

September 2019

# canola

## DIGEST

The Source for Canada's  
Canola Growers

# SET FOR SUCCESS

Saskatchewan farmer and former PAMI harvest-loss researcher Joel McDonald shares tips on how to set the combine for maximum efficiency / Page 12

**INSIDE:****New seed tech for 2020 / Page 22**

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**LEVERAGE THIRD PARTIES  
FOR EXPONENTIAL GROWTH / Page 43**

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## HARVEST LOSSES CAN BE “THAT BAD!”

Challenging harvest conditions or combine mismanagement can push canola harvest losses as high as 10 per cent of yield. This article, built around Joel McDonald's presentation at Combine College, will explain how to check for losses and set the combine to reduce losses.

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## Know your grade ahead of time

The Canadian Grain Commission's popular Harvest Sample Program provides an unofficial grade and dockage assessment. For canola, it also provides oil, protein and chlorophyll content. Contact a CGC service centre to sign up.



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## New seed tech for 2020

What's new for 2020? TruFlex expands the application rate and window for glyphosate on canola. InVigor RATE takes an acres-per-bag approach to seed packaging. Seed companies continue to layer more high-demand traits into the same hybrids.

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## Working together to grow yields and opportunities

The Canola Council of Canada's Crop Production & Innovation team concentrates its efforts on four priority areas: research leadership and coordination, knowledge creation and transfer, preparation for emerging threats, and support for regulatory and market access efforts.

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## Take-home messages from IRC in Berlin

The Canola Council connected with many of the best canola and rapeseed scientists in the world at the International Rapeseed Congress in Berlin. This article covers key messages they brought home for Canadian canola growers.

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## Ready to fuel a biofuel boom

The stars are aligning for canola biofuel. Industry groups say a strong market signal is all it will take to shift Canadian production into high gear. It could not arrive at a better time for the Canadian canola industry.



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The Canola Council of Canada agronomy team worked with provincial canola grower groups to organize 'PALOOZA events this past summer. The team shares a few highlights that growers can use in fields this fall and for seed decisions for 2020.

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Canola Digest asks six farmers how they move their grain to market; why they choose 'do it yourself' or custom, and what are the benefits, challenges and frustrations with their system?

### 38 Canola Eat Well Chef asks Canadians to choose canola oil

The Canola Eat Well program continues to build a canola-smart group of chefs, dietitians and food writers across Canada. These ambassadors were a big help in raising canola awareness when China restricted imports of Canadian canola seed.

### 43 Business management Leverage third parties for exponential growth

Shawn Kanungo, in his presentation on "Leadership in a World of Disruption" at the Canadian Crops Convention in Montreal earlier this year, says a business can greatly expand its profit-generating capacity and reduce its time-strain by leveraging outside help.

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## PROVINCIAL BULLETINS

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### 8 SaskCanola

SaskCanola asks and answers "Who should grow a clubroot-resistant variety?" While on the topic, the Saskatchewan Clubroot Survey continues until the end of September. SaskCanola members can submit one free voluntary sample.

### 10 Manitoba Canola Growers

Manitoba Canola Growers introduces Corina Lepp, its new grower engagement and extension manager. The TV show *Great Tastes of Manitoba* celebrates 30 years with two canola oil features this fall.

## CALENDAR

#### AGRI-TRADE 2019

November 6-8 | Red Deer, Alberta  
[agri-trade.com](http://agri-trade.com)

#### CANOLA DISCOVERY FORUM

November 13-14 | Winnipeg, Manitoba  
[canoladiscoveryforum.ca](http://canoladiscoveryforum.ca)

#### ALBERTA POWERING YOUR PROFITS TOUR

November 19-28 | 12 locations  
[albertacanola.com/PYP](http://albertacanola.com/PYP)

#### LEARN TO LEAD

November 29-30 | Saskatoon, Saskatchewan  
[saskcanola.com](http://saskcanola.com)





DAY **97**  
OF **106**

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# Change it

**T**he saying “If it ain’t broke, don’t fix it” doesn’t work for weeds. People promoting effective weed management have their own expression that is pretty much the exact opposite. Tammy Jones, weed specialist with Manitoba Agriculture, shared the catchphrase for a Canola Watch article back in June.

“If something is working, change it.”

Jones credited Australian Stephen Powles with this keep-weeds-on-their-toes quip.

Later that month, at canolaPALOOZA, I was hosting a podcast on integrated weed management (IWM) and we got into a discussion on prevention tips for herbicide-resistant weeds. I shared my version of the quote: “If it works, change it.”

On the spot I couldn’t remember who said it, but Breanne Tidemann, the Agriculture and Agri-Food Canada research scientist who participated in the podcast, bailed me out with an immediate response: “That’s a Stephen Powles quote.”

Powles is a professor at the University of Western Australia. I tracked him down and asked, by email, if the attribution is correct. Powles confirmed. He started using that line, or a slightly more Australian version, in the 1980s.

“In Australia, there used to be a well-known TV ad which stated, ‘When on a good thing, stick to it.’ For herbicides, I thus used ‘When on a good thing, don’t stick to it.’ This had really good resonance in Australia,” Powles says. “In North America, I have stated ‘When on a good thing, change it.’” (The way the phrase keeps morphing, it reminds me of an agronomy version of “telephone.” At least the meaning stays the same.)

He says the change-it approach will minimize the likelihood and impact of herbicide resistance. “Avoiding and minimizing resistance is all about diversity, and this starts with herbicide diversity,” he says.

Diversity comes from a continual shake up of herbicide groups and spray timing (spring, in-crop, fall) for each field. Use tank mixes with more than one “effective” herbicide group. Effective means the weeds aren’t resistant to it. Some populations of wild oats on the Prairies now have resistance to five herbicide groups, so

the list of “effective” herbicides left is getting short. Kochia is resistant to Group 2 and now Group 9. There are many other resistant weeds and the list gets longer. Tidemann says Group 9-resistant palmer amaranth is rapidly moving north and is now along the Canadian border in North Dakota.

Other ways to add diversity are to use perennial crops or winter cereals in the rotation to increase competition at other times of year. Use narrow row spacing, shallow seeding and higher seeding rates to improve crop competition. Hand weeding (which is being done on a large scale in the U.S. because farmers are out of options) is a good technique for small patches of suspicious weeds.

Tidemann is researching combine weed-seed destroyers, including Australia’s Harrington Weed Destructor, and says the \$85,000 to \$100,000 after-market add-ons have a good place in weed management. “The herbicide-resistant weeds are the ones most likely to be there producing seed at harvest time,” she says.

Current WEEDit technology, which can see green weeds on brown soil and spot spray them on the fly, is the just the beginning of optical technology. Next-generation systems will spray weeds in-crop (green on green) and eventually identify specific weeds and give each species an effective spray mix.

Herbicide-tolerant canola has been an excellent tool for weed management. With Liberty Link and Roundup Ready stacks and TruFlex coming on the market in 2020, growers continue to see expanded options.

Weed competition, if uncontrolled, is a bigger threat to crop profitability than any insect or disease. Diverse approaches to weed management are not about the weeds per se; they are about profitable crop production in general. Powles, who has been encouraging these IWM practices for decades, says effective extension of these ideas has to be about the crop first.

“I don’t talk about IWM,” he says. “For growers, I know the emphasis is on the crop, therefore I talk about good farming, good cropping practices.”

Integrate integrated weed management into great farming. ✿



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### THE CANOLA DIGEST

is a joint publication of the Alberta Canola Producers Commission (ACPC), SaskCanola, the Manitoba Canola Growers Association (MCGA) and the Canola Council of Canada.

### SUBSCRIPTION INQUIRIES, ADDRESS CHANGES OR CANCELLATIONS

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To subscribe,  
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### CANADIAN POSTMASTER

Send address changes and undeliverable copies (covers only) to:  
400 - 167 Lombard Avenue  
Winnipeg, MB R3B 0T6

### PRINTED IN CANADA

ISSN 0715-3651  
Postage paid in Winnipeg, MB  
Publication Mail Sales Agreement  
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## Leaders wanted to represent Alberta canola growers



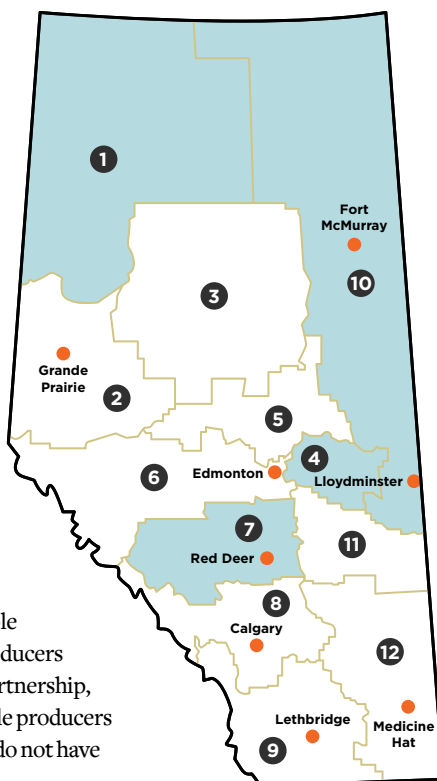
The Alberta Canola Producers Commission is seeking four canola growers to serve as directors on the Board of Directors for a 3-year term. This year, directors are needed in regions 1, 4, 7, and 10.

Alberta Canola divides Alberta into 12 regions, with each region electing a producer director to represent the canola growers within that region. The Board of Directors meets quarterly and is guided in decision making by five committees comprised of board members: Agronomic Research, Governance & Finance, Grower Relations & Extension, Government & Industry Affairs, and Public Engagement & Promotion.

### WHO CAN BECOME A DIRECTOR?

Anyone who has paid a service charge on canola to Alberta Canola since August 1, 2017 is an eligible producer and can stand as a director. Eligible producers can be individuals or represent a corporation, partnership, or organization. In order to be nominated, eligible producers must grow canola within the defined region but do not have to reside within it.

For detailed descriptions of the regions, more information, or to make a nomination please visit [albertacanola.com/elections](http://albertacanola.com/elections) or call the office at 780-454-0844.



## Powering Your Profits tour

Get the knowledge you need to be more profitable at one of our 12 Powering Your Profits Tour stops across Alberta this November. Topics will include agronomy, marketing and business management.

**FIND AN EVENT CLOSEST TO YOU AND SAVE THE DATE.**

**TUESDAY, NOVEMBER 19**  
Lacombe, Alberta

**TUESDAY, NOVEMBER 19**  
Vermilion, Alberta

**WEDNESDAY, NOVEMBER 20**  
Vegreville, Alberta

**WEDNESDAY, NOVEMBER 20**  
Camrose, Alberta

**THURSDAY, NOVEMBER 21**  
Westlock, Alberta

**THURSDAY, NOVEMBER 21**  
Nisku, Alberta

**TUESDAY, NOVEMBER 26**  
Airdrie, Alberta

**TUESDAY, NOVEMBER 26**  
Manning, Alberta

**WEDNESDAY, NOVEMBER 27**  
Lethbridge, Alberta

**WEDNESDAY, NOVEMBER 27**  
High Prairie, Alberta

**THURSDAY, NOVEMBER 28**  
Drumheller, Alberta

**THURSDAY, NOVEMBER 28**  
Grande Prairie, Alberta

Get complete details  
at [albertacanola.com/PYP](http://albertacanola.com/PYP).



## Agri-Trade 2019

NOVEMBER 6-8, 2019 | Westerner Park, Red Deer

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## canolaPALOOZA 2019

*canolaPALOOZA in Lacombe in June had 145 instructors.*

The biggest agronomy event of the summer, canolaPALOOZA, was held on June 26 at the Lacombe Research and Development Centre. This year's event, the fifth annual, had over 700 people come through to visit more than 25 stations. Station themes ranged from stand establishment to integrated pest management to combine optimization and harvest management – and everything in between. More than 125 instructors, as shown in the group photo, ensured that attendees could get an expert answer for every canola question.

Australian agronomist Ardina Jackson, who planned a trip to canolaPALOOZA as part of her Western Canadian tour, shares her experience from the 2019 event. Here is a segment from her blog post at [albertacanola.com/connects](http://albertacanola.com/connects):

*As the tents were being set up and the sun was beginning to crawl out from behind the clouds, it looked like the day was off to positive start. The first of the attendees began to roll in around 9:30am and they just didn't stop. From clubroot tents, to pulses, to wheat varieties, honey bees, and everything in between, there was a station to take everyone's fascination.*



Australian agronomist Ardina Jackson writes about her canolaPALOOZA experience at [albertacanola.com](http://albertacanola.com)

*Physical examples of bugs and plants took up most of the tables and plot ground around the site. It was a truly interactive environment. The sharp minds of the industry experts were ready to answer any question, and never hesitated to offer insight to a curious onlooker. It was surprising just how willing to chat everyone was. You could become easily absorbed in the day as they catered to anyone's learning style. Detailed and factual displays paired well with the free water, as it ensured attendees stayed hydrated and focused on getting the most out of the day.*

*I noticed many farmers at the event, but also an insatiable curiosity among agronomists and experts to investigate many of the tents themselves and network with the crowd. However, this was no ordinary networking. I'd never seen such humour and inventiveness to entertain the attendees. The atmosphere was full of optimism and good spirits.*

## Combine College 2019

The 2019 Alberta Combine College, co-hosted by Alberta Canola and the Canola Council of Canada, was held at the ENMAX Centre in Lethbridge on Wednesday, July 10.

It featured presentations about managing harvest and measuring losses, with sessions focusing on grain grading, harvest aids, late season diseases in canola and an update on market access from the Canola Council of Canada.

Brooke Parker of Risdon Farming near Strathmore, who attended the 2019 Alberta Combine College, shared her experience from the event in a blog post at [albertacanola.com/connects](http://albertacanola.com/connects).



*Combine College in Lethbridge featured combines and hands-on demonstrations on settings to reduce losses.*



## Who should grow a clubroot-resistant variety?

The Canadian recommendation is for farmers to grow clubroot-resistant (CR) varieties as part of a holistic clubroot farm management plan. The CR trait will prevent most infection, which will help to keep spore counts low in fields that already have lower counts. With fewer resting spores in the soil, the risk of building up new virulent pathotypes that can overcome the clubroot resistance being used is reduced.

A minimum two-year break between canola crops (three-year rotation) does not guarantee to keep clubroot away, but when combined with a clubroot resistant variety, it helps to keep clubroot spore numbers in the soil at low levels. When spore counts reach high levels, the clubroot pathogen is more easily moved from field to field because there are now potentially billions of spores present in soil clumps attached to equipment. Furthermore, clubroot will cause yield loss in susceptible canola (even with a four-year rotation). Finally, the clubroot pathogen will overcome CR resistance if resistant varieties are used repeatedly in tight (one-year break or continuous) canola rotations. There is no reason not to grow a clubroot variety if clubroot

is present in your region, especially if the CR variety also has the blackleg resistance genes, maturity or other traits that you value for the particular field or farm. If clubroot is present in fields around you, growing a canola variety that has CR is your top priority.

