin research farm nearby, which has helped growers in the area with canola research, and with testing management tools for clubroot.



MICHAEL VANWYNSBERGHE Crystal City, Manitoba

Michael Vanwynsberghe and his father Maurice farm in an area where blackleg has reappeared, and so watching for disease from the swather is just something they do. "We're on a fairly tight canola rotation, and we know we have an issue with blackleg," he says. They start checking fields for blackleg severity right after flowering ends, looking for lesions at the base of stems. Then from the swather, they look again to determine which fields may need a longer break from canola. To double check, Michael will go back the following year and look for blackleg pseudothecia on old canola stubble. "It's always persistently there," he says.

To manage for blackleg, the Vanwynsberghes may add soybeans to the rotation to give canola a longer break. This year they also applied protective fungicide on all canola at the 6-leaf stage. They had been tank-mixing fungicide with herbicide at the 2-4 leaf stage.

"It seemed to be doing something, but we left check strips and the benefit did not seem significant," he says. "This year, we started spraying at the 6-leaf stage when the ground is covered to get more benefit out of the fungicide. We use fungicide because we feel it controls the severity of blackleg so the disease doesn't get any worse."

Their canola fields usually get another fungicide application during flowering to manage sclerotinia stem rot. Michael has gotten used to distinguishing blackleg from sclerotinia stem rot at harvest time, with blackleg at the base of the stem, causing lodging, and sclerotinia causing white brittle stems higher up the plant.

The Vanwynsberghes' harvest crop checking also includes a look out for weeds, especially thistles. They will use post-harvest glyphosate on Liberty Link canola to control thistle patches, for example, that may have escaped in-season applications.

Jay Whetter is the editor of Canola Digest. For more on harvest scouting, go to www.canolawatch.org and look in the archives for September articles on that topic. Canola Watch is a free email agronomy newsletter from the Canola Council of Canada. The simple sign up form is at the same website.



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DIAGNOSTIC DILEMMAS

By Jay Whetter

A picture can tell a thousand words, right? Well, not if it's blurry. Or needs to be zoomed in to show detail. Or without context. Photographs can be handy in diagnosis, especially when the agronomist can't get to the field, but photographs need to be clear to be useful.

nap. Send. Help? Smartphones are handy diagnostic tools. You can talk, text and email an agronomist, check background information on the Internet, read Canola Watch, and use the Canola Diagnostic Tool. You can also take a pretty good photo of an insect, disease lesion or discoloured leaf and send it to a Canola Council of Canada (CCC) agronomist for identification and help with management decisions.

At least that's the theory. CCC agronomists often get photos by email with a desperate "What is this?!?" message, and they'll look at the photo and answer (to themselves), "I dunno. Bird droppings?" Sometimes accurate diagnosis can be done by photo, as you'll read in the first dilemma. Other times, the photo provides no benefit at all. In these cases, the reason often stems



From the top of the leaf, downy mildew lesions can look like blackleg lesions.

from the photo's poor quality, not the depth of the dilemma.

NO, NO. SHOW ME THE OTHER, OTHER SIDE.

A canola grower from Alberta called his CCC agronomist in early July and said he has blackleg on nearly every canola plant uniformly across a field. Blackleg was fairly common in 2012 in Alberta and canola on canola could be showing heavy damage in 2013, but this sounded extreme.

The grower then said the field had been in hay for the previous 10 years or more, and that most of the land around that field was in hay. Can't be blackleg, the agronomist thought. Blackleg is specific to canola, spores don't carry that far, and rotation is an excellent way to manage the disease. Even if blackleg



The cottony mycelial growth of downy mildew is clear to see on the underside of the same leaf.

was rampant on the field 10 years ago, the vast majority of resting spores would be long dead by now. Even if some remained viable that long, infection certainly would not hit every plant uniformly across the field. Blackleg spores could blow in from a neighbouring field, but again, damage would not be uniform. The agronomist didn't want to jump to conclusions, so he dug deeper.

"What does the damage look like?" he asked. The grower described it as tan-brown lesions, some with pepperlike spots. He added that two other people had come to the field and declared the problem blackleg.

Now the CCC agronomist was really puzzled. The field was a three-hour drive away, so he asked the grower to send a couple photos before he got in the truck for a long road trip. "Sure. I have an iPhone 5S. I'll go take a photo right now," the grower said.

He sent two photos. The first was from the top side of the leaf and was way too blurry. Dang! The second photo was better, but it was from the underside. "I thought it was useless at the time," the agronomist said. He couldn't make any headway with the photos. But before he emailed the grower to ask him to try again, he forwarded the photos to a CCC colleague who had a lot of experience with plant diseases.



The sender is wondering if this is a lygus bug. It can't be determined with this photo because the smartphone was held too close and couldn't focus.



This photo is taken with the same smart phone, moved back a couple inches. The focus is a bit better, but still not ideal.

The colleague took one quick look at the underside angle and responded immediately. "That's downy mildew."

He was right on. Downy mildew does affect canola in wet conditions, producing an irregular lesion on the top side of leaves and, more important for diagnosis, cottony mycelial growth on the underside of leaves. Turns out the photo from the bottom side of the leaf was key to this smartphone-based diagnosis.

Many cases of downy mildew popped up across the Prairies in 2013. It rarely causes yield loss, especially when confined to lower leaves. The grower was relieved, and the crop recovered.

IS THAT A PURPLE LESION OR A LADYBUG LARVA?

With a blurry photo, an agronomist has no idea what she's looking at.



This photo was taken with a mid-price digital camera with a macro setting for better close-up focus. With this photo, an entomologist identified it as an alfalfa plant bug, not a lygus bug. The main host plants of alfalfa plant bug are alfalfa and red clover, not canola. On occasion, they can be worth controlling in alfalfa grown for seed.



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The purplish blob in the middle of a photo could be anything. Here are a few essentials to make photos more effective for long-distance diagnosis:

1. Focus. Make sure the thing you want to show is in focus. Take a look at the photo before you send it. Is it sharp? All cameras are challenged to take sharp close-ups, especially when the subject is small and the lens is 2" away. Choose the camera's "macro" setting if you have that option. With some cameras, you may be better to back away from the insect or lesion a few more inches to achieve good focus. The subject may be smaller in the view finder, but if the focus is better, the agronomist receiving the photo can zoom in for a better look.

2. Photograph the subject from a few angles: top, side, front, back, close-up, and mid-range. Include long range if

an overall field shot seems useful, as it could be with spray efficacy or seeding issues. If shooting leaf damage, photograph the topside and underside of leaves, as the grower with the downy mildew problem did. Send a variety of angles to the agronomist.

3. Provide context. In the email, describe how an insect moves, what the feeding looks like, where in the field it's found, and crop staging. Describe disease lesions in detail, including location on the plant, colour, shape and whether there are spots inside the lesion. Include field details, such as crop rotation, pesticide history, fertilizer use, soil analysis results, neighbouring crops and the moisture situation. The more detail the better. •

Jay Whetter is the editor of Canola Digest. For more on harvest scouting, go to www.canolawatch.org and look in the archives for September articles on that topic. Canola Watch is a free email agronomy newsletter from the Canola Council of Canada. The simple sign up form is at the same website.