Use the following checklist to decide whether a CR variety is right for your farm. If you can answer “true” to all five, you may not need a CR variety. If any one statement is “false”, a CR variety may be the best choice.

- I vigorously checked all of my fields (not just those in canola this year) to confirm that clubroot is not present on my farm.
- I sent in soil samples from fields that will be in canola next year and they tested negative for the pathogen.
- My neighbours have checked their fields and they don't have clubroot.
- I have not heard of any clubroot in my municipality.
- No outside equipment/traffic has entered my fields since I last scouted and tested them for clubroot.

### HOW TO PRESERVE THE TRAIT

While CR genetics show a lot of promise, relying on genetics alone to manage clubroot is not enough. Two-year breaks between canola crops and control of host weeds (which include volunteer canola, flixweed, stinkweed, shepherd's purse, wild mustard and other brassica crops) are two other steps required to reduce spore buildup.

This is important because each time a susceptible host is grown in the presence of the disease, clubroot disease spores multiply, making management more difficult. Pathotype 3H, the predominant pathotype, is very well controlled by the genetics available in current varieties. Screening of field clubroot spore populations show that there are other pathotypes present as well. This diversity in pathotypes allows the pathogen to persist by favouring development of those pathotypes not controlled by resistant varieties. Managing new genetic tools properly through lower risk crop rotations and agronomic practices will be necessary to preserve their effectiveness against clubroot.

While commercial pathotype tests are not available at this time, growers can test soils for the presence and quantity of clubroot spores. Soil samples for testing can be gathered in the fall. Contact your provincial growers organization to find out how to sample and where to send them.

For a quick comprehensive article on clubroot management, read “Clubroot 101: How to Keep Spores Low and Local” at [canolawatch.org](http://canolawatch.org). For more detail on all aspects of clubroot management, read the “Control clubroot” section at [clubroot.ca](http://clubroot.ca). 🌻

## Reminder: Participate in Saskatchewan Clubroot Survey

SaskCanola has invested \$170,000 to test soil samples collected throughout Saskatchewan for the provincial clubroot survey.

Samples for the 2019 Saskatchewan Clubroot Survey will be collected until the end of September by Plant Health Officers (SARM), with support from the Ministry of Agriculture and Saskatchewan Crop Insurance Corporation staff. Farmers can also submit a free, voluntary sample from their field by obtaining a sample bag from a Ministry of Agriculture Regional Office. Confirmed cases from the voluntary samples will be used to help update the Saskatchewan Clubroot Map. Individual farm locations will not be included on the map.

For more information, contact SaskCanola at 1-877-241-7044.

### Clubroot resistance for 2020

Saskatchewan farmers...if you grow canola in an RM where clubroot has been identified, you should strongly consider booking a clubroot-resistant variety for the 2020 crop year. View the Saskatchewan clubroot map in the “Affected Regions” section at [clubroot.ca](http://clubroot.ca).



## SaskCanola Announces Morris Sebulsky Endowment Fund



SaskCanola is pleased to announce an endowment fund in honour of Morris Sebulsky, a well-respected farmer from east-central Saskatchewan and agricultural engineering lecturer at the University of Saskatchewan. Mr. Sebulsky bequeathed over \$2.8 million to the U of S, 4-H, four commodity associations, and his neighbouring towns and rural municipalities. The funds SaskCanola received from the Sebulsky estate have been matched by levy dollars to invest in equipment and demonstrations at research stations across Saskatchewan.

For more information, visit [saskcanola.com/industry/partnerships](http://saskcanola.com/industry/partnerships).

## SaskCanola Invests in Safety

SaskCanola is a proud sponsor of the Canadian Agricultural Safety Association's BeGrainSafe trailer. Our investment supports grain safety education and entrapment rescue training in rural Saskatchewan communities.

This year, SaskCanola signed the Saskatchewan Health & Safety Leadership Charter and committed to the Mission Zero initiative to encourage a change in culture, thought and behavior to bring about an injury-free Saskatchewan.

## Don't miss our upcoming leadership workshop!



**NOVEMBER 29 & 30, 2019 | Saskatoon**

Have you considered joining a board? Want to build your leadership capacity? Then SaskCanola's Learn to Lead is the workshop you've been looking for! Interested individuals are invited to contact SaskCanola by September 27 to put their name forward for consideration – 25 lucky farmers will be chosen to participate in this fourth annual, top-notch learning and networking event.

## Canola In Focus Photo Contest



From your fields to the world, agriculture defines Saskatchewan. SaskCanola is bringing canola into focus and we want you to get involved! We're looking for images that showcase Saskatchewan farmers and the crops you grow. We welcome any images that represent the crop production cycle, from preparations to seeding through harvest. Crop and plant shots that include canola will be favoured. Photo entries will be accepted until October 31, 2019. Three grand prizes will be awarded based on skill.

For photo specifications and full contest details, please visit:  
[saskcanola.com/2019-photo-contest/](http://saskcanola.com/2019-photo-contest/)



Photo: Keith Fournier



## Great Tastes of Manitoba Celebrates 30 Seasons

30 GREAT YEARS  
**Tastes**  
OF MANITOBA  
Local Farms Local Foods

Great Tastes of Manitoba is a long-standing collaboration between commodity groups and the Manitoba Government. It's the longest running cooking show in Canada. But it is more than just a cooking show, it is about building public trust and connecting consumers to great, quality ingredients proudly grown by local farmers.

*Great Tastes of Manitoba is watched by more Manitobans than any show on the Food Network.*

Over the years, Ellen Pruden, Canola Eat Well director, has shared the stage with farmers and special guests. In 2016-17 season, farmer Curtis McRae cooked with Pruden and host Dez Daniels as Canada celebrated its 150th anniversary. McRae shared how he grows a quality product for consumers in Manitoba, Canada and around the world.

Great Tastes of Manitoba is just one of the many market development initiatives that Manitoba Canola Growers uses to deliver a strong canola message to key audiences across Canada to build the demand for canola.



*Canola Eat Well director Ellen Pruden (left) and Manitoba Canola Growers director Curtis McRae (right) cook with Great Tastes of Manitoba host Dez Daniels. The CTV show celebrates 30 years.*

### Tune into Season 30 on CTV



October 5 -

Savour the Flavour with Canola Oil:

Showcasing recipes from Nita Sharda, registered dietitian (RD), Chef Andrea Buckett and Erin MacGregor, RD.

November 23 - We "Can-ola" Do It:

Featuring recipes from the awarding winning recipe book *Eat More Veggies*. The book shares recipes from Erin MacGregor, RD, and Dara Gurau from How to Eat and is a partnership with Peak of the Market, Manitoba Association of Home Economists and the Manitoba Government.



Manitoba  
Canola Growers

## CALL FOR NOMINATIONS

Become involved with an organization that is on the cutting edge of the canola industry. The Manitoba Canola Growers Association (MCGA) is seeking members to stand for election to the Board of Directors.

**FOUR POSITIONS ARE UP FOR ELECTION  
EACH HOLDING A FOUR-YEAR TERM.**

Successful applicants will have a uniquely valuable chance to work behind the scenes of the canola industry and gain first-hand access to the latest canola issues, research and knowledge.

**Nominations must be submitted to the Manitoba Canola Growers office at 400-167 Lombard Ave, Winnipeg MB R3B 0T6 on or before October 31 by 4:30 pm.**

For more information or to download a nomination form visit [www.canolagrowers.com](http://www.canolagrowers.com) or call **204.982.2122**





# 2019 High School Scholarship Winners

Manitoba Canola Growers is proud to announce the 2019 high school scholarship winners.

Five \$1,000 scholarships have been awarded to the following deserving students from across Manitoba.

## This year's recipients are:



**BENSON PIZZEY**

*Russell*

He is enrolled in the Agricultural Equipment Technician course at Saskatchewan Polytechnic.



**SHAVAUGHN JOCHUM**

*St. François Xavier*

She is enrolled at the University of Manitoba in the Faculty of Agriculture and Food Science.



**TAYAH VANSTONE**

*Miami*

She is enrolled at the University of Manitoba in the Faculty of Arts.



**CASSIE HENDERSON**

*Reston*

She is enrolled at University of Saskatchewan in the Faculty of Agriculture and Bioresources.



**ABBY VANSTONE**

*Portage la Prairie*

She is enrolled at the University of Manitoba.

Congratulations to this year's winners! We wish you the best of luck as you pursue your chosen careers.

## Changeover for our Grower Engagement and Extension Manager

In early June, Manitoba Canola Growers (MCGA) welcomed a new grower engagement and extension manager to the team – Corina Lepp of Rivers, Manitoba. Lepp has taken over for Roberta Galbraith as a collaborator for events like CROPS-A-PALOOZA, Learn to Lead and the Crop Connect Conference.

“Corina is joining a great organization and it is the people that make it great,” says Jack Froese, a director with MCGA. “We’re thrilled to welcome her aboard. From our initial observations, we think she will be a great fit. Welcome to the team, Corina!”

In late July, MCGA congratulated Galbraith and wished her well as she retired to focus on her family farm near Minnedosa. Galbraith worked for Manitoba Canola Growers for eight years. In that time, she was a leader in developing and creating learning opportunities and activities for canola farmers in Manitoba. Her strategic thinking, creativity, passion for learning and wisdom will truly be missed.

“On behalf of the Board of Directors, I would like to thank Roberta for her hard work. She created strong connections with everyone in the ag industry and was one of the visionaries involved in the creation of the CropConnect Conference and many other programs,” Froese says. “Thank you for making MCGA such a great organization.”

Congratulations on your retirement, Roberta! Manitoba Canola Growers thank you for your hard work, enthusiasm and dedication to the industry. We wish you all the best!



*Thank you Roberta*



*Welcome Corina*

Challenging harvest conditions or combine mismanagement can push canola harvest losses as high as 10 per cent of yield. This article will explain how to check for losses and how to set the combine to reduce losses.

# HARVEST LOSSES CAN BE “THAT BAD!”

BY JAY WHETTER



**Y**ou may not want to know this, but canola losses out the back of the combine can be “that bad.”

Joel McDonald emphasized this point during his presentation at Combine College earlier this year in Brandon and Lethbridge. To all those farmers who say, “Losses can’t be that bad, can they?” McDonald replies, “Yes, they can be.”

In challenging harvest conditions or with excess speed or with a poorly-set combine, canola harvest losses can exceed 10 per cent of yield. That could be the profit margin – blown out the back of the combine. But with some attention, losses of one or two per cent are achievable and don’t have to come at the expense of productivity, he says.

McDonald farms at Kyle, Saskatchewan and has been working with PAMI on canola harvest loss research. He knows about the pressure to get harvest done, but says the best economic decision is not the one based entirely on harvest speed.

This article will explain how to check for losses (combine loss monitors aren’t useful without drop pan ground truthing) and how to adjust the combine to reduce those losses. The goal for each individual farmer is to find their right balance between harvest efficiency and lower losses.

## HOW TO CHECK

On his farm, McDonald checks for canola combine losses every time he starts a new crop. He also checks both of his combines. “Even though we run two of the same model of combine, you can’t assume losses will be the same for both,” he says. “Parts may be worn differently on each, which can influence threshing and cleaning. Big differences in loss could hint at a bigger maintenance issue.”

Here are the steps to make a proper loss assessment:

**Step 1. Choose your drop pan.** You can use anything from a plastic bucket on a stick, to a garbage can lid you toss under the combine, to a full-width pan attached to the combine underbelly and released with a switch. Calculate the square feet of the chosen pan.

Angela Brackenreed, agronomy specialist with the Canola Council of Canada, recommends a pan that closely matches the discharge width. “This will limit sampling error as the amount of seed coming out the back can range quite a bit between the centre and the sides of the shoe,” she says. A full-width pan captures all of that variability.

**Step 2. Disengage the chaff spreader and straw chopper.** With these tools disengaged and out of the way, all straw and chaff drop straight down into the pan. This provides a more accurate measurement.



| Weighing Method - All Crops<br>(0.010413 grams/ft <sup>2</sup> over each ft <sup>2</sup> in an acre = 1 lb./ac.) |     |     |      |      |      |      |      |      |                 |
|--|-----|-----|------|------|------|------|------|------|-----------------|
| Concentration Factor (CF)  |     |     |      |      |      |      |      |      | Loss<br>lb./ac. |
| CF   | 1   | 4   | 5    | 6    | 7    | 8    | 9    | 10   |                 |
| Loss Collected Behind Combine in 1 square foot (Grams/ft <sup>2</sup> )  | 0.1 | 0.4 | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  | 10              |
|  | 0.3 | 1.0 | 1.3  | 1.6  | 1.8  | 2.1  | 2.3  | 2.6  | 25              |
|  | 0.5 | 2.1 | 2.6  | 3.1  | 3.6  | 4.2  | 4.7  | 5.2  | 50              |
|  | 0.6 | 2.5 | 3.1  | 3.7  | 4.4  | 5.0  | 5.6  | 6.2  | 60              |
|  | 0.8 | 3.1 | 3.9  | 4.7  | 5.5  | 6.2  | 7.0  | 7.8  | 75              |
|  | 1.0 | 4.2 | 5.2  | 6.2  | 7.3  | 8.3  | 9.4  | 10.4 | 100             |
|  | 1.3 | 5.2 | 6.5  | 7.8  | 9.1  | 10.4 | 11.7 | 13.0 | 125             |
|  | 1.6 | 6.2 | 7.8  | 9.4  | 10.9 | 12.5 | 14.1 | 15.6 | 150             |
|  | 1.8 | 7.3 | 9.1  | 10.9 | 12.8 | 14.6 | 16.4 | 18.2 | 175             |
|  | 2.1 | 8.3 | 10.4 | 12.5 | 14.6 | 16.7 | 18.7 | 20.8 | 200             |

To find the value in this chart when using collection pans greater than 1 sq ft, divide the volume or weight measured by the square footage of the pan first.

| Volume Measurement Method - All Crops<br>(0.8348875 ml/ft <sup>2</sup> over each ft <sup>2</sup> in an acre = 1 bu./ac.) |     |      |      |      |      |      |      |      |                 |
|--|-----|------|------|------|------|------|------|------|-----------------|
| Concentration Factor (CF)  |     |      |      |      |      |      |      |      | Loss<br>bu./ac. |
| CF   | 1   | 4    | 5    | 6    | 7    | 8    | 9    | 10   |                 |
| Loss Collected Behind Combine in 1 ft <sup>2</sup> in Millilitres (ml/ft <sup>2</sup> )                                  | 0.2 | 0.8  | 1.0  | 1.3  | 1.5  | 1.7  | 1.9  | 2.1  | 0.25            |
|  | 0.4 | 1.7  | 2.1  | 2.5  | 2.9  | 3.3  | 3.8  | 4.2  | 0.5             |
|  | 0.6 | 2.5  | 3.1  | 3.8  | 4.4  | 5.0  | 5.6  | 6.3  | 0.75            |
|  | 0.8 | 3.3  | 4.2  | 5.0  | 5.8  | 6.7  | 7.5  | 8.3  | 1.0             |
|  | 1.0 | 4.2  | 5.2  | 6.3  | 7.3  | 8.3  | 9.4  | 10.4 | 1.25            |
|  | 1.3 | 5.0  | 6.3  | 7.5  | 8.8  | 10.0 | 11.3 | 12.5 | 1.5             |
|  | 1.7 | 6.7  | 8.3  | 10.0 | 11.7 | 13.4 | 15.0 | 16.7 | 2.0             |
|  | 2.1 | 8.3  | 10.4 | 12.5 | 14.6 | 16.7 | 18.8 | 20.9 | 2.5             |
|  | 2.5 | 10.0 | 12.5 | 15.0 | 17.5 | 20.0 | 22.5 | 25.0 | 3.0             |
|  | 2.9 | 11.7 | 14.6 | 17.5 | 20.5 | 23.4 | 26.3 | 29.2 | 3.5             |
|  | 3.3 | 13.4 | 16.7 | 20.0 | 23.4 | 26.7 | 30.1 | 33.4 | 4.0             |
|  | 3.8 | 15.0 | 18.8 | 22.5 | 26.3 | 30.1 | 33.8 | 37.6 | 4.5             |
|  | 4.2 | 16.7 | 20.9 | 25.0 | 29.2 | 33.4 | 37.6 | 41.7 | 5.0             |

To find the value in this chart when using collection pans greater than 1 sq ft, divide the volume or weight measured by the square footage of the pan first.

| Common Concentration Factors |                      |    |    |    |           |
|------------------------------|----------------------|----|----|----|-----------|
|                              | Discharge Width (ft) |    |    |    | CF<br>(X) |
|                              | 3                    | 4  | 5  | 6  |           |
| Cutting Width (ft)           | 12                   | 16 | 20 | 24 | 4         |
|                              | 15                   | 20 | 25 | 30 | 5         |
|                              | 18                   | 24 | 30 | 36 | 6         |
|                              | 21                   | 28 | 35 | 42 | 7         |
|                              | 24                   | 32 | 40 | 48 | 8         |
|                              | 27                   | 36 | 45 | 54 | 9         |
|                              | 30                   | 40 | 50 | 60 | 10        |

**Step 3: Use the pan to gather a sample.**

**Step 4: Clean the sample.** Once the combine has passed over the pan, take all contents from the pan and carefully separate the seeds from the chaff and straw. Both McDonald and Brackenreed prefer to use grading screens like you'd see at the elevator. A bucket and blower can work, although you don't want so much air that it blows seeds out of the bucket.

**Step 5: Measure the seed on a per-square-foot basis.** How much canola (by weight or volume) did you capture on a per-square-foot basis? With that measurement, use the PAMI/CCC tables to find the combine concentration factor (CF) and the loss in bu./ac. For example, if the cut width (swather or straight cut header) is 30 feet and the combine discharge width is five feet, then the concentration factor is 6 (30 divided by 5). If the captured sample is 25ml of clean seed per

*Use the table above to calculate the concentration factor for the combine. Then, once a drop pan sample is collected and measured (by weight or volume), use the tables to the left to figure out the loss in bushels per acre. Find these tables and how to use them in the 'Combine Seed Loss Guide' in the Resources section at [canolacouncil.org](http://canolacouncil.org).*



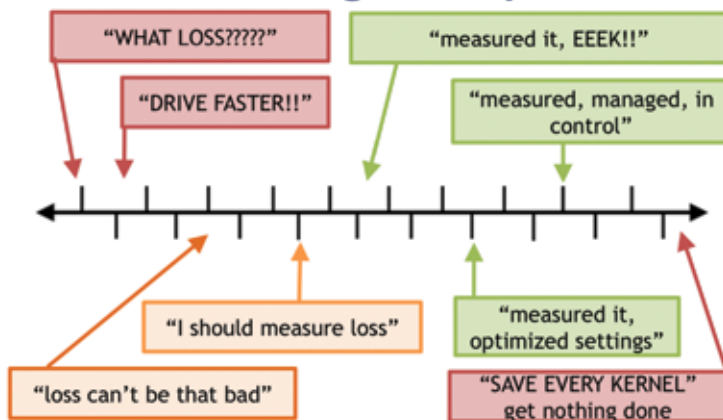
## Company experts

Who can farmers turn to for advice on their models? The best place to start is your local dealer. They will know who within the company can provide guidance on combine settings to reduce harvest loss.

You might also get good tips from the companies that make some after-market add-ons. Lane Stockbrugger, SaskCanola director and farmer from Englefeld, Saskatchewan, says this about the MAD concave they put on their combine: "Think diesel tuner or 6" lift for your

diesel truck. They are beefier. Stronger. Easier to work with. And the company has a real knack for customer service. They may be slightly rough around the edges but they know their stuff. And they appreciate their customers. We bought a set of concaves for one of our CR combines and it does a better job of threshing and cleaning the grain than the stock concaves. When we bought it though they provided very specific combine settings that were quite different than the settings we had been using for years. And it worked. Low throw over. Cleaner sample."

## Combine Loss Management Spectrum



Here is Joel McDonald's spectrum of farmer perspectives on combine losses. He recommends one of the approaches highlighted in green.

square foot and the combine concentration factor is 6, the loss level for that sample was 5 bu./ac. Apps are available to quickly run these numbers for you.

Use these loss measurements to help calibrate the combine loss monitors. At the moment the pan is released, make note of the loss monitor reading. Do this each time and keep a log. With repeated loss measurement, farmers will start to figure out what the loss monitors are really telling them.

"Loss monitors are a great tool but if they're not calibrated they can be really deceiving," Brackenreed says. "An uncalibrated monitor can indicate whether losses are getting better or worse, but they don't indicate the actual size of the loss. Calibration through repeated drop pan measurements can help estimate a bushel per acre loss."

### ARE THE LOSSES ACCEPTABLE?

"A realistic threshing loss goal is around one to two per cent of total yield," Brackenreed says. "It is not realistic to achieve zero harvest losses in canola."

If losses are in that optimal range after drop-pan checks, the farmer may not need to make significant changes. If losses are really low, it may mean an opportunity to speed up a little. But if losses are too high, be prepared to spend some time making adjustments and checking how losses change with each adjustment.

Do you like to see a spotlessly clean sample? A very clean sample may actually contribute to higher losses because the cleaning system may be blowing out a lot of seed in the quest to remove

Do you like to see a spotlessly clean sample? A very clean sample may actually contribute to higher losses because the cleaning system may be blowing out a lot of seed in the quest to remove all chaff. "This is an important point. You may want to accept some chaff in the sample."

—Angela Brackenreed

all chaff. "This is an important point. You may want to accept some chaff in the sample," Brackenreed says.

### HOW TO REDUCE LOSSES

Brackenreed recommends a thorough check at the start of the harvest season. "Every year is so different. Crop conditions, environmental conditions, combine upgrades and worn components can mean that the settings that worked last year don't work nearly as well this year," she says. "It can be frustrating, but that's why you need to check."

Set aside a couple of hours to do the first check of the season, she says. "I don't want to say it will take 15 minutes when it really could take two or three hours to work through a few settings adjustments," she says. "After that, just check when you have significant differences in crop or environmental conditions."

The Combine Optimization Tool at [canolacalculator.ca](http://canolacalculator.ca) will guide combine operators through the settings to check. To improve performance in the separation system, the tool suggests adjustment to rotor/cylinder speed, concave clearance and modifications to rotor vanes and concave grate covers. To improve the cleaning system performance, the tool provides a specific sequence of adjustments for sieve spacing and fan speed.

Remember to make just one change at a time and check between each change. "Start with preferred settings, the 'book' settings, and when making changes start with the easiest ones," Brackenreed says. "Don't jump to switching out concaves and fixing all worn components, which can take a lot of time. Instead, consider crop feed rate as step one. Am I maybe driving too fast? If losses are high, back off on the throttle a little bit and see if that makes the difference."

Ground speed also relates to crop flow into the combine. Adjust the reel (and if possible, knife position) or look to more permanent header adjustments, like auger finger timing, if having feeding difficulties. "It is absolutely critical to have uniform feeding of material into the



### PAMI surveys combine loss

PAMI surveyed dozens of fields this harvest to measure combine losses in canola fields across the Prairies. Results will be posted over the winter. Email [pami@pami.ca](mailto:pami@pami.ca) or visit the website at [pami.ca](http://pami.ca) to see the report.



The background of the entire page is a repeating pattern of flea beetles and cutworms. The cutworms are long, segmented, and have a slightly bumpy texture. The flea beetles are small, oval-shaped insects with long legs. They are scattered across the page in various orientations.

# NEED TO CONTROL FLEA BEETLES & CUTWORMS?

HERE'S  
HOW →

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machine,” Brackenreed says. “It is difficult to correct for poor feeding with setting adjustments.” As part of this, avoid doing loss checks in areas of the field that are particularly uneven relative to the majority of the field.

From there, work from front to back – from threshing to separating to cleaning until you have losses down to an acceptable level. With each change, consider how that one change might influence separating and cleaning downstream. “Say you decide to increase rotor speed to increase threshing. That one change may increase the break-down of the straw and chaff, which will change the way the material reacts to fan speed and how it will move through the sieves,” Brackenreed says. “So if you’re now experiencing more losses, it might not be directly related to the increase in rotor speed. It might be an indirect result of changing how that material is broken up and what might correct it could be more or less fan or open and close sieves at the back end.”

She adds, “Generally speaking, overloading the shoe tends to be the limiting factor in a cured swath crop whereas rotor losses can be the limiting factor in a crop that is not as dried down.”

McDonald reminds farmers that “there is no such thing as magic combine settings.” It will help to get



Harvest loss video:

[bit.ly/harvestloss](https://bit.ly/harvestloss)

“Canola Harvest Management and Mitigating Loss” on YouTube or the video section at [canolacouncil.org](https://canolacouncil.org).

Joel McDonald outlines a few scenarios. Say, for example, a farm has two combines working at 4 mph and the loss is 3 bu./ac. Those same combines operating at 3.2 mph may have losses of only 1 bu./ac. If this lower ground speed adds 15 hours to the total harvest but adds \$19,000 in extra yield, which scenario would you choose? If you want to save yield and harvest faster, would it pay to buy a third combine?

outside advice from the manufacturer (especially local specialists who know the crop and typical harvest conditions) and from combine forums. And, adding to Brackenreed’s comment about driving too fast, McDonald says the harvest speed conversation should be about bushels per hour, not acres per hour. A heavy crop will require lower ground speed, but the real question is: Are you within the combine’s optimal range of bushels per hour?

“We don’t get paid for harvesting acres, we get paid for selling bushels,” he says.

As farmers start to recognize the settings that provide the best performance for crop conditions (tough, really dry, etc.), they can dig into harvest economics.

McDonald outlines a few scenarios. Say for example, a farm has two combines working at 4 mph and



## Combine Optimization Tool shows steps to reduce loss

The combine optimization tool, developed by the Prairie Agricultural Machinery Institute (PAMI) for [canolacalculator.ca](https://canolacalculator.ca), will help farmers set the combine to keep losses as low as possible while finding a balance with productivity and grain quality.

The step-by-step process in a phone-friendly program helps operators work through the harvest issues and combine settings to correct the problem. Common settings that can influence loss are:

**Ground speed.** If feed rate is too high for efficient combine operation, a good first step is to reduce speed in 0.5 mph increments to see if and at what point there is difference in loss.

**Rotor settings.** Rotor losses occur either as unthreshed grain (as a result of not threshing aggressively enough or crop is not dried down enough) or free grain, which is grain that has been threshed but not able to exit the rotor area quickly enough, (so it “hangs on” in straw). Adjustments include rotor speed, rotor-to-concave spacing (concave clearance) and the concave wires and covers.

**Fan and sieve combination.** Air velocity is influenced by fan speed and also by sieve openings, which affect how much air is allowed to move through the crop and the air’s direction. Enough air velocity is needed to lift the chaff and move it rearward. Too little air means some seed will not be separated and will move rapidly rearward. Sieve openings must be large enough to allow grain to fall through and allow maximum air flow, but not so large that rearward movement is so slow that the chaff load falls through to overload the bottom sieve.



Photo: Gabriel Valentini

*Loss-reducing adjustments can include cylinder-to-concave spacing (shown) and the addition or removal of concave wires and covers.*

“Generally speaking, overloading the shoe tends to be the limiting factor in a cured swath crop, where as rotor losses can be the limiting factor in a crop that is not as dried down,” Brackenreed says. These two scenarios are often the difference between combining swathed versus standing crop. Dry swaths that pulverize make cleaning more difficult. Standing crop, if not treated and a little tough, might clean a little more efficiently.



# FLEA BEETLE & CUTWORM CONTROL MADE SIMPLE.



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the loss is 3 bu./ac. Those same combines operating at 3.2 mph may have losses of only 1 bu./ac. If this lower ground speed adds 15 hours to the total harvest but adds \$19,000 in extra yield, which scenario would you choose? If you want to save yield and harvest faster, would it pay to buy a third combine? These are all scenarios that McDonald says are part of the harvest loss management discussion, and it's a discussion that can only be done effectively after losses are measured. "Don't depend on gut feel," he says.

So how does he encourage a farmer make loss measurement, which can be a hassle, into a permanent part of the harvest operation?

"Find ways to make sampling easy," McDonald says. For example, get a drop pan that keeps you out of the dust, and use a set of screens to quickly separate the seed from the chaff.

Brackenreed adds that "anything is better than not checking at all." ✂

—Jay Whetter is the editor of *Canola Digest*.



*This is the typical shape of a combine loss graph. In every harvest situation, there will be a point at which losses increase dramatically. All the variables discussed in this article will influence that point, and the goal in going through these loss exercises is to find the sweet spot.*

*Sieve openings must be large enough to allow grain to fall through and allow maximum air flow, but not so large that rearward movement is so slow that the chaff load falls through to overload the bottom sieve.*



Got feedback? Please share your thoughts on this article. Do you need more information? Do you have a follow-up article idea? Email the editor at [whetterj@canolacouncil.org](mailto:whetterj@canolacouncil.org).



## Does straight-combining canola require a pre-harvest aid?

Do you need a pre-harvest spray to reduce losses or improve efficiency when straight combining canola? CCC agronomy specialist Ian Epp presented on this topic at Combine College. Here are the highlights:

- Assess the field at around 60 per cent seed colour change (around recommended swath timing) to check crop uniformity and calendar date to see if you need a pre-harvest aid to help with uneven or slow-drying crop or high numbers of green weeds that could impede smooth harvesting. If the field is clean, maturing evenly and on time, you may not need a pre-harvest aid. (Angela Brackenreed says a standing crop with ripe pods but slightly green stems actually harvests very well. She compares that situation to super-dry treated or swathed stems that easily thresh and can overload the cleaning shoe.)
- One size doesn't fit all. Be flexible with the decision. Assess each field each year to see if a spray is worthwhile. In a dry year with early-maturing crop, you might not need a pre-harvest aid. If some crops are a little later, you might leave them to naturally cure with frost.
- The product choices:
  - Glyphosate alone. Glyphosate provides effective weed control, but will not speed crop dry-down. Wait until the seed moisture content is less than 30 per cent moisture in the least mature areas of the crop before applying glyphosate.
  - Glyphosate with Heat. Heat has both contact and systemic activity, and glyphosate is purely systemic. Spray at 80 per cent brown seed. This combination is usually ready to harvest at least 7 days after treatment.
  - Reglone. Reglone is a desiccant, used to dry-down crop. It works fast and will stop crop progress. Label application is very late – 90%+ brown seed – to make sure crop is almost fully mature. Canola is usually ready to harvest 4 to 7 days after treatment.
- Do not skimp on water. Higher water rates helps improve performance in this window, and is especially important with contact herbicides applied on a thick canopy.