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CARP: YOUR GROWER-FUNDED RESEARCH PROGRAM

By Donna Fleury

Western Canadian canola growers have invested in the Canola Agronomic Research Program since 1985, and the collaboration has led to improved canola production and on-farm profitability.

he Canola Agronomic Research Program (CARP) has been supporting agronomic research in western Canada for over 25 years. Research priorities and project approvals are made collaboratively by the provincial grower organizations: Alberta Canola Producers Commission (ACPC), SaskCanola and Manitoba Canola Growers Association (MCGA). Most projects are co-funded so that each organization can maximize their research dollars. Over the past 15 years, 94 projects have been funded with over \$7 million dollars invested in collaboration with researchers from industry, universities and provincial and federal governments.

The Canola Council of Canada (CCC) administers CARP on behalf of the three grower organizations. "We are pleased to be involved in CARP, which is a successful program providing growers with better agronomics and economics on their farms, and the scientific research to support new agronomic practices and tools," says Gail Hoskins, CARP coordinator with the CCC. "This collaborative program is about growers' dollars at work."

CARP addresses agronomic issues for Prairie canola growers who have many similar concerns across different soil and agro-environmental zones. "The whole purpose of the program is to solve problems around pests and diseases and find solutions for problems on the farm," explains Ward Toma, general manager of the ACPC.

Although the priority might be to solve a disease or insect problem, sometimes those different challenges are addressed through related seeding and input trials. These are separate research projects that provide integrated outcomes for growers.

"CARP has a pretty good track record, with a return on investment of about 20 to 1."

– Pat Flaten, research manager, SaskCanola

"We usually share the funding for projects, unless there is an issue that is more specific to Alberta," adds Toma. "For example, cabbage seedpod weevil has ended up being mostly an Alberta issue. However, clubroot started in Alberta but is being closely watched by Saskatchewan and Manitoba growers, and their associations have funded research and mitigation efforts around solving this issue so they can be prepared as it starts to show up in their provinces."

For Manitoba growers, CARP provides the opportunity for a smaller organization to participate in larger agronomic research projects that may be difficult to fund on their own. "We are funding good research projects and pooling our grower money to do that," says Bill Ross, executive manager of the MCGA. "We hope growers will see benefits on their farms from this investment."

Ross emphasizes that potential projects must align with established grower priorities and strategic plans to be funded. Most projects are funded by all three partners but sometimes a Manitoba specific issue is funded by Manitoba on its own.

"There are obvious advantages to a program like CARP, most importantly the money invested by growers goes further by joining with other partners, and growers get more return from their buck," explains Pat Flaten, research manager with SaskCanola. "I think the real benefit of bringing multiple funding partners together is we can share and discuss concepts and get feedback from a variety of perspectives, which strengthens the projects and provides even more meaningful results and information. By leveraging our funding, we are getting things done that farmers care about and bringing benefits back to the growers."

CARP is also about reinvestment in the long-term future of the profitability of the industry, Flaten adds. "It has a pretty good track record, with a return on investment of about 20 to 1." •

Donna Fleury, P.Ag., is a freelance writer from Millarville, Alberta, specializing in agriculture and the environment.

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By Donna Fleury

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Genetic advancements for canola seed are an important research priority for the grower-funded Canola Agronomic Research Program (CARP).



This photo shows results from the flower blasting test. Both plants are Westar, with a cool chamber plant on the left (a) and a plant from the hot chamber on the right (b). This clearly shows the heat blast effect of hot days and nights. Selecting for heat stress could be a required feature of high-yielding canola cultivars.

he Canola Agronomic Research Program (CARP) has been supporting research in Western Canada for over 25 years. Funded by canola growers from Alberta, Saskatchewan and Manitoba, CARP supports research designed to improve canola production and grower profitability on the farm and to enhance the whole canola industry. Here are highlights of some recent genetic research projects.

SCREENING CANOLA FOR 'FLOWER BLASTING' TOLERANCE

Lead researcher: Malcolm Morrison, Agriculture and Agri-Food Canada (AAFC), Ottawa

Researchers have developed a simple test for flower blasting, which can be adopted by plant breeders.

In the field, air temperatures greater than 30°C during flowering cause reduced fertility, smaller seed size and lower yield in canola. Future climate change scenarios predict warmer temperatures for the major canola growing regions of Canada. In a threeyear project led by Malcolm Morrison with AAFC in Ottawa, researchers examined 47 canola cultivars from Canada and Australia for flower blasting or heat stress tolerance. They also developed a simple growth cabinet screening protocol to help breeders select for heat stress tolerant canola cultivars.

The 47 cultivars were screened to determine if they had greater heat tolerance, or produced more fertile pods when heat stressed, than the check Westar. The results from the test protocol comparing flowering plants in a control cabinet (15°C at night/20°C at day) and a warm cabinet (22°C at night/27°C at day) showed that 15 cultivars had greater flower blasting tolerance than Westar, 18 cultivars had similar tolerance and 14 cultivars had lower tolerance than Westar. Higher heat stress temperatures (greater than 27°C) need to be tested in future experiments.

Several of the canola cultivars examined demonstrated greater fertility than Westar in the warm environment and a less-than-10% difference in seed number between racemes grown in the warm and cool environments. These cultivars can be considered more tolerant to heat stress during flowering. The study indicates that selecting for yield in a hot environment, such as southern Ontario, may be an effective way of selecting for heat stress. This will be a required feature of high yielding cultivars in the future.

HAIRY CANOLA: FLEA BEETLE AND DROUGHT RESISTANCE

Lead Researchers: Margaret Gruber and Julie Soroka, AAFC, Saskatoon

Plant breeders and entomologists have developed "hairy canola" lines that have the potential to significantly reduce crop input costs and provide a more environmentally friendly option for flea beetle management.

Research led by Margaret Gruber and Julie Soroka at AAFC Saskatoon in collaboration with Peta Bonham Smith at the University of Saskatchewan has focused for the past 15 years on developing canola germplasm with protection against flea beetles.



The hairy canola on the left could provide a non-chemical solution to early-season flea beetle feeding. AAFC research shows the hairs provide a significant deterrent compared to standard napus canola on the right. Photo credit: M. Gruber, AAFC

Initially a hair (or trichome) gene from Arabidopsis thaliana, a close wild relative to canola, was introduced into the canola cultivar Westar. The new canola plants had 250 to 1,000 times more hairs on seedling leaves and stems than common napus canola. Laboratory and field studies at Saskatoon and Lethbridge showed that crucifer flea beetles didn't like feeding on this hairy canola, and feeding frequently occurred at levels equal to or less than on cultivars grown from insecticide-treated seed. The smooth fleshy cotyledons that emerge before the hairy stems and leaves were also resistant to flea beetles.

A second gene modification enabled the development of a new hairy canola line with longer hairs spread over a larger number of leaves. This new plant line also shows some resistance to diamondback moth. In the field, it grows as well as non-modified canola and has as good (or sometimes better) seed yield. Researchers recently turned their attention to germplasm collections to find plants with natural increases in hair density within canola and its related and domesticated wild species for developing a non-GMO hairy canola.

Hairy canola germplasm is the first stable host plant resistance developed in canola to deter feeding by crucifer flea beetles. This complex, multi-gene trait causes flea beetles to avoid the plant rather than poison them, making it less likely that flea beetles will be able to adapt or become resistant to it. The trait will likely have minimal negative effects on pollinators. Researchers plan to test how bees react to hairy canola. As well, they will determine whether the insulating effect of plant hairs protects the seedlings from wind desiccation and drought.