In general, pre-harvest aids will increase cost but reduce harvest difficulty. This was shown in a PAMI study comparing swathed canola and three straight cut scenarios: naturally ripened, sprayed with Heat and glyphosate, sprayed with Reglone. The same study also showed no difference in yield between treatments and no significant difference in quality. Reglone treated strips were harvested earlier than the other three treatments.

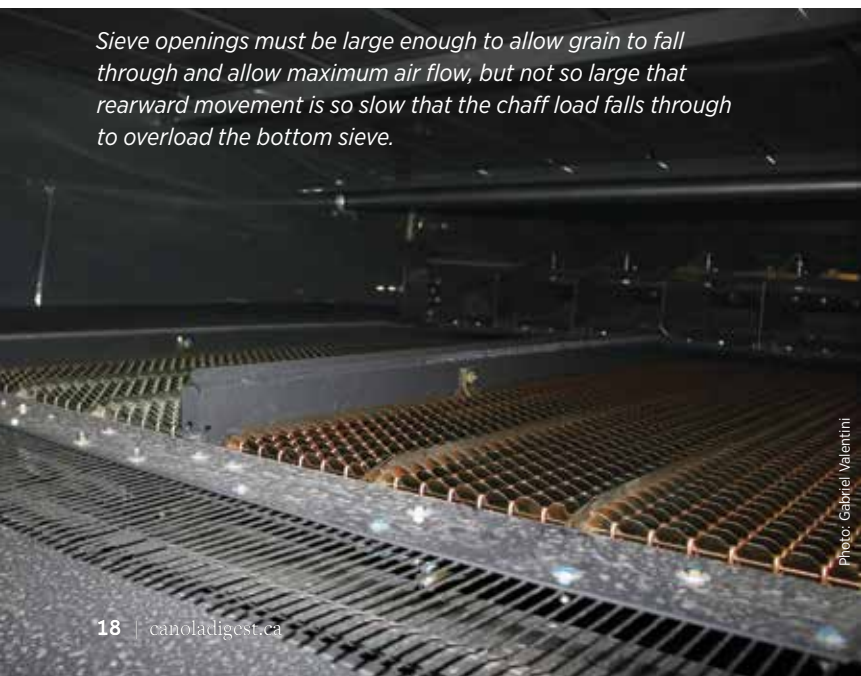


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If you want to know the grade of your canola going into delivery season, you can send samples to the Canadian Grain Commission's Harvest Sample Program. As long as the sample is an accurate representation of the canola you'll deliver, the extra knowledge could help when it comes to marketing.

# KNOW YOUR GRADE AHEAD OF TIME

BY RICHARD KAMCHEN

**T**he Canadian Grain Commission has rules for grading and dockage of all major crops. If grading results vary significantly among buyers, the Canadian Grain Commission (CGC) reminds growers that they can ask to witness the grain grading and dockage tests. Growers also have the option to officially dispute an elevator's grading result.

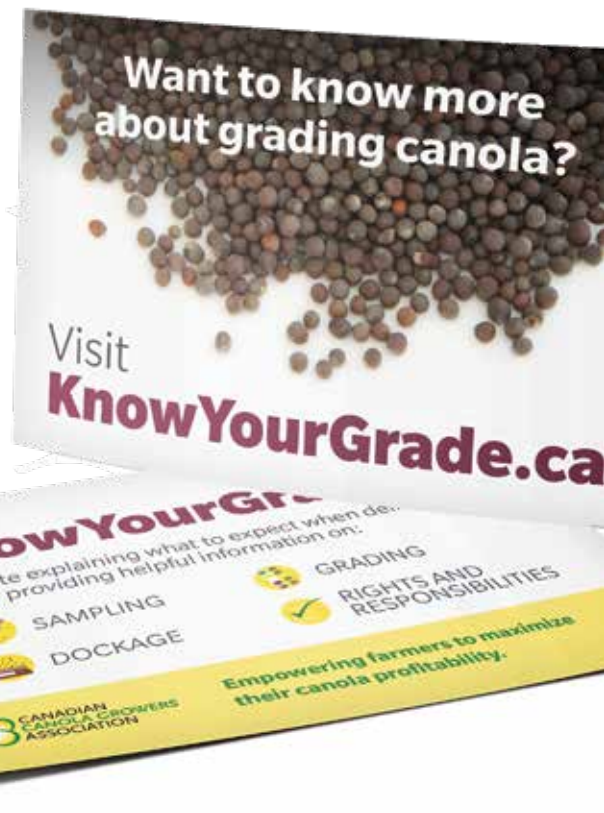
Companies should assess grade and dockage as per the Official Grain Grading Guide, says Daryl Beswitherick, the CGC program manager for national inspection standards. "And if a producer doesn't agree, they should use the 'Subject to Inspectors grade and dockage' provision," he says.

Should a grower exercise that right, an elevator must issue the grower an interim primary elevator receipt and prepare a 1,000-gram grain sample that both parties agree is representative of the delivery. A CGC inspector will inspect the sample, determine its grade and dockage and send a Submitted Sample Certificate with the results to both parties. At that point, the producer can exchange the interim primary elevator receipt for a primary elevator receipt or a cash purchase ticket that reflects the sample's results.

The CGC inspector's results can be appealed, which requires contacting the CGC's service centre within 15 days from the date on the Submitted Sample Certificate and asking that the sample be sent to the Chief Grain Inspector for Canada. The chief inspector will provide a final decision, and each person named in the request will receive a record of the decision.

Farmers, however, rarely dispute grain grade and dockage via the CGC. The government department only receives 150 to 200 samples a year, Beswitherick says.

"Some farmers don't know about the program, and some farmers tend not to use it because they're leery of upsetting their grain buyer," he says.



## HARVEST SAMPLE PROGRAM

More popular is the CGC's Harvest Sample Program, which received 13,500 samples last year. Of those, 2,600 were canola, Beswitherick says.

"What we like to tell producers is to know their grade and dockage prior to delivering their grain," he says. "For roughly \$50, you can [use the Harvest Sample Program to] get information about the commodity you're trying to market, and then know when someone gives you a good deal or not."

When signing up for the voluntary program, farmers will receive a kit containing envelopes for sending in samples of their crop. The CGC will provide an unofficial grade – because samples aren't collected by a CGC inspector – as well as a dockage assessment and oil, protein and chlorophyll content in the case of canola.

CGC recommends farmers mail their samples as soon as they finish harvesting, adding it doesn't accept samples after November 30. Results are available within 15 business days of a sample receipt, and are emailed as soon as testing is complete. Results can also be accessed through farmers' online accounts.

## KNOW YOUR GRAIN AND RIGHTS

Producers unsure of their grain quality or their right to get a fair shake can find assistance from the Canadian Canola Growers Association (CCGA).

"Last year, CCGA created a farmer resource focused solely on canola grading, with the goal of raising awareness among farmers of what to expect when delivering their grain and what rights they



“What we like to tell producers is to know their grade and dockage prior to delivering their grain.”

—Daryl Beswitherick

have,” says CCGA policy manager Janelle Whitley.

The association’s main resource for farmers is **KnowYourGrade.ca**, which provides up-to-date information on sampling, dockage and grading canola, as well as basic producer rights.

“Of particular interest are two videos on canola dockage, showing what dockage is and how it relates to a farmers’ delivery, and the official dockage process,” says Whitley.

Farmers can also learn more at Prairie-wide producer events – like the upcoming FarmTech, CropSphere and CropConnect conferences – where they can visit with CGC representatives to learn more about its provisions and programs available to farmers (detailed above), and about how canola and other crops should be graded.

For more details about the CGC’s show schedule, email [contact@grainscanada.gc.ca](mailto:contact@grainscanada.gc.ca) or call 204-984-0506 or toll free at 1-800-853-6705.

### CGC SERVICE CENTRES

In the meantime, producers submitting samples have a number of service centres to choose from.

In Saskatchewan, farmers can get in touch with Saskatoon inspection supervisor Joey Vanneste at 306-975-5714 or [joey.vanneste@grainscanada.gc.ca](mailto:joey.vanneste@grainscanada.gc.ca) or Weyburn’s Judy Elias at 306-848-3350 or [judy.elias@grainscanada.gc.ca](mailto:judy.elias@grainscanada.gc.ca).



In Alberta, inspection supervisor Scott Kippin can be reached in Calgary at 403-292-4211 or [scott.kippin@grainscanada.gc.ca](mailto:scott.kippin@grainscanada.gc.ca).

No service centres exist in Manitoba, but farmers in the province can either send their samples to service centres in Saskatchewan or drop them off at the CGC’s Winnipeg headquarters, Beswitherick says. ✖

—Richard Kamchen is an agriculture freelance writer based in Winnipeg.



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Canadian canola growers will have access to TruFlex, which expands the application rate and window for glyphosate on canola. InVigor growers will notice a new acres-per-bag approach to seed packaging. Seed companies continue to layer more high-demand traits into the same hybrids.

# NEW SEED TECH FOR 2020

BY JAY WHETTER



Credit: iStock.com/undefined undefined



## 3x3: Three board members answer three questions about canola seed



GARTH HODGES



BRAD ORR



PAUL THIEL

The Canola Council of Canada Board of Directors has three representatives from life science companies: Garth Hodges with BASF, Brad Orr with Corteva Agriscience and Paul Thiel with Bayer. These three canola industry leaders took time to answer three questions about canola genetics.

### 1. From a seed perspective, what does Canada's canola industry need to keep progressing?

**Garth Hodges:** I believe right now, more than anything, the industry needs to be instilled with the strong desire to collaborate, stand together and acknowledge our inter-dependency as we strive to weather this storm and come out stronger and more resolute to face the challenges and take advantage of opportunities. We all have the success of our industry, as a whole, at heart. We can all make significant contributions in our specific areas of expertise and then collectively strive for success. Clubroot is a classic example

of encouraging growers and seed companies to work together to manage the issue. We should both take responsibility to actively contribute to the management of this unfortunate disease. Growers have a key role to play in crop rotation, sanitation and volunteer canola management, while seed companies provide complementary help with clubroot tolerant hybrids.

**Brad Orr:** As an industry, we need to continue to advocate for global market access. Canada is an exporting nation, so we need the continued freedom to export to key geographies that rely on Canadian canola. But we need a predictable regulatory system to ensure we align with regulations in Canada and our key markets. We need to be transparent about our products and the significant value they provide consumers. We also have an opportunity to advance the industry by expanding our focus beyond just canola oil. I see Protein Industries Canada as a great initiative to help canola protein compete in a growing but very competitive market. Our goal has to be to increase value for the whole crop.

**Paul Thiel:** Continued genetic improvement, with a focus on yield and disease management, is crucial. We also need to ensure the oil and meal quality meet the needs of the market, including the demand from consumers and processors.

### 2. If you could offer Canadian growers the perfect canola seed, what features would it have?

**Paul Thiel:** It has to be easy to grow, to be profitable and to fit into the grower's rotation. To make this happen, we need to address their needs:

- Profitability. Genetics need to focus on yield and a complete package to protect that yield potential.



**N**ew InVigor RATE changes the standard 50-pound bag to an acres-per-bag approach based on four different thousand seed weight (TSW) ranges. BASF made the move so growers can more easily meet the InVigor recommended target plant population of five to seven plants per square foot. This aligns with the Canola Council of Canada's target stand recommendation.

"We found that the standard 5 lb./ac. seeding rate was not allowing growers to maximize the performance of InVigor," says Courtney Stephenson, BASF business development project manager. "Each year there are many different TSWs on the market for each hybrid. For example, there were 20 different TSWs for InVigor L233P in 2018. To decrease complexity, BASF has created four different TSW ranges between 4.0 and 5.9 grams."

Each bag will seed 10 acres based on its TSW range and the recommended target stand and seeding rate.

The seeding rate recommendation is based on 60 per cent survivability, which is the average that BASF and other field surveys have found across Western Canada.

"Targeting a plant population will help growers use resources more efficiently, optimize yield performance, improve lodging resistance, reduce sclerotinia severity, even maturity through a uniform plant structure, and improve weed control," Stephenson says. "Furthermore, each bag of InVigor will now have a consistent number of seeds and this will make planning when growers go to book seed much easier." For more information, go to [agro.basf.ca/InVigorRATE](http://agro.basf.ca/InVigorRATE).

#### TRUFLEX

TruFlex glyphosate-tolerant canola trait expands the weed label and provides more flexibility in spray rates and timing. The label has 24 more weeds than the Roundup Ready canola label, including foxtail barley, wild buckwheat and dandelion.



Results from the 2019 Canola Performance Trials will be posted at [canolaperformancetrials.ca](http://canolaperformancetrials.ca) once they start rolling in after harvest. The interactive site also has results from 2018 and earlier if you want to take a look now.

- Ease of growing/harvesting. Genetics need to provide efficient plant establishment, severe weather hardiness to cope with abiotic stress (excess moisture, drought, cold, heat) and ease of harvest (seed shatter, crop stand, etc.).
- Sustained use. Farmers need this cash crop for the long-term. Therefore, the perfect seed needs the support of perfect agronomic practices. This includes using the right hybrid on the right field, preventing pest resistance, crop rotation, fertilizer use efficiency and embracing digital capabilities, such as Climate FieldView, to drive data-based decisions.

**Garth Hodges:** The perfect canola seed will combine the ability of our breeders to unleash the crop's genetic potential and use innovation to stay ahead of the many challenges nature has in store for us. I believe we have come a very long way in making significant strides towards perfection already. We might have forgotten the revolution when hybrids and herbicide tolerance were our innovation leaps. Pod shatter reduction can also be classified as a revolution. The steady improvement in yields, yield stability and the ability to expand acres can all be seen as positive evolution over the years. So I believe we should give a great deal of credit to all our plant breeders who have tirelessly strived for perfection.

**Brad Orr:** The perfect canola seed has to satisfy the end-use customer and meet demand in the markets we're trying to fulfill. Canola obviously must have competitive productivity to keep the crop profitable for Canadian growers. With this in mind, the perfect canola seed needs the traits and technology to address productivity needs and the ever-growing demands for herbicide tolerance, disease resistance and some tolerance to pressures from insects, while increasing yield. It also needs a more predictable yield outcome in the face of adversity from changing weather patterns.

### 3. The CCC Strategic plan is targeting 52 bu./ac. by 2025. The 18 bu./ac. yield gain is split into 8 bu from genetics and 10 bu from agronomic management. How can the CCC and industry best work together to ensure these target gains from genetics and agronomic management are realized?

**Brad Orr:** We have more to gain from the heterosis of hybrids. And with mapping of the genome, we will find ways to spark better nutrient use efficiency and raise the bar when it comes to productivity under various environmental pressures. While seed companies want to protect their own intellectual property, I do think we can do more to share tools that could be used to improve the whole industry. We can work together to find the best practices for precision planting or nutrient placement, to give two examples.

**Paul Thiel:** There is a vast amount of research and investment in canola in Canada through many different parties. It creates a very competitive market, but not necessarily the most efficient. An earlier exchange on research goals, successes and technology transfers between companies and the Canola Council of Canada, as well as technical symposiums between agronomists, could leap this crop ahead.

**Garth Hodges:** The key is in the question: "work together." We need to accept that collaboration will be the secret to achieving our goals. Unleashing the yield potential in genetics is dependant on agronomic management and the success of the agronomic management is dependant on the responsiveness of the genetic potential. Together, we will need to face Mother Nature and the evolution of diseases and weeds. Education, investment in agronomy research, extension and the receptiveness of our canola growers will all make a valuable contribution to achieving our joint goals. We are in this together. 🌻

With regard to rates and timing, TruFlex canola allows for two applications of 0.67 litres per acre (L/ac.) of glyphosate from cotyledon to first flower or one application of 1.33 L/ac. of glyphosate from emergence to six-leaf stage. “First flower” is when no more than 50 per cent of the canola plants have one flower open. This varies from Roundup Ready canola, which allowed for two applications of 0.33 L/ac. or one application of 0.5 L/ac. of Roundup from cotyledon to six-leaf. In a year like 2019, when many canola fields had varying stages of maturity, TruFlex would give them the option to spray later and at higher rates.

## STACKED LL AND RR

The Liberty Link trait is now available for use in other seed programs. For example, Pioneer offers P501L, a clubroot-resistant hybrid with the glufosinate tolerance of Liberty Link. With this approval, seed companies can also now offer stacked Liberty Link and Roundup Ready herbicide-tolerant (HT) traits in the same hybrid.

What is the benefit of this? The stack means that growers can apply at least two “effective” modes of action on the same field. One recommendation to prevent herbicide-resistant weeds is to spray weeds with at least two ‘effective’ herbicide groups. A herbicide is not “effective” if some weeds in the field are already resistant to it. Glyphosate and glufosinate, the actives in Roundup and Liberty, are both effective on most weeds in Western Canada (the only current exception is glyphosate-resistant kochia). Note that tank mixes of glyphosate and glufosinate are not recommended due to the weed antagonism that occurs, so they have to be applied in separate passes.

Ian Epp, the Canola Council of Canada agronomy specialist with the weed management portfolio, says stacked HT can be particularly effective on wild oats. Many wild oat populations are resistant to multiple groups, so the stack provides a rare opportunity to hit wild oats in-crop with two effective herbicide groups.

“The LL-RR stack is best used in longer canola rotations,” Epp adds, “because volunteers can be a problem.” As a way to manage stacked canola volunteers, growers will want to use a tank mix for pre-seed burnoff (which is recommended anyway) and target volunteer canola in other crops (which is also recommended).

| InVigor RATE will have four bag ranges based on TSW |     |                            |                       |                       |                       |
|---|-----|----------------------------|-----------------------|-----------------------|-----------------------|
| Bag Range   |     | A                          | B                     | C                     | D                     |
| Recommended Seeding Rate (lb./ac.)                  |     | 4.2<br>(10 Seeds/FT²)      | 4.7<br>(10 Seeds/FT²) | 5.2<br>(10 Seeds/FT²) | 5.7<br>(10 Seeds/FT²) |
| TSW Range   |     | 4.0-4.4                    | 4.5-4.9               | 5.0-5.4               | 5.5-5.9               |
| Bag Weight  | LBS | 42.2                       | 47.0                  | 51.8                  | 56.6                  |
|   | KG  | 19.1                       | 21.3                  | 23.5                  | 35.6                  |
| # Of Seeds/Bag                                      |     | Minimum 4.25 Million Seeds |                       |                       |                       |

*This table shows the BASF recommended seeding rates based on thousand seed weight (TSW). The company has a new packaging system for InVigor canola seed, going with a seeds per bag and acres per bag approach.*

DeKalb and BASF product line ups for 2020 will include at least one stacked hybrid each.

## POWER COMBINATIONS

Growers who want clubroot resistance, pod-shatter tolerance and enhanced HT in the same hybrids will have more choice for 2020. For example, DeKalb offers DKTFLL 21 SC with the TruFlex/Liberty Link stack plus improved pod-shatter tolerance, and DKTF 98 CR with TruFlex and multi-genetic clubroot resistance. BASF has an ‘InVigor Choice’ hybrid LR344PC with the Liberty Link and TruFlex stack as well as the pod-shatter reduction trait and clubroot resistance. Canterra’s CS2600 CR-T has TruFlex, clubroot-resistance and straight-cut traits.

Notable specialty-oil varieties include Corteva’s Brevant B3010M with a new source of clubroot resistance and the new HarvestMax trait, and Cargill’s Victory V25-1T, which has TruFlex, clubroot resistance and blackleg resistance based on a combination of major and minor genes. Cargill now offers specialty-oil hybrids from four different herbicide-tolerant systems: TruFlex Roundup Ready, Genuity Roundup Ready, Clearfield and Liberty Link. 🌻

—Jay Whetter is the editor of *Canola Digest*.



Who should grow a clubroot-resistant variety? The Canadian recommendation is for farmers to grow clubroot-resistant (CR) varieties as part of a holistic clubroot farm management plan. Read more in the Saskatchewan Bulletin on **page 8**.



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## 'PALOOZA HIGHLIGHTS

**T**he Canola Council of Canada agronomy team worked with the provincial canola grower groups to organize canolaPALOOZA in Lacombe, Alberta; Sask CanolaPalooza in Saskatoon, Saskatchewan; and CROPS-A-PALOOZA in Carberry, Manitoba over the summer. These are important engagement events to share canola best management practices and priorities with farmers and agronomists in a field setting.

Autumn Barnes, CCC agronomy specialist, says the three events are a way to put grower-funded research into action. The goal is to share research results and practical applications with growers, agronomists, extension staff and other value chain representatives who attend. Here are a few highlights that can help with field work this fall and seed planning for 2020.

### USE FALL STUBBLE COUNTS TO HELP SET 2020 TARGETS

While making seed plans for 2020, growers will want to figure out what plant densities are ideal for their farm and what percent of the seeds are likely to emerge, given field conditions. The Canola Council recommends targeting a plant density between 5-8 plants/ft<sup>2</sup> and most growers can expect 50 to 60 per cent canola emergence, on average. The plant stand target is based on spring counts, but growers could make stubble counts this fall and compare that to this year's seeding rates to see how many survived. This information could help growers make plans to hit their target for 2020. Use the tools at [canolacalculator.ca](http://canolacalculator.ca) to run the numbers. For a conversation on plant establishment, listen to the Canola Watch "plant establishment" podcast with Murray Hartman, Rob Gulden and Darren Feitsma, recorded at canolaPALOOZA. Find the podcast at [canolawatch.org](http://canolawatch.org) under the "Tools & Resources" tab.

### IS THAT TILLAGE REALLY NECESSARY?

High-speed tillage tools can move more soil than the plow. Marla Riekman, soil management specialist with Manitoba Agriculture, says, "Lots of people think that these shallow units cause less erosion because they don't run as deep and therefore they are sometimes thought of as 'conservation tillage.'" But the amount of tillage erosion increases with both depth and speed, so as we see an increase in shallow high-speed tillage, we will see an increase in the rate of soil movement too, she says. Moving soil through tillage can erode topsoil on knolls and fill in drainage ditches on flat land. It also spreads



*Marla Riekman (left), soil management specialist with Manitoba Agriculture, used a trench of peas to demonstrate the distances that high-speed tillage tools can move soil. CCC agronomy specialist Gregory Sekulic (right) took the photo.*

herbicide-tolerant weed patches, clubroot and other pathogens that much faster. "My usual take-home message with tillage is to recognize the potential impact and use tillage more strategically," Riekman says. "Don't use the same implement on every acre every year, and think about your crop rotation. Consider when tillage is absolutely necessary and where you might be able to cut back."

### A CASE FOR COMBINE WEED-SEED DESTROYERS

Breanne Tidemann, research scientist with Agriculture and Agri-Food Canada, is looking at how the combine can be part of a farm integrated weed management (IWM) strategy. She is researching combine weed-seed destroyers, which include the Harrington Seed Destructor but also another Australian product called Seed Terminator and a Canadian alternative from Redekop. A weed-seed destroyer mounted on the combine puts all chaff through a cage mill. Any weed seeds in the chaff are destroyed. These crushers are not perfect because some weed seeds will shed their seed before harvest and some light and fluffy weed seeds, like thistles, don't always enter the combine. But no IWM practice is perfect. When farmers employ a few of these imperfect tools, they can achieve long-term weed control that prevents herbicide-resistant weeds from taking hold and keeps yield loss to a minimum. For a conversation on weed management challenges and IWM practices, including weed-seed destroyers, listen to the Canola Watch "Weed Management" podcast with Tidemann, Bob Blackshaw and Ian Epp, recorded at canolaPALOOZA. Find the podcast at [canolawatch.org](http://canolawatch.org) under the "Tools & Resources" tab.

Photo: Gregory Sekulic took the selfie.



## FALL BANDING TO REDUCE SEED-PLACED FERTILIZER

Canola is highly susceptible to seed-placed fertilizer, and the potential damage to seeds and seedlings is particularly high in dry spring soil conditions. The only fertilizer that should go in the seed row would be a starter rate of phosphorus (15 to 25 lb./ac. of actual phosphate), which can help get the seedlings going in cooler soil conditions and in soils with low baseline levels of phosphorus. 'Palooza plots for 2019 showed quite clearly the stand-reducing effects of seed-placed nitrogen and of higher rates of seed-placed phosphorus. CCC agronomy specialist Warren Ward says, "Distribution of phosphate at rates below 15 lb./ac. becomes so variable that many plants will not benefit from having access to it, and risk of damage increases with rates higher than 25 lb./ac., especially under adverse conditions."

Separation of seed and fertilizer can be a challenge with some drills, but crop nutrition specialists speaking at the 'Paloozas encouraged growers to find a work-around – be it fall banding or new openers that improve separation and seed-bed utilization. For more on this discussion, listen to the Canola Watch "Fertility" podcast with Norm Flore, Dale Fedoruk, Patrick Mooleki and Warren Ward, recorded at canolaPALOOZA. Find the podcast at [canolawatch.org](http://canolawatch.org) under the "Tools & Resources" tab.

## SEED TREATMENTS STILL WORK ON FLEA BEETLES

Plots at 'Paloozas clearly showed that current seed treatments work well to protect canola from flea beetles. The efficacy of seed treatments came into question this spring in areas where farmers had to spray some fields more than once to protect young seedlings from flea beetle hoards. It was a "perfect" year for flea beetles: hungry flea beetles took advantage of any warm temperatures and dry conditions, leaving the slow-growing crop extra vulnerable. So what will be the plan for next year? Some seed treatments do provide enhanced protection. Seeding in mid- or late May also seemed to reduce flea beetle damage in areas at highest risk. Growers could use the 2019 experience when planning seed treatments and seed timing for 2020. For more on flea beetles and other insects, listen to the Canola Watch "Insects" podcast with Hector Carcamo, James Tansey and Keith Gabert, recorded at canolaPALOOZA. Find the podcast at [canolawatch.org](http://canolawatch.org) under the Tools & Resources" tab. ☘

*Placing just one third of NPKS fertilizer blend into the seed row is enough to greatly reduce the stand, as shown in the four strips immediately behind this sign. The CCC recommends only a starter amount of phosphate in the seed row and everything else outside the row. Fall banding is one application alternative.*



*Existing seed treatments continue to provide good protection from flea beetles, as shown in this CROPS-A-PALOOZA demo. Strips with no insecticide seed treatment had very few plants. Strips with insecticide seed treatment had good emergence.*

## REGISTER FOR CANOLA DISCOVERY FORUM



Canola Discovery Forum 2019 is November 13-14 at the RBC Convention Centre in Winnipeg. Canola Discovery Forum provides a unique opportunity for collaboration, consensus building and dialogue with the whole canola value chain. The target audience includes canola growers, researchers, life science representatives, regulators, equipment manufacturers, economists, climatologists, agronomists and extension specialists. The 2019 forum has an integrated pest management theme. For more information and to register, go to [canoladiscoveryforum.ca](http://canoladiscoveryforum.ca).

The Canola Council of Canada's Crop Production & Innovation team serves farmers and industry by concentrating its efforts on four priority areas: research leadership and coordination, knowledge creation and transfer, preparation for emerging threats, and support for regulatory and market access efforts.

# WORKING TOGETHER TO GROW YIELDS AND OPPORTUNITIES

BY TARYN DICKSON



**T**he Canola Council's crop production and innovation (CP&I) team is focused on working throughout the value chain to maintain and build the supply of high quality canola for the Canadian canola industry. As the marshalling point for knowledge transfer and industry-wide action on issues impacting the sustainable supply of canola, the team focuses on four priority areas.

## 1. Research leadership and coordination.

The CCC leads and coordinates national research funded through the Canola AgriScience Cluster partnership (funded by the federal government, provincial canola grower associations and industry) and the Canola Agronomic Research Program

(funded by the provincial grower associations) as well as sharing those results and extending that knowledge through tools such as the Canola Research Hub ([canolaresearch.ca](http://canolaresearch.ca)). These research efforts also feed into the team's ability to bring expertise together and drive advancement on major agronomic topics impacting both growers and industry through the Blackleg, Clubroot, Fertility and Sclerotinia Steering Committees in Canada, as well as with the international research community. The CP&I team also coordinates and runs the Western Canada Canola/Rapeseed Recommending Committee (WCC/RRC) pre-variety registration trials each year, which drive the canola quality standards and breeding trends.

## 2. Knowledge creation and transfer.

In addition to have geographic responsibilities, the CCC agronomy specialists have individual areas of specialization – such as clubroot, blackleg, stand establishment and harvest management. The CP&I team also coordinates and contributes to knowledge-transfer tools such as Canola Watch, Canola Digest and the annual Canola Discovery Forum (CDF). CDF is a site of both knowledge creation and transfer, as well as focused, in-depth investigation into specific pillars. Similarly, collaborative knowledge transfer events hosted with the provincial grower groups ('Palooza events and Combine College, for example) are focused on specific areas that have the biggest impacts on





CCC agronomy specialist Justine Cornelsen, fifth from the left, is part of the International Blackleg Working Group, an example of research leadership and collaboration as well as preparation for any emerging or changing threat from the disease.



Here is the author, Taryn Dickson, setting up a booth at Combine College in Lethbridge. The event is one example of collaboration with provincial groups to enhance the transfer of knowledge.

our strategic pillars. The CP&I team is also working with a new Sustainable Supply Committee which includes senior representative members from throughout the value chain. The committee aims to coordinate industry agronomy communications to ensure knowledge and best management practices are transferred to industry and producers as effectively as possible.