B. NAPUS LINES WITH REDUCED POD SHATTERING

Lead researchers: Saleh Shah, Alberta Innovates-Technology Futures and Habibur Rahman, University of Alberta, Edmonton

Improving pod shatter resistance in canola crops could significantly reduce harvest losses for growers. A four-year project, led by Alberta researchers Saleh Shah with Alberta Innovates-Technology Futures and Habibur Rahman with the University of Alberta, has identified canola lines with reduced pod shattering traits. Pod shattering genes were isolated from *Arabidopsis*, as well as from *Brassica juncea* in collaboration with Adrian Cutler at NRC in Saskatoon). Silique-preferred promoters were selected and introduced into *Brassica napus* lines.

First generation transformed canola plants grown in the greenhouse were assessed for pod shattering resistance and the most promising lines were selected and increased for field trials. Lines producing normal pods and reduced shattering in lab tests (50 to 80 percent less than control) were evaluated in a field trial with Canadian Food Inspection Agency authorization. In the field trial, several lines showed up to 30 percent reduced pod shattering compared to controls.

Researchers will make this new pod shatter resistant germplasm and the

knowledge gained through the project available to canola breeders for use in their breeding programs. Researchers have also identified genes in *B. napus*, which can be mutated to develop non-GMO canola with reduced pod shattering.

THE PR10 GENE FOR FLEA BEETLE RESISTANCE

Lead researchers: Nat Kav and Lloyd Dosdall, University of Alberta

Laboratory tests found that new canola germplasm modified to express PR10 genes shows great potential to reduce the susceptibility of canola to flea beetle attack.

Nat Kav and Lloyd Dosdall investigated the potential of introducing PR10 genes into *B. napus* canola lines to improve resistance to flea beetles. New canola transgenic lines with PR10 genes were compared with insecticide-treated wild type counterparts (Arabidopsis thaliana) for damage from Phyllotreta cruciferae (crucifer) and P. striolata (striped) flea beetle species. The study showed that the feeding damage caused by the crucifer flea beetle on the PR10 canola lines was significantly less than on the insecticide-treated wild type plants. However, the insecticide treated plants were more effective at reducing striped flea beetle feeding damage than PR10 transgenic plants. Only the insecticide treated plants resulted in any flea beetle mortality.

The study demonstrated the potential of using PR genes for reducing insect damage and improving resistance to the crucifer flea beetles in transgenic canola lines. Future studies will require field testing to determine how these new PR10 transgenic canola lines perform in field conditions. If successful, the PR10 lines will provide another option in an integrated pest management program. They will also provide an opportunity to reduce the use of insecticides and the potential for flea beetle resistance to insecticides. •

Donna Fleury, P.Ag., is a freelance writer from Millarville, AB, specializing in agriculture and the environment.



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hen significant trade negotiations were happening at the World Trade Organization, it dominated the headlines. With little progress there, new free trade negotiations are underway. Of these, the most far-reaching for Canada is the Trans Pacific Partnership (TPP). The TPP is a group of 12 countries representing about 38 percent of the world's economy.

The Canola Council of Canada (CCC) has been at the negotiations to improve market access for canola and ensure that trade barriers don't prevent growers from using the latest in seed and crop protection technology. Meeting stakeholders and negotiators from other TPP countries at the negotiations has helped bring attention to canola priorities.

"With countries that are ambitiously committed to trade, the TPP can improve market access for canola and raise the bar on how trade agreements make trade more predictable," says Jim Everson, vice president of government relations for the CCC. The CCC delivered this message to negotiators in a joint presentation on Canadian grain, oilseed and pulse priorities at the stakeholder day organized by the host government at the recent Peru negotiating round.

The TPP represents major economies in a fast growing region of the world. These include major grain-trading

WHY THE TPP MATTERS TO YOU

By Brian Innes

The Trans Pacific Partnership is a "21st Century agreement to facilitate trade and economic growth." Canada is at the negotiating table with 11 other countries, including the U.S., Japan and Mexico – key Canadian canola markets – making the Trans Pacific Partnership an important agreement for canola growers.



Delegates from the Mexican oilseeds sector visit the farm of CCC agronomist Kristen Phillips near Brandon, MB.

countries Australia, Mexico, the U.S., Canada, Japan and Singapore as well as Malaysia, Chile, Peru, Vietnam, New Zealand and Brunei. Japan, Mexico and the U.S. are large export markets for canola.

Canada joined TPP negotiations last fall, and 18 rounds of negotiations are now complete. TPP members are negotiating a regional agreement designed to grow and accept new member countries in the future. Political leaders have characterized it as a 21st Century agreement to facilitate trade and economic growth. And that's a key reason why it's important to canola growers.

"The TPP is important because it involves large markets and can lead the world in making science-based rules around biotechnology and non-tariff barriers to trade," says Everson. "This is important for growers because using the technology in Canada depends on our ability to export – and therefore the quality of regulation in importing countries."

On biotechnology, the CCC has been working to raise awareness of the need for international solutions for when low levels of a biotech trait appear in shipments to countries where that trait is not approved. The CCC is also working for commitments that will help bridge the gap created when crop protection products are approved in Canada but do not yet have maximum residue levels set in the importing country - meaning that zero or near zero tolerances prevail. Both instances create uncertainty and prevent growers from having timely access to new technology. They are issues that affect all grain commodities.

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That's why the CCC has been working with other commodity organizations to inform Canadian negotiators of the importance of finding solutions. With the risk of finding low levels of crop protection products and biotech traits similar across grains, oilseeds, and pulses, it makes good sense to cooperate and use resources efficiently.

"We're in this together," says Gord Kurbis, Environment Director of Pulse Canada. "On international issues such as LLP (low level presence) and MRLs (maximum residue limits), we see huge benefit in working together for the benefit of growers. It helps bring more attention to the issues and makes the best use of grower contributions."

In addition to keeping Canadian negotiators informed, Canadian commodity organizations are also working with commodity organizations

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in other TPP countries to build a common approach to trade. It's all part of the canola industry's long term market access plan, detailed in the CCC's *Market Access for the Future* report released earlier this year by the Canola Market Access Plan, a jointly funded program of Agriculture and Agri-Food Canada (AAFC) and the CCC.

Bringing together representatives from grower groups and the grain industry in the U.S., Australia, New Zealand and Mexico has helped create a good discussion on the importance of solving these issues in a trade agreement. (See the sidebar for more information on recent efforts with Mexican oilseed producers.)

"We've found there is a common understanding that seed and crop protection technology must continue to improve if we are to feed the world's growing "The TPP is important because it involves large markets and can lead the world in making science-based rules around biotechnology and non-tariff barriers to trade."

- Jim Everson, vice president of government relations, Canola Council of Canada

population without bringing more land into production," says Everson.

TPP negotiators have stated their intention to conclude an agreement in 2013. The CCC will be working closely with Canadian negotiators to ensure the agreement helps to improve market access for canola.

Brian Innes is market access manager with the Canola Council of Canada in Ottawa.



BUILDING INTERNATIONAL ALLIES

PERFORMANCE

In June, the Canola Council of Canada (CCC) and the Canadian Canola Growers Association (CCGA) hosted growers, farm leaders, equipment manufacturers and government officials from the Mexican oilseed industry. Their visit to western Canada gave them first-hand exposure to canola and how it's grown. It also provided an opportunity to learn how ongoing discussions in the TPP have the potential to promote science-based trading rules around biotechnology.