**3. Preparation for emerging threats.** Investigation into Canadian and global canola and rapeseed production issues allows the CP&I team to work on emerging agronomic threats. This includes coordinating a

water monitoring program in Canada to check for potential pesticide residues and several blackleg projects to improve grower access to agronomic tools and to maintain market access. The CP&I team is involved in the Canadian Roundtable for Sustainable Crops steering and research committees, as well as efforts to demonstrate the value of biodiversity and beneficial insects, and to measure and improve the canola industry's sustainability metrics.

#### **4. Support for regulatory and market access efforts.**

The CP&I team is an important source of expertise in efforts to prevent and resolve market access issues. By working closely with the CCC's public affairs staff in Ottawa the team provides science-based knowledge behind farming practices and seasonal concerns of growers in order to best communicate with the federal government in Canada and in other trading nations. Work with federal government branches, such

as the Pest Management Regulatory Agency, ensures government has the best scientific information possible when making decisions that could impact canola growers and the industry that supports them.

As part of the *Keep it Clean!* program, the CP&I team amplifies reach to growers, retailers and agronomists with on-farm practices that ensure their crops are market ready. This helps the Canadian canola industry to continue to meet the standards of our global export customers.

These four priorities help define the key objective that the CP&I team has always strived for, which is to provide credible, evidence-based data and knowledge to support all areas of CCC activity – from production issues though to supporting market-access objectives. 🌻

—Taryn Dickson is the resource manager for the Canola Council of Canada Crop Production and Innovation team.



These four priorities help define the key objective that the CP&I team has always strived for, which is to provide credible, evidence-based data and knowledge to support all areas of CCC activity – from production issues though to supporting market-access objectives.



Left: Leadership includes encouraging growers, agronomists and anyone else visiting farms to think about clubroot biosecurity all the time. This photo is from Sask CanolaPalooza in Saskatoon.

The Canola Council connected with many of the best canola and rapeseed scientists in the world at the International Rapeseed Congress in Berlin. Here are the important messages they brought home for Canadian canola growers.



# TAKE-HOME MESSAGES FROM IRC IN BERLIN

**W**orld-class researchers, economists, agronomists and growers meet every four years at the International Rapeseed Congress to keep up-to-date on the latest information on this crop. In this article, the five CCC staff who attended the congress share discoveries that will help Canada's canola industry achieve its strategic plan to produce and market 26 million tonnes of canola per year by 2025.

## WHY OUR BEST MANAGEMENT PRACTICES MUST BE FOLLOWED

By Curtis Rempel

Many speakers opened with the message that oilseed rape planting and yields are declining in the European Union (EU). Reasons cited were the ban on neonicotinoid insecticides, specifically seed treatment use, and the very recent ban in Austria (and impending ban in other countries) on fall-applied nitrogen (N) fertilizer due to high levels of nitrates in groundwater. The takeaway for our value chain is that we need to continue advocating for neonicotinoids based upon the economic advantages and non-target safety when used in responsible IPM

programs. As producers and industry we need to implement vegetative buffer zones or filter strips around sensitive areas (i.e., wetlands) and minimize soil disturbance prior to planting within two or three metres of wetlands and sensitive habitat.

Nitrogen stewardship is also critical and without best management practices (BMPs) based on 4R principles, nitrogen use could also be restricted in Canada or our export of seed produced using N fertilizer could be restricted.

Several speakers highlighted the importance for canola (or oilseed rape) in crop rotations, as canola has a deep root that can break up sub-soil hard pan layers. This allows for better water penetration, sequesters significant amounts of atmospheric carbon, promotes soil microbes beneficial for cereals and potatoes, suppresses diseases of potato, provides humus through roots and contributes significantly to soil organic matter due to straw production.

The key message for growers and commercial agronomists is that canola in rotation not only drives profit, but also helps reduce disease and manage nutrients for other crops grown on the farm.

In order to stop decline in planted acres due to restriction on fertilizer and crop protection products, emphasis is required for breeding and agronomy for biological-based

*Left: CCC agronomy specialist Gregory Sekulic spoke at IRC about the economic value of natural non-farmed spaces and the biodiversity they provide.*







*Above: While collecting information for Canadian growers at the International Rapeseed Congress, Canola Council's Curtis Rempel also spoke about Canada's canola experience, including the need to find more value from the protein market.*

*\*For Curtis Rempel's full report, including much more detail on new market opportunities in protein and specialty oils, go to the "Editor's Updates" section at [canoladigest.ca](http://canoladigest.ca).*

## GLOBAL CONCERNS FOR CANOLA/ RAPESEED COULD RUB OFF ON CANADA

By Clinton Jurke

I attended the "Global Rapeseed Production Workshop", which was part of the Congress agenda. Participants in the workshop looked for trends and issues in growing canola/rapeseed around the world. I discovered that most regions have very serious insect, disease, climate change and regulatory issues. Canada's production issues are relatively minor in comparison. Canada and China are the only canola producing regions where yield is still increasing. Europe and Australia are flat, and this is due to insects and diseases. Insects and diseases are becoming increasingly resistant to the pesticides being used to control them in all regions. Given the regulatory challenges around pest control products and genetic tools, there are very real concerns about reduction in investment in this crop.

Genetically, *Brassica napus* allows for a lot of advancement and improvement. While it has very limited genetic diversity compared to its parents, *B. rapa* and *B. oleracea*, *B. napus* overcomes this speciation bottleneck with homeologous pairing of its chromosomes, which creates new genetic variations not found in either parent. An example is quantitative blackleg resistance that does not exist in *B. oleracea* and *B. rapa*. *B. napus* appears to have a plastic genome which allows its success despite its bottleneck beginnings.

## TIPS TO 'FUTURE-PROOF' PEST INSECT CONTROL PRACTICES

By Gregory Sekulic

Globally, regulatory agencies are tightening restrictions on use rates and patterns for pest control products. None more so than the EU, which has a de facto moratorium on new product registration and is cancelling registrations for existing products.

The result is that EU farmers are making more applications annually using a narrowing range of active ingredients, which further increases selection pressure for insect resistance. It is clear that producers need to decrease reliance on chemistry, and focus much more attention on integrated pest management (IPM) and natural controls.

Fortunately, a tremendous amount of research effort is underway in this arena, with a substantial cross section displayed and discussed at the "Future-proofing

innovation. The CCC will continue to advocate for this on behalf of the canola value chain in Canada.

Another major benefit to attending IRC was to identify opportunities for market growth for Canadian canola. Domestic and global demand for plant-based protein is increasing, and Canada's canola industry needs to find ways to break into that market. The Canadian canola industry contributes approximately \$26 billion to the economy annually but only \$600 million of this accrues from protein meal production and utilization. The soybean industry, which already dominates the market, continues to invest significantly. New canola genetic breeding lines being developed in Canada can offer some protein benefit. Average amino acid content for alanine, cysteine, glycine and methionine (amino acids needed for human health) in these Canadian canola breeding lines exceeds the national mean amino acid levels of U.S. soy meal. These new genetic breeding lines have been developed in part with producer levy and taxpayers dollars for industry.

Opportunities discussed at IRC included taurine (tau) and biodegradable industrial lubricants. Tau is an amino sulphonic acid required for aquafeed, pet food, infant formula and energy drinks. Plants do not make this; it is found only in meat, dairy and human milk. Canola tau could be used as a safe, fortified plant protein-based ingredient for aquafeed or pet food or a purified ingredient concentrate in food and energy drinks. Biodegradable industrial lubricants are also highly desirable by industry for "green" chemistry. Canola specialty lines with erucic acid levels of 58-60 per cent would have the high heat stability for use in industrial motors, drilling fluid, and other high margin uses as a biodegradable, renewable substitute for mineral oil.

insect control in a world with declining insecticidal options” workshop.

European research supplements and complements North American work on the role natural enemies can play in pest management. For example, many of the same species can be found in Canada as the U.K., such as the rove beetle *Aleochara bilineata*, an important consumer of cabbage root maggot, and the *Trichomalus perfectus* wasp, a voracious parasite of cabbage seedpod weevil.

Of paramount importance in encouraging populations of these parasites and predators is in maintaining a home and habitat for them to live unencumbered. Natural, undisturbed spaces and zero tillage work together to provide refuge for many of these species, which are sufficiently widespread and abundant across Europe and North America to be of substantial economic importance for biocontrol of pests, and reduce the need for insecticide use.

## FUNGICIDE SEED TREATMENTS FOR BLACKLEG SHOW PROMISE

By Justine Cornelsen

Blackleg is a global disease of concern for canola. Research groups from around the world have teamed up to share their findings to better understand the *Brassica napus*-*Leptosphaeria maculans* (canola-blackleg) pathosystem. While at IRC, I attended a blackleg workshop and two blackleg sessions, which allowed the research community to connect and advance their understanding of novel blackleg resistance genes. Many of the genes are now being cloned and introgressed into *Brassica napus* germplasm with Canadian researchers leading the research. The diversity in resistance genes will provide producers with the opportunity to match the specific blackleg profile within their fields.

Learning about management techniques and stewardship of

resistance sources from canola producing regions helps establish new tactics to deploy here in Canada. This will help us stay one step ahead of this pest.

Blackleg genomics continues to be the primary focus in management, but promising new work on fungicide seed treatments was also presented. These fungicides will provide producers with a new tool to manage the disease early. These products will provide early protection that will help minimize the risk of a blackleg infection at that critical infection stage where the majority of the yield loss from the disease is seen in Canada. Complex pests need diverse management plans!

“Blackleg genomics continues to be the primary focus in management, but promising new work on fungicide seed treatments was also presented. These fungicides will provide producers with a new tool to manage the disease early.”

—Justine Cornelsen

## INSECT PESTS AND MANAGEMENT CHALLENGES

By Keith Gabert

Managing crops to avoid insect pests and maintaining access to insecticides were frequent undercurrents in

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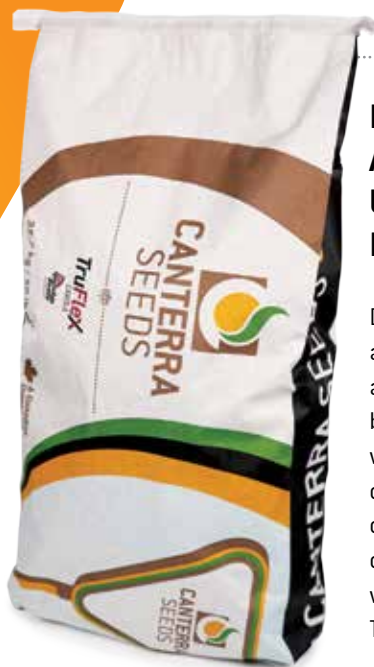
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the insect pest sessions I attended at IRC. Insecticide resistance in a number of key pests is challenging growers' ability to manage and grow oilseed rape in the EU specifically. The regulatory environment tends to limit insecticide options, leading to a quicker development of pests that are resistant to insecticides.

Getting plants to produce biologically-active compounds that deter pollen beetle, cabbage root fly or flea beetles might work, but producing canola-quality breeding material with these traits remains a distant possibility.

Crop rotation and insecticide rotation within that crop rotation is critical to a Canadian grower's success.

I got a chance to hear about specific management strategies and thresholds for pollen beetle and cabbage stem beetle, which are common pests of oilseed rape in the United Kingdom. While these treatments are not of immediate need in Canada because these insects are

not pests yet, the process used to develop these thresholds was valuable. Some of the techniques used include monitoring insect populations with ground-placed rings and traps to determine existing versus migratory populations. Tracking parasitism rates and the rise of insecticide resistance are valuable discussions and skills to understand as a Canadian agronomist. Cutting edge technology like the LIDAR (low intensity radar), which was described at IRC, could be easily adapted to Western Canada.

Researchers and industry presenting and attending IRC understand their particular local production issues very well, but are forward-thinking enough to realize that collaboration and networking at industry events like IRC can be a great source of information and contacts. For a Canola Council of Canada agronomy specialist like me, the ability to adapt this type of information or processes to issues at

home or research projects proposed for funding is invaluable.

Effective insect pest management and evaluating and predicting future threats is of critical importance for the Canadian canola industry. With relatively few insect pests affecting our crop and a comparatively harsh climate, it is to our growers' advantage to limit or eliminate the potential for additional insect pests to become established.

Maintaining access to seed treatment and foliar insecticides for what is infrequent use by global standards will assist in maintaining our competitive advantage in growing our crop. ✿

—Curtis Rempel is the Canola Council of Canada vice president for crop production and innovation (CP&I). Clinton Jurke is agronomy director for the CCC CP&I team. Justine Cornelsen, Keith Gabert and Gregory Sekulic are agronomy specialists with the CCC CP&I team.

"I got a chance to hear about specific management strategies and thresholds for pollen beetle and cabbage stem beetle, which are common pests of oilseed rape in the United Kingdom. While these treatments are not of immediate need in Canada because these insects are not pests yet, the process used to develop these thresholds was valuable."

—Keith Gabert

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# Trucking grain: DIY or custom all the way?

Canola Digest asks six farmers how they move their grain to market, why they chose 'do it yourself' or custom, and what the benefits, challenges and frustrations are with their system.

BY JAY WHETTER



**ANTHONY ELIASON**  
OUTLOOK, SASK.

**A**nthony Eliason has custom truckers move most of his grain. "It's easier to have them handle the registration and licensing. That way we can

have cheaper, older semis for our own use, and we only have them plated for when we need them," he says.

"Another advantage is that I don't have to sit in lineups. This frees me up to do lots of other things during the day. You can waste a whole morning in a lineup." Lineups are often more common for farmers who do their own trucking. "Crushers have dispatchers to arrange on-farm pick up and schedule unloads at the facility. When you deliver yourself, you have to book your own openings and sometimes have to wait all day to unload."

With custom trucking, Eliason can move grain when he's busy in the field. "That flexibility sometimes means price premiums when delivering in May or September-October when people are too busy to deliver."

Anthony Eliason has custom truckers move most of his grain. "It's easier to have them handle the registration and licensing. That way we can have cheaper, older semis for our own use, and we only have them plated for when we need them."

Finally, hiring custom operators means he doesn't have to worry about breaking down.

"I know some who have had to pay a couple-hundred dollars to get a big truck towed. I don't need that."

Eliason's primary delivery locations are at Clavet, Saskatoon, Rosetown and Davidson. "Each is about an hour away by truck, which makes it easier to shop for best prices," he says.

He compares custom truckers to find the best rate. "Most are really good and they make up for those few drivers and dispatchers who are not," he says. "I'm surprised some of them still have a job. I've had many lost drivers who were given GPS coordinates. I've had drivers drive over swaths. And I've had dispatchers cancel or postpone loads but not call to update us."

He expects new driver training regulations in Saskatchewan may shift more trucking to custom. "I took a one-week training course to get my Class 1A license when I was 19. There was good value in doing that, so the new regulations have merit," he says, "but the on-the-job training requirement will be difficult for most farmers to achieve. They will have to work off the farm to get enough hours."