Mexican delegates appreciated getting their boots a little muddy while hearing how growers control weeds in biotech canola.

Mexico is one of the largest markets for Canadian canola – worth more than \$980 million in 2012. Most canola exported to Mexico is in seed form, which is then crushed in Mexico before finding its way to store shelves and feed mills. It has been a consistent market over the last several years, with canola oil having approximately 25 percent of the Mexican market for cooking oils. In sharing a mutually beneficial trade relationship, both countries are interested in rules that facilitate trade. In the case of biotech seeds, for example, these rules can be especially important when interest groups create fear that makes it difficult to have sciencebased policy. Though some biotech cotton and soybeans are grown in Mexico, there remains some opposition to biotechnology. The Mexican delegates visiting Canada had the chance to see and hear direct from Canadian growers about their experience with biotech canola.

"We had a great time showing them how we do things," says Dale Leftwich, a canola grower from Esterhazy, Saskatchewan. "There's nothing like meeting face-to-face and walking fields to build relationships." •



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CRUSH TRIPLES IN A DECADE

By Samara Hutton

Canada's canola crushing industry has invested in tremendous growth, keeping more value-added here at home.

anada's crushing industry has approximately tripled its annual crush over the past decade. In the 2011-12 crop year, crushings reached a record level of 6.99 million tonnes of canola seed, producing 3.13 million tonnes of oil and 3.97 million tonnes of meal.

The crushing industry transforms harvested canola seeds into oil and meal, which are then processed into a variety of products including oil for human consumption and for biofuel, and meal for use in animal feed. In doing so, the crushing industry adds value to the Canadian economy, increasing the value of products exported and contributing economic impacts and jobs.

Canada's 13 crushing plants have the capacity to crush about eight million tonnes of canola seed. In the past two years alone however, the domestic crushing industry has increased its investment in processing plants by nearly 40 percent, as crushers announce more major expansions and new builds. Once these come on-line, there will be between 10 and 11 million tonnes of

"The expansion is led by this industry's confidence in the future of the canola sector."

- Jim Everson, vice president of government relations, Canola Council of Canada

crush capacity for canola. This represents a remarkable change in the structure of the industry, and is an indication of the confidence and commitment of the crushing industry.

DRIVERS OF GROWTH

"The expansion is led by this industry's confidence in the future of the canola sector, with growing global market demand, strong Canadian production, and a commitment by industry and government to address trade barriers and maintain market conditions to support a growing industry that is highly dependent on exports," says Jim Everson, vice president of government relations for the Canola Council of Canada (CCC).

Vegetable oil consumption and demand for healthy edible oils around the world continues to grow. There is demand pull from new markets for specialty and higholeic oils, and government mandates create demand for biodiesel (particularly in the United States and European Union). This, along with rising global protein meal consumption and demand for canola meal in animal feed rations, positions the industry to capitalize on these opportunities for value-added exports with its increasing capacity.

Canada's strong canola acreage base and production growth provides the industry with the confidence that there will be sufficient amounts of canola seed for crushing. In 2012, over 21 million acres of canola were seeded – more than double the acres seeded a decade earlier. .

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OIL AND MEAL EXPORTS

Once processed, canola oil and meal is shipped by rail or truck from crushing facilities to markets in North America, or to ports for shipment to overseas customers. The vast majority of canola oil exports go to the U.S., China, and the European Union (EU). In 2011-12, the U.S. imported more than 1.4 million tonnes of canola oil, based on strong demand for premium quality vegetable oil (canola oil is the number two edible oil in the U.S. market) and continued demand for canola biodiesel through the Renewable Fuel Standard (RFS2). China imported over 820,000 tonnes of canola oil to meet growing vegetable oil demand, and the EU's biofuel mandates continue to drive demand for canola oil as a feedstock.

The U.S. continues to be the most important market for canola meal exports, with a significant share going to California's dairy market. In 2011-12, over 2.8 million tonnes of canola meal was exported to the U.S. Smaller levels of canola meal were exported to China and Mexico – 397,000 tonnes and nearly 50,000 tonnes respectively.

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BŪNGE

FORT SASKATCHEWAN, AB

Year opened: Rail line: CN Contact*: 780-998-1223 800-667-1223

Cargill

34

CAMROSE, AB

Year opened: Target completion is in time for the 2014-15 harvest Rail lines: CN and CP Contact*: 780-672-4710

Cargill CLAVET, SK

Year opened: 1996 Rail lines: CN and CP Contact*: 877-667-8211

LLOYDMINSTER, AB

Contact*: Mark Symington

Year opened: 1975

780-875-5554

Rail lines: CN and CP

RICHARDSON

LETHBRIDGE, AB Year opened: 2012

Rail line: CP Contact*: 403-329-5594

BŪNGE

NIPAWIN, SK

Year opened: Rail lines: CN and CP Contact*: 306-862-4686 800-661-3000

BUNGE HARROWBY, MB

Year opened: Rail line: CP Contact*: 204-773-3422 800-665-0499

Louis Dreyfus Commodities

YORKTON, SK

Year opened: 2010 Rail lines: CN and CP Contact*: 877-782-8882

RICHARDSON

YORKTON, SK Year opened: 2010 Rail lines: CN and CP Contact*: 306-782-4484 888-298-3344

MARKET ACCESS AND INTERNATIONAL TRADE

Alongside the crush industry's expansion is the need to ensure open market access for the oil and meal produced. The CCC works closely with government and industry to address market access issues, such as tariffs and other trade barriers that prevent the sale of value-added processed products.

For example, while Japan is an important and consistent market for canola, tariff escalation – higher tariffs on processed products than on seed exports – severely limits oil exports to Japan. Instead, canola seeds are exported, and the Japanese economy accrues the valueadded benefits of crushing domestically. Consistent with the expansion of crush and oil export capacity, the CCC will try to decrease oil tariffs relative to seed in all markets. Canada's current free trade negotiations with Japan, the EU and the 11 countries of the Trans Pacific Partnership all offer the opportunity to eliminate tariff escalation.

MARKET DEVELOPMENT

The CCC's promotion efforts support market development – telling the world about the advantages of canola oil and meal will help the industry continue to experience strong demand.

The health and culinary benefits of canola oil are promoted to consumers globally through CanolaInfo – the leading information source about canola oil for consumers, health professionals, chefs, media and educators. On the meal side, as an example, the CCC is promoting and sharing the results of dairy feeding trials with industry and customers, to demonstrate the value of the meal and reveal opportunities in global markets.

INNOVATION

Innovation continues to bolster confidence in the crushing industry, as research is carried out on increasing oil content through seed development and agronomic management, increasing yields, and increasing the value of oil and meal products.

The CCC, supported by the federal government, has invested in clinical trials to show the health benefits of canola oil. The industry is investing

AAFC forecast estimates the 2012-13 crush at 6.5 million tonnes, and the 2013-14 crush at 6.6 million tonnes.