**BROOKE PARKER**  
STRATHMORE, ALTA.

**F**our years ago Brooke Parker wanted to move a truck from one yard to another just a few miles away. It was a quick job, but all the farm's Class 1 truckers were tied up. That was the moment she realized she should get her Class 1. So she did.

The farm, Risdon Farming Ltd., now has four Class 1 drivers and does a significant amount of its own trucking with two Super-Bs and one tri-axle. They also maintain relationships with custom carriers to help at harvest or as otherwise needed.

"Having our own trucks gives our operation flexibility to move the drivers between truck driving and equipment operation," Parker says. "Challenges or frustrations with doing our own trucking is lineups at the elevators and untimely breakdowns." Otherwise their trucking operations work smoothly, she says.

Parker goes above and beyond farm truck requirements by having all the farm trucks certified through the Commercial Vehicle Inspection Program (CVIP). "This is a cost to us and is not required for farm trucks in Alberta," Parker says, "but we think it's important to make sure our trucks are safe."

Brooke Parker goes above and beyond farm truck requirements by having all the farm trucks certified through the Commercial Vehicle Inspection Program (CVIP).

"This is a cost to us and is not required for farm trucks in Alberta, but we think it's important to make sure our trucks are safe."



**LANDON FRIESEN**  
CRYSTAL CITY, MAN.

**L**andon Friesen farms just north of the North Dakota border and trucks a lot of grain into the U.S. This presents a few challenges. Purple farm fuel is not allowed in North Dakota. He needs U.S. Department of Transport permits for all trucks going across the border on a regular basis.

Weight restrictions are also different. Generally, weights per axle are lower in North Dakota, so he can't fill trucks as full when heading south. As a work around, he added a 'pusher axle' to one truck. The two extra wheels just in front of the drive axles allow him to carry 10,000 extra pounds in North Dakota. These axles are not approved for Manitoba, so he lifts them until he gets to the border.

Another issue with cross-border delivery is that the closest ports now have limited hours. "Customs itself has been excellent for us," Friesen says, "but our nearby ports are often only open from 11 a.m. to 7 p.m." 24-hour ports are one hour away at Boissevain or two hours away at Emerson. "Delivering through the local ports means we can usually only do one or two loads a day."

In the end, the expanded market opportunities they gain from farming so close to the U.S. are worth the extra time and cost of permits and border crossing.

The farm has four trucks and they do 90 per cent of their own trucking. "I've always liked to do things on our own. We can control when the trucks come and go," Friesen says. "And if you're going through all the steps yourself to set up for delivery to the States, then you might as well truck it all yourself."

"The roads down south are better, too," he adds.

"I've always liked to do things on our own.... And if you're going through all the steps yourself to set up for delivery to the States, then you might as well truck it all yourself."

—Landon Friesen

*Landon Friesen added a 'pusher axle' to one truck. The two extra wheels just in front of the drive axles allow him to carry 10,000 extra pounds in North Dakota. These axles are not approved for Manitoba, so he lifts them until he gets to the border.*



**KEITH FOURNIER**  
LONE ROCK, SASK.

**K**eith Fournier decided to perform major surgery on his yard to improve his trucking and marketing. The motivator was a number of situations where the elevator would call for delivery but the yard was just too soft to support the trucks. "We had to refuse because we knew the trucks would just leave ruts and make a big mess of the yard," he says.



Do you have feedback on the farmer panel? Do you want to participate in a future farmer panel? If yes, please email the editor, Jay Whetter, at [whetterj@canolacouncil.org](mailto:whetterj@canolacouncil.org).

At one point, he decided that the lost opportunities were getting too costly. So he rebuilt the yard. He stripped away all the top soil and added six inches of crushed rock for a base. “Now we’re set up for 365 days of hauling,” he says. “Even when the yard is wet and soft in March and April, we can still move grain.”

It has been good for business and for customer relations. “It doesn’t matter what the trucking conditions are like, feedlots still need barley and crushers need canola,” Fournier says. “Because we can now drive in our yard at any time of year, we can pick up a few premiums here and there in those more challenging months to help pay for the cost of the bin yard.”

The farm does most of its own hauling. “Two years ago, my nephew came back to the farm and we got him to get his Class 1 license,” Fournier says. “He drives the truck for us. The only time he can’t haul grain is when the truck is tied up to handle seed in the spring or run grain back to the bins during harvest. “When we’re busy, we won’t hesitate to bring in a custom trucker.”



**JOHN SANDBORN**  
BENITO, MAN.

**J**ohn Sandborn’s grain hauling has evolved over the years. “Back when we had elevators close by, we’d haul ourselves. Then when

the local elevators closed, we used mostly commercial trucks to transport the longer distances. Now I have a tri-axle trailer and my Class 1 license, so I haul my own grain again.”

The Swan River Valley has only one elevator and it’s at the opposite end of the valley from Sandborn’s farm. So he ends up delivering most of his canola south to the processing plants at Yorkton (Richardson and Louis Dreyfus) or Harrowby (Bunge). Sandborn likes that the processors can give him a specific delivery time slot and he says they’re usually pretty good at keeping on schedule.

He also likes the flexibility of hauling his own grain. “Truckers don’t usually like waiting around if I have to clean up the bin bottoms. With my own truck, I can load up from the bin bottoms on my own time,” he says. “Another advantage is that I can haul off the combine. I can load the truck in the evening, then leave at 4 o’clock in the morning and be back before the fields are ready to harvest again.”

Disadvantages of hauling his own grain are navigating the big valleys in the area. He likes routes without any intersections that require him to yield the right-of-way. He also tries to limit trucking in winter so he doesn’t have to drive around the icy corners at the bottom of

“Because we can now drive in our yard at any time of year, we can pick up a few premiums here and there in those more challenging months to help pay for the cost of the bin yard.”

—Keith Fournier

The ideal custom trucker, says John Sandborn, is one who knows your yard and will look after loading themselves.

“That way, if they don’t get to your place when they planned, I don’t have to wait. I just set things up for them and they look after the rest.”

“I now have full-time people working for me, so one way I can justify keeping them on all year is to put them on our own trucks.”

—Roger Chevrax

steep river valleys and so he can avoid loading in the cold. Salt used in the winter is really hard on trucks and trailers, he adds. “You don’t want to leave it or corrosion kicks in, but it can be hard to wash the trucks at -30°C. In that situation, I have to use heaters to thaw things out so the brakes work.”

While Sandborn will use custom haulers from time to time, he says it can be hard to find one on short notice. “They have to keep their trucks rolling and are usually booked up for a week or two in advance.”

The ideal custom trucker, Sandborn says, is one who knows your yard and will look after loading themselves. “That way, if they don’t get to your place when they planned, I don’t have to wait,” he says. “I just set things up for them and they look after the rest.”



**ROGER CHEVRAUX**  
KILLAM, ALTA.

**R**oger Chevrax used a lot of custom truckers when he worked off the farm.

Whenever he booked a sale and arranged for on-farm pick up, he

would ask for two or three days notice so he could have everything set up. He wasn’t able to get back to the farm while he was away working, so things had to be organized in advance. “But the trucker would often call en route and tell me he’d be there in an hour,” he says. “It was a common frustration. I wasn’t around so I would have to ask a neighbour to get the bin and auger ready.”

Now that Chevrax is back to farming full time, he does most of his own trucking. At harvest, he uses two tandem trucks, basically as high-speed grain carts, to move grain from the combine to the bin. “We have five bin-yards around the farm and the farthest distance from field to bin is about two miles,” he says. For transportation to elevators or processors, he has a tri-axle semi.

“I now have full-time people working for me, so one way I can justify keeping them on all year is to put them on our own trucks,” Chevrax says.

Custom truckers still do some of the long-distance deliveries. Chevrax wishes all custom truckers were as reliable as a local trucker he prefers to hire. That trucker brings everything he needs, including a drag auger for the bin bottoms. “He almost likes it better when I’m not there,” Chevrax says. But he can’t use the local trucker for a lot of the long-distance deliveries, especially to feedlots in southern Alberta, because the feed-sales brokers have pre-arranged contracts with their own truckers. ❀

—Jay Whetter is the editor of *Canola Digest*



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# Chef asks Canadians to choose canola oil

The Canola Eat Well program is building a canola-smart group of chefs, dietitians and food writers across Canada. These ambassadors were a big help in raising canola awareness when China restricted imports of Canadian canola seed.

BY ELLEN PRUDEN



Photo: Josh Tenn-Yuk

**W**hen the news hit mainstream media about China restricting imports of Canadian canola seed, the Canola Eat Well community of ambassadors reached out to express concern and support for canola farmers. Canola Eat Well staff received emails, texts and messages from our chefs, dietitians and food writers asking what could they do for the canola farmers. It was an overwhelming show of support for the farming community.

Canola Eat Well is a partnership with Manitoba Canola Growers, SaskCanola and Alberta Canola, working to enhance the canola oil brand in Canada. See more at [canolaeatwell.com](http://canolaeatwell.com). As part of its role, Canola Eat Well staff host various food and nutrition events each year to build awareness among key food influencers, including chefs, dietitians and food writers. These Canola Eat Well ambassadors saw the canola-China news stories every day on the TV news or national newspapers and they wanted to help.

A plan came together for Canola Eat Well to encourage and equip its ambassadors to remind Canadians how they can support canola farmers by choosing canola oil every day.

Ned Bell, executive chef at Vancouver Aquarium, took immediate action. He talked to Global News Vancouver

twice with a message of support for Canadian farmers and spoke to the impact China has on his city's labour force. "I'm a proud Canadian chef. My food is globally inspired and locally created. I just felt this urge to celebrate the Canadian farmer because they bring us our food," Bell says. "Food is the one thing that connects every Canadian."

"What we also saw was concern from consumers questioning the quality of canola oil," says Jennifer Dyck, Canola Eat Well manager. Reminding Canadians about canola oil's high quality and health benefits was part of the message.

Another ambassador, food communicator Libby Roach, wrote about her farm experience during Canola Connect Harvest Camp, which included riding a combine with Binscarth, Manitoba farmer Paul Orsak. "Safe high-quality canola is a product you can count on," Roach wrote. "It is versatile, affordable and distinctly homegrown. If you're a proud Canadian like me, put your money where your mouth is, and take the pledge to make it canola." ❀

—Ellen Pruden is the Canola Eat Well director for Manitoba Canola Growers. Canola Eat Well, a partnership of provincial canola organizations, does canola oil market development for consumers in Canada. Find out more at [canolaeatwell.com](http://canolaeatwell.com).

*Chef Ned Bell, one of the Canola Eat Well ambassadors, took immediate action after China restricted Canadian canola seed imports. He went on TV encouraging Canadians to support their farmers and buy canola oil.*



See Ned Bell's Global Vancouver interview here: [globalnews.ca/video/5097633/bc-salmon-salad-with-canola-honey-dressing](https://globalnews.ca/video/5097633/bc-salmon-salad-with-canola-honey-dressing)



## Top 10 core statements about canola oil

Canola Eat Well provides our ambassadors with some key statements to help share the message about canola oil. You can use the same information when talking to neighbours, family, friends or media. Here are our Top 10 core statements when talking about canola oil in conversations about China or any other market challenges:

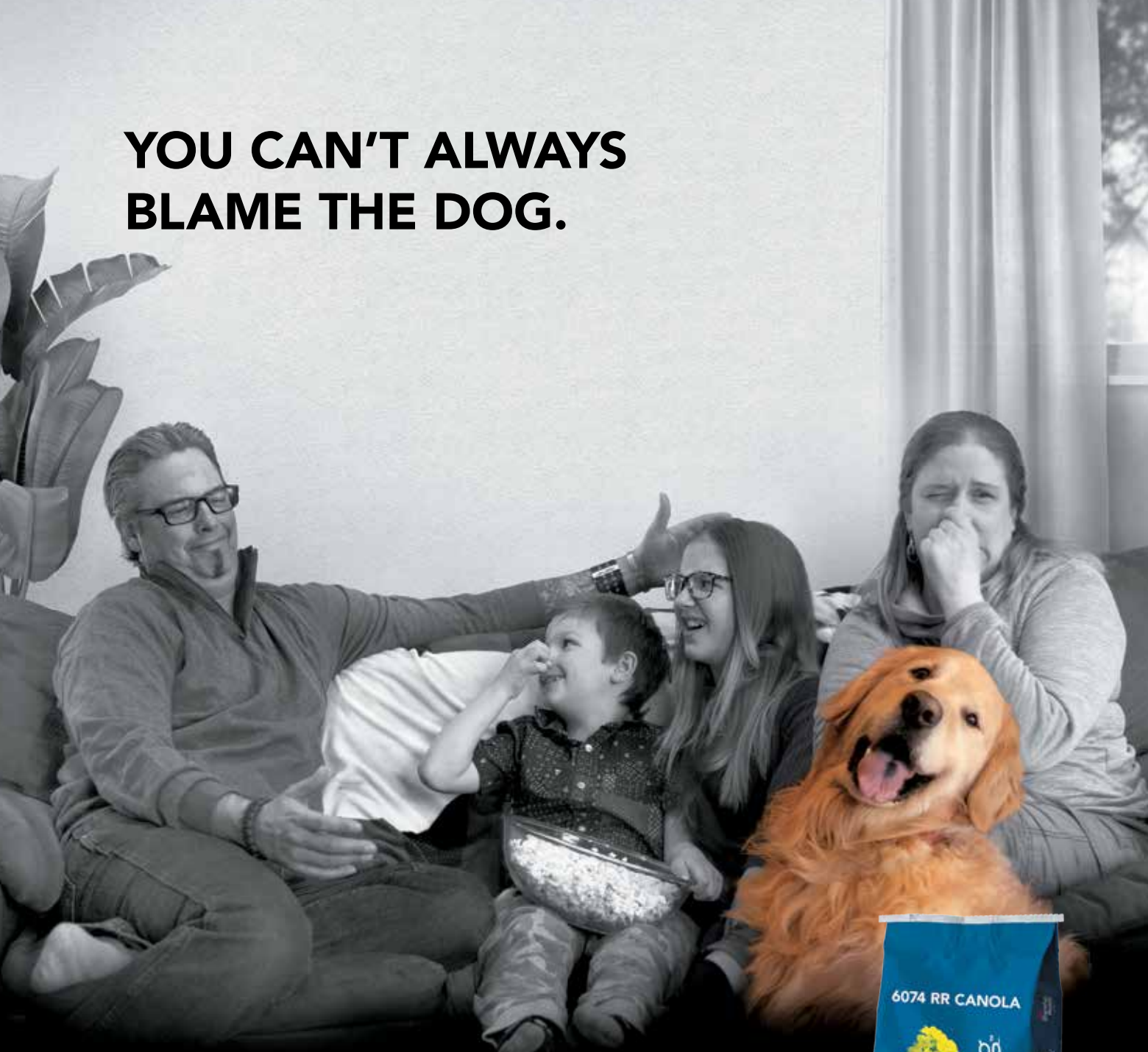
1. The quality of Canadian canola continues to meet all of the requirements of countries from around the world.
2. Canadian canola farmers grow the best for Canadians and for customers around the world.
3. I am proud to use canola oil in my kitchen.
4. Canada is the largest exporter of canola.