Source: AAFC Outlook for Principal Field Crops, June 14, 2013

ANNUAL CANADIAN CRUSH STATISTICS

Year (August-July)	Seed Crushed (Tonnes)	Oil Produced (Tonnes)	Meal Produced (Tonnes)
2002/03	2,224,913	925,899	1,389,744
2003/04	3,389,554	1,395,242	2,120,478
2004/05	3,030,929	1,246,742	1,903,816
2005/06	3,422,621	1,463,231	2,025,153
2006/07	3,578,607	1,551,245	2,108,421
2007/08	4,144,449	1,738,740	2,495,032
2008/09	4,279,886	1,838,756	2,487,117
2009/10	4,787,834	2,107,242	2,682,789
2010/11	6,310,403	2,767,910	3,568,095
2011/12	6,999,315	3,127,131	3,970,310
2012/13 YTD (August-June)	6,215,339	2,698,929	3,690,772

Source: COPA, Statistics Canada

Year opened: 2010 Rail line: CN Contact*: 819-294-1342 35

BECANCOUR, QC

BUNGE **ALTONA, MB**

VITERRA

Year opened: 1998 Rail line: CN

STE. AGATHE, MB

Contact*: 877-882-2565

Year opened: Rail line: CP Contact*: 204-324-6481 800-203-9576

significantly in specialty high-oleic canola oils with increased stability, which appeals to the commercial food processing industry. These innovations increase value and open doors to new market opportunities.

Research is uncovering the greater value potential of canola meal, which was previously regarded as a low-value by-product. Dairy feeding trials have shown that canola meal can increase milk production by up to a litre per cow per day, and research on its use as a feed ingredient for monogastrics can show higher inclusion rates and value than the industry is generally aware.

Samara Hutton is market development coordinator with the Canola Council of Canada.

ADM

WINDSOR, ON

Year opened: 1979 Rail lines: CN/CP/CSXT Contact*: Steve Combres 800-265-7310 519-972-8100

BŪ̂NGE HAMILTON, ON

Year opened: Rail lines: CN and CP Contact*: 905-527-9121 800-535-3898 ext 7920 or 2027

*For growers who want to contact the plant to sell/deliver canola.

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ABreport



LEADERS WANTED FOR THE ALBERTA CANOLA PRODUCERS COMMISSION

The Alberta Canola Producers Commission (ACPC) is seeking four canola growers to serve as directors. Directors are needed for **regions 1, 4, 7 and 10** this year.

Alberta is divided into 12 regions and each elects a director to represent the growers in that region. The Board of Directors meet as a whole four times each year. The Board of Directors is guided in decision-making by recommendations from four committees: Agronomic Research, Market Development, Grower Relations and Extension, and Administration.

Who may become a director of ACPC?

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Anyone who has paid the ACPC a service charge on canola sold since August 1, 2011 is an eligible producer and can stand for election as a director.

An eligible producer can be an individual, corporation, partnership or organization. Eligible producers must produce canola within the defined region in order to be nominated, but do not have to reside within the region.

For detailed descriptions about the ACPC regions where elections are being held visit **www.canola.ab.ca** or call the ACPC office at 1-800-551-6652.

Nominations for the position of director must be filed in writing at the ACPC office, #170, 14315-118 Avenue, Edmonton, Alberta, T5L 4S6, or by fax 780-451-6933 on or before October 31, 2013.

For more information, contact Ward Toma, ACPC General Manager at 1-800-551-6652 or email ward.toma@canola.ab.ca •



CHASE DUFFY AND THE ART OF STORYTELLING

By Dawn lus

All Chase Duffy wants is to be fast. Faster than a race car, a rocket ship, even Superman. Certainly faster than his fastest competitor on the school track and field team, Gordon "Lightning" Smith.

So when he heads to his grandfather's Alberta canola farm for a practice run one day, the last thing he expects when he crosses the imaginary finish line is to also cross into the past for a history lesson about the origins of one of Canada's most important crops.

Fields of Home leads young readers through a time travel adventure that is part fiction, part canola fact and 100% edu-tainment. It's a unique – yet effective – tool to help the Alberta Canola Producers' Commission (ACPC) carry out part of its mandate: *To maintain awareness and develop understanding* of the role that canola plays as one of Canada's major agricultural commodities.

Canola certainly plays a significant role in Chase Duffy's life. Not only are his grandparents canola producers, but the crop has become the source of some pretty fantastical adventures. In the book *Gotta Jetl*, Chase meets race car driver Kevin Therres– the inventor behind the world's first Jet Engine Funny Car to run on 100 percent biodiesel – and as a result, is inspired to build his own soap box derby car. In *It's a Blastl*, Chase meets Canadian astronaut Robert Thirsk and is whisked



Photo caption

ts A Bla

into space with 250,000 canola seeds as part of the CanoLAB project. In *Tasting my Story*, Chase is tasked with solving a mystery while looking through an old family cookbook for a canola recipe that will earn him first place at the school bake-off.

Actually, Chase's adventures are just getting started. In the next book, a miniature Chase will navigate a scary bug-infested canola field to learn about insect friends and pests. After that he'll learn more about the role of healthy fats in sports nutrition; discover water; dig up some extraordinary facts about soil; explore biotechnology and much more. With ten books planned - and funded, thanks to the generosity and support of the Alberta Crop Industry Development Fund – Chase's adventures will continue to enthrall students at Alberta schools and libraries for years to come. And for good reason.

Despite the eye-popping illustrations of local artist James Grasdal, the graphic novel-style books aren't just pretty to look at or fun to read. Each of the topics was carefully chosen to demonstrate canola's vital role as an agricultural commodity and also to coincide with the Alberta Education curriculum. To further support these curriculum links, a study guide was developed around the innovative concept of StoryScaping. This messaging is reinforced by a weekly blog written by "Chase Duffy," and daily tweets offering resources, tips and links for Alberta teachers.

Based on the success of the books and the growing popularity of Chase Duffy and his supporting cast, the ACPC has incorporated the characters and books into a number of its educational programs. In 2012, Chase was introduced as the lead character of the canola story as told in the Classroom Agriculture Program for Grade 4 Alberta students. At the 2013 Calgary Stampede, illustrator James Grasdal was on site to draw caricatures – at least 100 a day. And in 2014, Chase and his family will be the key "communicators" in the canola display at Ag-tivity in the City.

TASTING MY STORY

Furthermore, each of the last three books was launched in the Scholastic Book Corner during the popular Aggie Days school event, and then again in relevant upper elementary classrooms across the province. The author and illustrator attend teacher conventions and visit schools to read the stories aloud, talk to students about the creative arts, or support teachers' efforts to keep the ancient art of storytelling alive in local classrooms. This is an important task in an era when school libraries are shrinking or disappearing altogether.

It would be easy to dismiss the books as clever marketing propaganda if not for the connection students have with Chase and his friends. Beyond simple recognition of the trademark canola bloom, Chase's stories help children learn about culture, history, technology, innovation and invention, not to mention the value of literacy.

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As one young reader recently said, "Stories like this make learning about nature and science easy and fun!"

Perhaps most important, though, are the subtle themes that run through each story: the importance of family, the value of hearth and home, and a continued commitment to sustainability. Core values for Chase Duffy. Core values for Alberta's canola producers.

GET YOUR FREE COPY OF THE NEW CHASE DUFFY NOVEL "TASTING MY STORY"

ACPC is giving away copies of *Tasting my Story* to the first 100 people who email their name and address to **learncanola@ canola.ab.ca** or call the ACPC office at 1-800-551-6652.

To order all four of the Chase Duffy novels (*Fields of Home, Gotta Jet!, It's a Blast!* and *Tasting My Story*) send a cheque for \$18.00 payable to the Alberta Canola Producers Commission to: #170, 14315 - 118 Avenue, Edmonton, Alberta T5L 4S6 •

Sask Canola

SKreport



EXECUTIVE DIRECTOR'S REPORT

Welcome back to another season of *Canola Digest*! As we all know, September arrives well before we have had our fill of long summer evenings and warm weather. I think one reason summers seem short these days is because so much happens in the world of agriculture. This summer, SaskCanola was involved in many initiatives.

• We welcomed the new Saskatchewan Wheat and Saskatchewan Barley Commissions to the crops community.

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Catherine Folkersen SaskCanola

- We attended field days in Swift Current, Indian Head, Melfort and Scott.
- We participated in and sponsored diagnostic schools at Indian Head and Swift Current.
- We partnered with SaskFlax and SaskMustard to host a SOLD OUT golf tournament to benefit Saskatchewan Agriculture in the Classroom. Thanks again to all the sponsors and golfers who helped raise over \$20,000 for this great organization.
- We worked at the Calgary Stampede with our friends, the Alberta Canola Producers Commission.
- We awarded graduate scholarships to three Saskatchewan students: Andrea de Roo, Ian Epp and James Bush. Ian and Andrea will be focusing on cleaver control in crops and James is working on clubroot genetics. Good luck to each of you in your studies.
- We planned a busy fall season. Check us out at Agribition at the Grains Expo, the Royal Agricultural Winter Fair in Toronto or Canola Days in Yorkton.

This summer also saw a staff change. Betty Anne Stevenson, who has been our Market Development and Communications Manager, has moved to the Global Institute for Food Security at the University of Saskatchewan. She has worked hard for five years at SaskCanola ensuring that farmers connect with us on radio, the Internet and through *Canola Digest*, and leading our initiatives including the *Kick off to Good Health* partnership program with the Riders. Betty Anne, thanks for all the time you spent with us to make our organization better at communications and to grow our presence through some great programming.

As I write this in mid-July I am feeling weather weary. The unusual weather events seem to be piling up on us. After a snowy winter we are seeing rain, hail and today (July 15) a tornado warning for most of the province. No one has to tell farmers that weather can make or break your business. I hope the weather calms down and the season is capped by a warm and sunny harvest.

Catherine Folkersen Executive Director

2013 DR. KEITH DOWNEY UNDERGRADUATE SCHOLARSHIPS AVAILABLE

The Dr. Keith Downey Undergraduate Scholarships, each valued at \$2,000, are made available by SaskCanola on an annual basis to the immediate family members of registered Saskatchewan canola producers. The scholarships are available to students who are enrolled in undergraduate postsecondary agriculture education in a recognized Canadian institution in the second, third or fourth years of their program.

Applications must be received by 4:00 p.m. on October 11, 2013. The top four essay writers will be awarded scholarships of \$2,000 on or before October 25, 2013.

Further details and the application form can be found at www.saskcanola.com.







CROPSPHERE 2014 GAINS MOMENTUM!

The inaugural CropSphere conference will take place January 14-15, 2014 in Saskatoon at TCU Place during Crop Production Week. The conference, open to all growers and commodity stakeholders, is hosted in partnership by SaskCanola, SaskFlax, Saskatchewan Oat Development Commission, and the Saskatchewan Pulse Growers.

This premiere conference will feature keynote speakers, as well as breakout sessions focusing on agronomy, business, market information and policy issues. It will also provide networking opportunities, luncheon programs and a special CropSphere Gala Banquet.

In June 2013, initial speakers were announced and the official event website was launched at **www.cropsphere.com**.

"We are excited about the momentum of this new conference for producers in Saskatchewan," said Catherine Folkersen, executive director of SaskCanola. "This integrated commodity conference during the 2014 Crop Production Week will also include AGMs for all the groups involved. Farming isn't just about one crop. At this time, the CropSphere conference brings together four Saskatchewan farm organizations, SaskCanola, SaskFlax, Saskatchewan Oat Development Commission and the Saskatchewan Pulse Growers to address topics that interest all Saskatchewan producers."

Confirmed speakers to date include Bruce Croxon, judge on CBC's Dragon's Den; Glen Hodgson, chief economist for the Conference Board of Canada; and Michele Payn-Knoper, one of North America's leading farm and food advocates and author of *No More Food Fights*!

Early registration opens October 1, 2013. For more information on CropSphere please visit **www.cropsphere.com**.

TEE UP FOR AGRICULTURE

It was a sellout event! The inaugural Oilseeds Invitational Golf Classic in support of Saskatchewan Agriculture in the Classroom took place on Tuesday, June 25, 2013 at the Dakota Dunes Golf Links Course. The Classic, organized in partnership with SaskFlax, SaskMustard and SaskCanola, attracted 144 golfers comprised of growers, industry, stakeholders and sponsors.

The 18 hole shotgun tournament ended with a fabulous banquet and reception, including special guest speaker Jim Hopson, President and CEO of the Saskatchewan Roughriders.

"This Classic has been the first of what we envision to be an annual event to strengthen networks within the vibrant agriculture sector while raising funds for our youth," said Catherine Folkersen, executive director, SaskCanola.

A total of \$20,000 in proceeds were raised from the Oilseeds Invitational Golf Classic. The proceeds will fund Saskatchewan Agriculture in the Classroom (AITC) projects and programs to ensure students understand how modern agriculture works and how the industry benefits the province, the country and customers around the world.

We will continue with the winning formula next year. Plans are already in motion for the Oilseeds Invitational Golf Classic 2014! •





Top: Ag in the Classroom (AITC) received a \$20,000 cheque from the 2013 Oilseeds Invitational Golf Classic.

Left: Enjoying the 2013 Oilseeds Invitational Golf Classic, from left to right, are: Shane Stokke (Director, SaskFlax), Joan Heath (Chair, SaskCanola), Alanna Koch (Deputy Minister of Agriculture) and Stan Jeeves (Director, SaskCanola).



MBreport

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The Manitoba Canola Growers Association (MCGA) held its inaugural Innovative Canola Leadership Conference for farmers March 8-9, 2012 in Brandon. Twenty-one Manitoba farmers from all corners of the province were selected to attend.

The two-day event was designed to provide dynamic farmers with leadership skills they can put to use on their farms, in their businesses and for the industry.

The conference included interactive workshops presented by distinguished industry

speakers including Bob Treadway, Owen McAuley, Earl Geddes, Senator JoAnne Buth, and Chantelle Donahue.

The conference fulfilled one of MCGA's strategic goals to engage members. "The board identified a need to develop a program that would focus on farm leadership," said Ernie Sirski, MCGA director and Chair of the Communications Committee. Sirski said he was happy with the outcome. "It has been invigorating to bring together a group of individuals that are so focused on future farm issues."

MCGA had some help from the Canadian and Manitoba governments, who provided funding through the Growing Forward initiative to support this event.

The Innovative Canola Leadership Conference was truly a success and MCGA plans to continue putting more farmers through the conference. Do you know a dynamic farmer who you think would enjoy this experience? Please contact Roberta Galbraith, Member Relations Coordinator at galbraithr@mcgacanola.org.