5. Canola is an important crop grown in Canada.
6. There are 40,000 Canadian canola farmers.
7. Canola has been the number one source of farm revenue from crops for over a decade.
8. Canola is a key contributor to farm profitability and sustainability.
9. Share your connection to your farm. Why is canola an important crop to you?
10. Personalize the 'why' to media: how these market challenges affect you, your community, your sustainability plans on the farm and what it means to the region of the country you live in. A great resource is 'Economic impact of the canola industry,' posted online at [bit.ly/canolaimpact](https://bit.ly/canolaimpact).



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The stars are aligning for canola biofuel. Industry groups say a strong market signal is all it will take to shift Canadian production into high gear.

# READY TO FUEL A BIOFUEL BOOM



Credit: iStock.com/Hajohos

BY GAIL GRANGER

**F**or years, all signs have pointed to a coming surge in demand for plant-based biofuels. Now, as nations hustle to meet their Paris Climate Accord commitments, that surge is almost here – and it could not be arriving at a better time for the Canadian canola industry.

“It’s an opportunity we’re ready for, and one that we need right now,” says Jim Everson, CCC president. “Biofuel is a growing export opportunity for canola, but more importantly, it’s the key to creating a larger domestic market that is not at risk from trade actions. It’s one of our best opportunities to bring more stability to the demand side of our business.”

Both here in Canada and around the world, all conditions seem right for further expansion of biofuel demand.

Fossil diesel used for transport is one of the biggest sources of greenhouse gas (GHG) emissions – and that means the move to cleaner-burning alternatives is one of the most effective ways to meet carbon-reducing commitments.

And now, thanks to developments in production technologies, the switch to higher blends of alternative fuels has never been easier. The latest ‘renewable diesel’ products require no modifications to engines or infrastructure because they are virtually identical in chemical structure to fossil diesel.

Conventional refineries can also go a step further by inserting canola right into their existing fossil fuel processing. They can now process petroleum and biofeedstocks together, integrating the renewable

content right into the product coming out of the plant.

“This move to co-processing holds considerable potential because it gives refineries an opportunity to get in on the action,” says Chris Vervaeke, executive director of the Canadian Oilseed Processors Association.

As Canadian biofuel production gears up, canola will be a feedstock of choice, says Fred Ghatala, director of carbon and sustainability for industry association Advanced Biofuels Canada. While many types of vegetable oils can be used to produce fuel, canola provides one of the lowest carbon intensities – in large part because Canadian growers have such a strong track record of sustainable production practices.

And while other fuel alternatives are still in development, canola is

A good start would be an immediate increase in the Renewable Fuel Regulation mandate to five per cent, up from the current two per cent. With this increase, about 1.3 million tonnes of canola seed would be used for domestic biofuel production every year. The value of that canola at the farm gate would be about \$650 million.



## Biofuel Buzzwords

Carbon intensity (CI) is a widely used metric of greenhouse gas emissions associated

with different types of fuel. It measures how much carbon is released into the atmosphere throughout the fuel’s entire life cycle, from cultivation to combustion per unit of energy.

**Renewable diesel** is a newer type of biofuel that is processed using hydrogen, rather than methanol, to turn feedstocks into biofuel. Hydrogenation removes oxygen, which makes the fuel virtually chemically indistinguishable from fossil fuel. Renewable diesel

requires little or no modification to equipment and infrastructure and can be used in high blend ratios. Biodiesel and renewable diesel can be used together to achieve added emission benefits.

**Co-processing** is simultaneous production of fossil fuel integrated with biofuel. Rather than blending biofuel into the finished petroleum product, the two are processed together in a petroleum refinery.

**The Renewable Fuel Regulation** is the existing federal regulation specifying the minimum amount of biofuel that must be contained in Canadian fuels. The current

national minimum for renewable content in diesel is two per cent. Some provincial governments have set higher minimums in their jurisdictions.

**The Clean Fuel Standard** is the federal government’s proposed framework for achieving 30 million metric tonnes of annual greenhouse gas reductions by 2030. When implemented, the Clean Fuel Standard would require producers and importers to reduce the carbon intensity of the fuels they supply. Environment Canada’s final regulations for the Clean Fuel Standard are expected to be published in 2021, with liquid fuel requirements coming into force in 2022.



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*Jim Everson, president of the Canola Council of Canada, wants to see Canada's Renewable Fuel Regulation mandate increased to five per cent, up from the current two per cent. With this increase, about 1.3 million tonnes of canola seed would be used for domestic biofuel production every year. The value of that canola at the farm gate would be about \$650 million.*

proven, tested and ready to be used as a feedstock. For more than 15 years, the value chain has been hard at work demonstrating how well canola biofuel performs and how positively it impacts the environment.

With all of these advantages converging, biofuel has become the top focus of the Canola Working Group – the government-industry coalition formed earlier this year in response to the current trade disruption with China.

How much, and how quickly, can the growing demand for biofuel offset the loss of export sales to China? A lot depends on how Canada's own biofuel policies evolve over the next year.

The current federal government proposal is the Clean Fuel Standard (CFS), which would require fuel producers and importers to gradually reduce the carbon intensity of the fuels they supply. Analysis commissioned

by Advanced Biofuels Canada shows that the CFS could result in 3.5 million tonnes of canola oil being used for biofuels annually by the year 2030. But to realize this goal, the CFS would need to include a clear market signal for biofuels, which is lacking in its current design.

Perhaps a greater challenge is the looming federal election, which creates uncertainty around the future of the CFS. While the Liberal government sees it as a key pillar of the Pan Canadian Framework to achieve Paris Accord targets, the Conservative Party has said it will scrap the CFS if it forms the next government. The Conservative Party's climate plan does pledge to increase the availability and use of renewable fuels, but details aimed at encouraging growth in the biofuel sector aren't clear.

"We're concerned that we see no explicit measures for biofuel in the Conservatives Party's climate plan," Everson said. "With so much opportunity, and at such a critical time for our industry, it should be a strong focus of every party. The economic and environmental imperatives are just too great."

Regardless of the election outcome, industry advocates want to ensure that Canada's regulations include a clear and robust signal to increase the renewable content of fuels used in Canada.

A good start would be an immediate increase in the Renewable Fuel Regulation mandate to five per cent, up from the current two per cent. With this increase, about 1.3 million tonnes of canola seed would be used for domestic biofuel production every year. The value of that canola at the farm gate would be about \$650 million.

"That's the kind of certainty the processing industry is looking for," says Vervaeke. "If there's a clear incentive for increasing long-term demand for biofuels, the investment to scale up production will come. We've done all the groundwork. All we need now is a strong signal from the federal government. It's among the most important policy priorities for the industry right now."

While continuing to advocate for strong biofuel policies in Canada, the CCC is also clearing the path for export sales to the most promising biofuel markets. One of the next big items on the council's to-do list is a submission seeking approval of Canadian canola as a renewable diesel feedstock in the U.S.

Securing access to these markets is a big task, Everson says. It took two years to complete the intensive documentation and analysis required when the EU introduced more stringent rules for feedstocks under the latest renewable energy directive (RED II).

But the effort paid off. At the beginning of 2018, the EU approved the Canadian submission, guaranteeing access to the world's largest biofuel market until at least 2023.

Not all feedstocks fared as well when RED II came into effect in 2018. Palm oil did not make the cut, and will be phased out of European biofuel production by 2030.

"That's why it's essential that we keep improving the sustainability of Canadian canola, and keep demonstrating that advantage to the world," Everson said. "As the world embraces biofuels, sustainability is becoming a more important part of our value proposition." ❀

—Gail Granger is a freelance writer based in Winnipeg.

## GET YOUR FARM CERTIFIED FOR EXPORT TO THE EUROPEAN UNION

### STEP 1



#### DETERMINE YOUR ELIGIBILITY

Use the Assessment-Ready Checklist to ensure you qualify and have the required documentation for certification.

### STEP 2



#### CONTACT YOUR LOCAL GRAIN HANDLER

They'll provide you with a short questionnaire (paper or online) to ensure you meet the sustainability certification requirements.

### STEP 3



#### GET CERTIFIED

Return your completed questionnaire to your grain handler. A small, random sample of growers will be assessed as part of the certification process.

### STEP 4



#### EXPAND YOUR MARKET ACCESS

**Congratulations** — you have greater access to exclusive market opportunities like the Europe biodiesel industry.

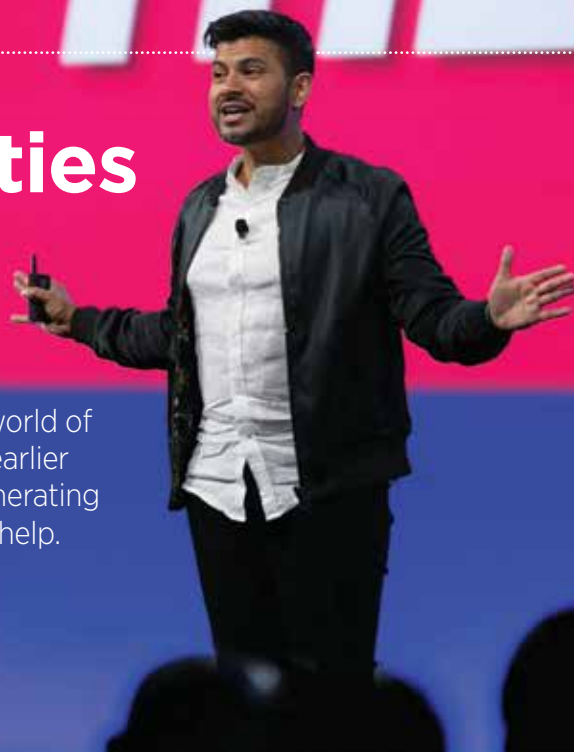
→ To learn how to certify your farm for EU export visit [canolacouncil.org/EUcertified](http://canolacouncil.org/EUcertified)





# Leverage third parties for exponential growth

Shawn Kanungo, in his presentation on “Leadership in a world of disruption” at the Canada Crops Convention in Montreal earlier this year, says a business can greatly expand its profit-generating capacity and reduce its time-strain by leveraging outside help.



BY JAY WHETTER

**T**he business mindset that drives the move to leverage third parties – that is, to hire outside non-staff help – is this: “I can do this job, but can somebody else do the work at a radically cheaper cost?”

Farmers have learned to do most jobs on the farm. They also own, in most cases, the equipment needed to do all field, yard, transport and maintenance jobs. But is that the best, most efficient and lowest-cost approach in all cases? Maybe not.

That is the kind of critical-analysis question that Shawn Kanungo, a ‘disruption strategist,’ would encourage all business owners to consider. Kanungo worked at Deloitte for 12 years, with a mandate to help corporate executives understand and plan for the opportunities and threats associated with major changes to the business ecosystem. He is now a partner with Queen & Rook, a firm that helps organizations adopt exponential technologies and move to the digital age. He spoke at the Canadian Crops Convention, the joint Canola Council of Canada and Canada Grains Council event, in Montreal in March.

Kanungo lists the three traditional methods for business growth: make more stuff, hire more people or take over other businesses. Now, he says, businesses have a fourth more powerful option for “exponential” growth: leverage third parties.

He uses Kylie Jenner’s Kylie Cosmetics as an example. Kanungo says the billion-dollar company, which 21-year-old Jenner owns, has a tiny staff that basically manages the brand and markets it through her massive Kardashian-driven social media following. “She doubled-down on her core competency,” Kanungo says, “and outsourced everything else.”

Of course we don’t all have the Kardashian media brand and background wealth, but Kanungo’s point is that her company activities are almost entirely done by third parties – and her business growth has been exponential.

A discussion about how your farm business can grow – in terms of profit per acre, in terms of time and lifestyle – might include a new approach to third-party work. These are important ways to innovate, Kanungo says.

When people get together to brainstorm innovative ideas, the conversation often steers toward new products. Farm-specific conversations on how to innovate might lead off with new technology or new crops to add to the rotation. “But shiny new products are not the best ways to innovate,” Kanungo says.

Bigger, more disruptive innovations to the farm business could be found in production methods, in team management, in time management or in the value chain. And any one of these steps could see significant improvement through more strategic use of third parties.

Kanungo encourages farmers to look beyond new products and brainstorm alternatives in areas you’ve never thought about before. Are there steps that take time or have low return on investment that can be eliminated or hired out at lower cost? Re-evaluate some



## 10 meaningful moves

Shawn Kanungo recommends *Ten Types of Innovation*. The book, written by a team at Doblin, a division of Deloitte, is based on analysis of 2,000 successful innovations and the “10 meaningful moves that great innovators typically make.” The authors show how businesses can use these principles for meaningful growth.



of those old common questions: What is the cost to own and operate a sprayer throughout the year? A truck? A combine? Yes, when you own the machine, it will always be there when you need it, but what is the cost for that benefit? Is there an option that is considerably cheaper and almost as good? What are the biggest logistical challenges throughout the year? Why are those a challenge? What alternatives could provide a game-changing improvement?



## TIPS TO GUIDE THE CONVERSATION

Using Kanungo's input, here is a checklist that a farm business can use to discover new ideas and practices that could improve results:

1. Look at challenges within the business and within the value chain. Where are the inefficiencies? What one or two things might make the biggest difference to time management or stress reduction? What jobs do you wish someone else would do for you? Where can we develop

Kanungo says the process of leveraging third parties for growth requires an open mind, experimentation and a willingness to "unlearn" hard-wired practices. One way to approach unlearning, Kanungo says, is to "imagine the business without any preconceived notions."

deeper and more valuable partnerships? (For more on this, Kanungo recommends the article "Business ecosystems come of age" by John Hagel at the Deloitte Insights website.)

2. What farm management practices are done because of nostalgia – because "that's the way we've always done it"? Kanungo says nostalgia kills innovation. Is there a better way? Can you let go of that old method?
3. What are other farms doing? When you see things that might work on your farm, take the idea and give it a try. "You don't have to come up with all the ideas," Kanungo says.
4. What are innovative start ups within agriculture doing? How are others reevaluating the way farming is done? If farming is changing, who is changing it? And is there a place for you in this new model?

Kanungo says the process of leveraging third parties for growth requires an open mind, experimentation and a willingness to "unlearn" hard-wired practices. One way to approach unlearning, Kanungo says, is to "imagine the business without any preconceived notions." You have this land. What is the best way to use this land? You have this skill. What is the best way to use this skill? You have these connections. What are the best ways to amplify these connections for business?

Kanungo encourages a business culture of experimentation to test ideas. "How do we do the smallest experiment to see if there's something viable there?" Kanungo says. That's the thing about third-party help. They're not on staff. You can hire them to do one small job or one field to see how it goes. And it can be more than field work. Think bookkeepers. Family meeting coordinators. Accountants. Business growth consultants. Career coaches. Grain brokers. The list goes on.

Think of all the third parties that could help transform the business. Test drive a few of them. Leverage the ones that can lead to exponential growth. That is innovative thinking. ✨

—Jay Whetter is the editor of *Canola Digest*.

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