Innovative Canola Leadership participants, March 2013





JOINT CROP GROUP TO HOLD EDUCATIONAL EVENT IN 2014

Five crop organizations – including Manitoba Canola Growers Association (MCGA) – have teamed up to hold a joint crop event that will bring farmers together in one place. The two-day event will include educational sessions and annual general meetings for each of the five participating organizations.

The other four organizations involved are Manitoba Flax Growers Association, the National Sunflower Association of Canada, Manitoba Corn Growers Association and Manitoba Pulse Growers Association.

These five organizations understand that farmers attend a lot of meetings throughout the year, sometimes with conflicting dates and times. "We want to make it simple, to combine our efforts, to bring top quality speakers and sessions all in one place," said Leanne Campbell, communications chair for the committee. The two day event will include a banquet and tradeshow.

The event requires collaboration between all five participating groups. The program is currently being put together and they expect to have a name for the event soon. Roberta Galbraith, member relations coordinator with MCGA, sits on the executive committee.

Mark your calendars: The event will be at the Victoria Inn in Winnipeg February 18-19, 2014. The group expects to launch a website with more details and information on registration fees soon.



BE WELL MAGAZINE – GLUTEN FREE

The Gluten Free Edition of the new *Be Well* Magazine shares articles and recipes from our *Be Well* Team! Life coach Phyllis Reid-Jarvis talks about refocusing challenges into opportunities. Fitness instructor Rebecca Hadfield shares tips on how to get and stay motivated about exercise. Registered Dietician Shelley Case answers the question: What is celiac and how is it diagnosed? Jenn Dyck and Ellen Pruden talk about different types of flours and share delicious gluten free recipes.

Order your copy today by going to www.mcgacanola.org. •

BE WELL NEWSLETTER AND BLOG

Every month, MCGA creates a new edition of our *Be Well* newsletter, with different articles and recipes from experts aimed at improving your lifestyle both physically and mentally. Our *Be Well* team shares "What We're Lovin'," which includes anything that excites them from recipes to events. Check out the *Be Well* blog at **www.blog.canolarecipes.ca**, which is frequently updated with articles.

By signing up for our *Be Well* blog, you get an email when new articles are posted.



Sign up for the Be Well Newsletter and Be Well blog at blog.canolarecipes.ca and you will be entered to win!

MBreport

CALL FOR NOMINATIONS

Interested in the future of canola and the issues of the industry? The Manitoba Canola Growers Association (MCGA) is seeking members to stand for election to its Board of Directors.

This is a great way to get involved with an organization that is at the cutting edge of the canola industry. MCGA oversees the distribution of research funds, promotes Canadian canola, and represents canola growers in industry matters.

Eight members from around the province are elected to the MCGA Board to represent all canola growers in Manitoba. Four members are elected as directors every two years. Directors serve a term of four years, and can serve for three consecutive terms (for a total of 12 years).

Nominations for the office of director may be submitted to the MCGA main office at 400-167 Lombard Avenue in Winnipeg between October 15 and October 31 (by 4:30 p.m.), 2013. Nomination forms must be signed by six eligible MCGA members and must be accompanied by a short biography. Due to limited space, each biography must be kept to 150 words or less.

Mail-in ballots will be mailed out by November 22, 2013. Ballots must be returned on or before December 10, 2013. If fewer than five nominations for director are received by 4:30 p.m. October 31, these nominees will be deemed elected by acclamation.

New directors will assume their responsibilities following the Annual General Meeting.

If you are interested in running for director please call Bill Ross at 204-982-2120. The nomination form and new bylaws outlining the election process can be found at www.mcgacanola.org. •

CANOLA CAMPERS

By Angela Dansby and Alison Neumer Lara

Each July, 12 to 15 food influencers from North America come to Saskatoon for Canola Camp, which is designed to teach them about canola through taste, touch and tour.

anola Camp may be the ultimate farm to fork experience. Each July, when the canola fields are in bloom, a lucky handful trek to Saskatoon, SK for an education in all things canola, including farmer-led field visits, nutrition seminars and cooking demonstrations. Did we mention the fabulous meals?

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Sponsored by the Canola Council of Canada (CCC), the four-day agricultural tour invites 12 to 15 North American journalists, health professionals, chefs and other influencers to learn about the health and culinary benefits of canola oil through hands-on experience. This year, campers toured a 2,000-acre family farm and climbed up on tractors the size of, well, a barn. They discussed biotechnology with a leading scientist and "crushed" canola seed with an oil processing expert. Of course, they also enjoyed beautiful meals prepared with canola oil and regional ingredients by Saskatoon's best chefs.

"Now I understand where canola comes from in a deeper way," says Ellie Krieger, registered dietician, host of the Cooking Channel's "Healthy Appetite" and CanolaInfo spokesperson, who attended this year's Canola Camp July 11-14. "Meeting the farmers – who are growing this product I've been using for years – and seeing and touching the crop firsthand makes it very human... I will never look at a bottle of canola oil the same way again. Now canola has a story, a real story."

The opportunity is indeed enlightening for campers, notes Shaunda Durance-Tod, CanolaInfo program manager with the CCC and one of the camp "counsellors" in attendance.

"There's nothing like seeing a vast field of yellow against a blue sky and talking to growers to help people gain a new



Ellie Krieger, host of the Cooking Channel's "Healthy Appetite" and CanolaInfo spokesperson, tried various canola oils, including the regional flavour of cold-pressed canola oils from Quebec, Alberta, Saskatcheawn and Manitoba, when she attended Canola Camp this year.

perspective on where canola oil comes from and why it's so special," she says.

Each year, the campers tour a canola farm, learning how the crop grows from planting to harvesting. Farm owners explain all aspects of their operation including equipment, seed storage and daily life.

"Camp was more than what I was expecting," notes Alejandro Zárate Vega, food writer from Mexico City. "One of the things that impressed me was being in the fields, looking at all of the flowers and all of the yellow, and to see how big the plant gets."

Through such hands-on experience, campers become champions for canola oil and are well prepared to answer

Brian Chorney, canola grower from East Selkirk, MB, rolls out canola seed to show Canola Camp attendees the bright yellow colour inside.



questions they may be asked by colleagues or consumers.

"Having the growers and everyone from CanolaInfo relay information that I can pass on to consumers was great because people really need to know about the benefits of canola oil and all the good that comes from agriculture," says Emily Richards, recipe developer and cookbook author from Guelph, ON. "My excitement to come to Canola Camp was a long time coming. I knew from speaking to colleagues who had been that it was an experience unlike any other and I was in for a real treat."

CAMP COUNSELLORS TELL CANOLA STORY

Each year at Canola Camp, three Canadian canola farmers representing the primary canola-growing provinces of Saskatchewan, Alberta and Manitoba serve as "counsellors" to explain how they grow canola and answer questions related to agronomy. In addition, CCC staff and CanolaInfo consultants share their knowledge about canola in seminars and presentations, discussing canola origins, oil nutrition, sensory evaluation of different types of canola oil and more.

"In the classroom sessions everyone was very motivated and all of it was interesting," says Vega. "It was the right amount of different points of views from the farmers and crushers."

In an oil-tasting session, campers got a sense of "terroir" (regional flavour characteristics) with cold-pressed canola oils from Quebec, Manitoba, Saskatchewan and Alberta. They compared them to classic, high-oleic and expeller-pressed canola oils and learned about the differences in processing methods.

"If you didn't understand about the different types of oils and fats – the omegas and monos and what not – it became very clear," notes Vega, referring to the types of healthy, unsaturated fats found in canola oil. "It was also very educational to see the words that describe the different kinds of oils."

CANOLA CAMP ALUMNI IN ACTION

The Saskatchewan Canola Development Commission (now SaskCanola) launched Canola Camp 15 years ago. Today, there are well over 100 Canola Camp alumni throughout the United States, Canada and Mexico who could be called "canola ambassadors." These include dietitians who recommend canola oil to patients and consumers, food writers who highlight it in magazine articles and culinary experts who include it in their cookbooks or kitchens.

Many Canola Camp alumni even work with Canolalnfo, the Canola Council of Canada's (CCC's) promotion program, as official ambassadors. For example, Cheryl Toner, registered dietician, was a spokesperson for Canolalnfo's 2012 "Skinny Mini Holiday Desserts" media campaign, recommending bite-sized treats made with canola oil as a way to indulge "responsibly" for the holiday season. Nearly 123 million listeners tuned in to Toner's radio interviews about the recipes, which also appeared in more than 2,300 print and online articles across the U.S.

"The success of Canola Camp is measured in the relationships we develop with key influencers," says Shaunda Durance-Tod, registered dietician and Canolalnfo program manager at the CCC.

"Sometimes the effects are immediate and sometimes there is a more long-term impact. For example, last year we saw quite a bit of pick-up as campers wrote about canola oil in various publications following camp. We have also developed relationships with people who have gone on to be spokespeople and/or to develop recipes for us."

In the first half of 2013, Canola Camp alum and "guy-etitian" Dave Grotto, registered dietician, was a keynote speaker for Canolalnfo. He provided messages about men's health and preventing chronic disease through good nutrition (including canola oil) at dietetic association meetings around the country. Chef Nancy Hughes promoted canola oil in recipes and at Canolalnfo-sponsored events at the International Association of Culinary Professionals meeting in San Francisco in April.

Currently, Ellie Krieger, host of the Cooking Channel's "Healthy Appetite," is Canolalnfo's U.S. media spokesperson. She has developed recipes for three campaigns, including "Mother's May the Healthy Way," "Engaging Appetizers" and "Decades of Decadence." They feature recipes for heart-healthy brunch dishes, hors d'oeuvres for engagement and wedding parties and iconic desserts from the past two centuries, respectively.

Print and online articles about the "Mother's May" brunch recipes alone drew an audience of more than 106 million readers, while radio interviews with Krieger on the campaign attracted an audience of more than 47 million listeners.

Farmer counsellors addressed investment, sustainability and innovation in a lively panel discussion. They were followed by an expert on plant biotechnology.

"As farmers, we have an important job to do in connecting food products to consumers and in correcting misconceptions about the tools we have to maximize crop quality and quantity," notes third generation farmer Brian Chorney of Manitoba. "Ultimately, our job is to leave the land sustainable and productive for future generations." Non-farmers are often amazed by today's innovations like plant biotechnology and equipment run by GPS, which lead to higher yielding crops produced more efficiently and sustainably, adds Lee Markert, a fourth generation farmer from Alberta.

"Thanks to biotechnology, we use less herbicides and tillage while better controlling weeds and maximizing soil quality," he says. "GPS allows us to operate our machinery on auto-steer

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for precise planting and fertilizer applications without overlaps."

Not only are the farmer counsellors able to explain such complex topics in a consumer-friendly way, they can share the importance of canola to their livelihood.

"Canola is key to crop rotation and profitability on my farm," notes Dale Leftwich, a Saskatchewan farmer who has been growing canola for 25 years. "In the past five years, I've had the best two years and the worst two years in our farm's history, so we have to budget wisely in order to compensate for years when Mother Nature doesn't cooperate."

Interacting with the Canola Camp participants gives the counsellors insight into how the public understands – or in some cases, misunderstands – the origins of food. Farmers are adept

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- or in some cases, misunderstands the origins of food. Farmers are adept at linking people to agriculture in a personal and meaningful way.

"There was so much information communicated and it was wonderful having a chance to taste the different varieties of canola oil, see the equipment that is used and how very, very beautiful the canola plant is," says Krieger. "I was surprised to learn how much progress has been made with the production of canola since the 1970s."

Richards notes that the farmers' personal stories help other people relate to what they do.

"It's always great to have that eye-opening experience like when I got to see the canola pods on plants (I'm getting goosebumps just talking about it). Looking at a canola field was like looking at a postcard, and it made me realize that farming is real... I think everyone should come to Canola Camp." •

Angela Dansby and Alison Neumer Lara manage U.S. public relations for CanolaInfo in Chicago, Ill. CanolaInfo is the non-profit North American promotion program of the CCC. The CanolaInfo team is supported by Canada's canola growers, crop input suppliers, exporters, processors, food manufacturers and governments.





Agar's Corner country house dining and catering annually hosts Canola Camp participants for a taste of the Canadian Prairies with ingredients like goose, bison, barley, pulse crops and, of course, canola oil. Don and Carmen Agar are the fourth generation owners of the home itself, a mail order house from the Eaton catalog built in 1916. Here are two sample dishes that characterize the catering company's farm-fresh goodness. Once you try these recipes, you will be in "Agar's Corner."

Chickpea Salad

INGREDIENTS

2 cups	dry chickpeas
2	tomatoes, diced
1 cup	diced cucumber
½ cup	diced red pepper
½ cup	diced green pepper
½ cup	diced purple onion
³ ⁄4 cup	feta cheese crumbled to chickpea size (reserve ¼ cup to sprinkle on top)

Lemon and Cumin Vinaigrette

¹/₄ cup canola oil

- ¹/₂ cup **lemon juice**
- 1 Tbsp ground cumin
- ¹/₄ tsp **cayenne pepper** (adjust to taste – add ¹/₂ tsp for more kick)
- 1 tsp salt

INSTRUCTIONS

- 1 In large bowl, soak chickpeas in cold water for 12 hours, then rinse twice and drain. In large pot, place chickpeas, cover with fresh water and boil until soft.
- 2 In large bowl, combine all ingredients. Pour over vinaigrette and refrigerate. Take salad out of refrigerator
 30 minutes before serving. (Salad can be made day before, but pour a little more vinaigrette into it before serving.)

Servings: 4

Cook's note: If in a pinch, canned chickpeas can be used, but rinse several times to remove canning liquid and husks.

Pearl Barley Salad

INGREDIENTS

2 cups	barley
1 tsp	salt
4	carrots, diced
4	celery stalks, diced
³⁄₄ cup	fresh dill, chopped

Vinaigrette

¹∕₂ cup	canola oil
½ cup	lemon juice
1 Tbsp	lemon rind, grated
½ tsp	salt
½ tsp	pepper

INSTRUCTIONS

- 1 In large pot, place barley, 4 cups water and 1 tsp salt. Bring to boil. Simmer for about 10 to 12 minutes. Remove from heat and let stand for 5 minutes. Drain barley and rinse with cold water. Repeat twice to stop cooking process.
- 2 Toss vegetables and dill with barley. Add vinaigrette and toss. Chill in refrigerator about 1 hour. Sprinkle more dill on top before serving.

Servings: 6

Cook's note: A little extra dressing may be needed if sitting in refrigerator for more than an hour. For something different, try sprinkling toasted almonds over top just before serving.

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