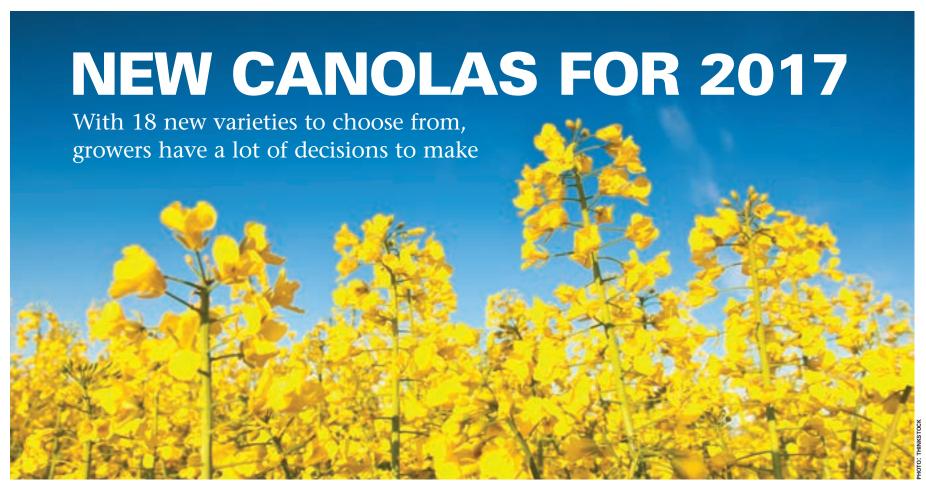
Tallews

PRACTICAL PRODUCTION TIPS FOR THE PRAIRIE FARMER

www.grainews.ca



BY LEEANN MINOGUE

armers shopping around for canola seed for next spring are spoiled for choice. We've rounded up a list of 18 new varieties hitting the market for the first time in 2017. These 18 come in addition to the high-yielding varieties we've already been seeing in western Canadian fields for the past decade.

This roundup of new varieties includes seed with pod shatter reduction for farmers who want to straight cut, and new clubroot-resistance packages for growers in infected areas. New varieties also come with higher yields. The future of canola crops is looking bright (yellow).

This list is organized alphabetically. Remember, we've only included those varieties that are new for 2017.

BAYER

InVigor L230:

Early-maturing InVigor L230 displays outstanding yield potential with exceptional lodging resistance. This NEW Evolution hybrid is ideal for growers who prefer an early-maturing hybrid.

InVigor L230 yielded 103.9 per cent of checks (InVigor 5440 and Pioneer 45H29) in 2014-15 WCC/RCC trials. Standability is Strong to Very Strong; rated R for blackleg; LibertyLink.

InVigor L233P:

Bayer is pleased to announce a NEW Evolution hybrid with the pod shatter reduction trait, InVigor L233P. This early-maturing high-yielding hybrid provides greater harvest flexibility for growers who want help managing their day-to-day workload during the busy harvest season. InVigor L233P yielded 108.8 per cent of the checks (InVigor 5440 and Pioneer 45H29) in 2014-15 WCC/RCC trials. Standability is Srong; rated R for blackleg; LibertyLink and pod shatter reduction.

BRETTYOUNG

BrettYoung 5545 CL:

5545 CL is the newest addition to the BrettYoung Clearfield portfolio with a new level of yield and performance for any Clearfield canola. It is rated R for blackleg with mid-maturity. 5545 CL maintains 5525 CL's agronomic profile with excellent standability and ease of

harvest while making a significant step forward in yield. Initial results obtained from 2016 yield trials indicate performance of 5545 CL is exceeding that of registration trial data.

BrettYoung 6086 CR:

6086 CR is clubroot resistant with intermediate tolerance to 5X along with excellent tolerance to blackleg in a hybrid that yields well with mid-maturity, and is more compact and slightly earlier than 6076 CR. 6086 CR has excellent standability.

CARGILL

VICTORY V14-1:

V14-1 (Roundup Ready) is a break-through hybrid. Part of the Cargill Specialty Canola Program, V14-1 delivers high-performance, reaching yields of 110 per cent of 74-44 BL and 107 per cent of VICTORY 12-1. VICTORY V14-1 is clubroot resistant and has a unique multigenic blackleg resistance package. It has exceptional standability and simplifies harvest management offering bigger yields and higher returns. Contact your Cargill representative or independent dealer, or visit www.victorycanola.com.

CPS

PV 560 GM:

PV 560 has built-in resistance to pod shatter plus even maturity. It is a Genuity Roundup Ready hybrid powered by the Pioneer Protector HarvestMax trait and provides harvest flexibility for swathing or straight cut situations. Yield potential is 110 per cent of PV 530 G, excellent standability and a strong MR for blackleg. Available exclusively at Crop Production Services retails.

PV 581 GC:

PV 581 GC is a new high-yielding clubroot resistant Genuity Roundup Ready hybrid with Pioneer Protector clubroot resistance traits. With a yield potential of 112 per cent of PV 530 G plus excellent standability, PV 581 GC is an exceptional tool for use within a responsible clubroot management rotation. Available exclusively at Crop Production Services retails.

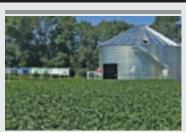
PV 590 GCS:

PV 590 GCS is a yield leading canola hybrid developed with resistance

» CONTINUED ON PAGE 4

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In This Issue



NEW SOYBEAN VARIETIES LEEANN MINOGUE PAGE 6



SOILS AND CROPS: 40 YEARS LES HENRY PAGE 28

Wheat & Chaff	2
Features	5
Crop Advisor's Casebook	. 10
Columns	20
Outstanding Young Farmers	33
Machinery & Shop	40
Cattleman's Corner	48
FarmLife	55

Wheat & Chaff





"I just asked if that was better."

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LEEANN MINOGUE

hankfully, I don't have photos of ice-covered crops to share with you. The weather isn't ideal on our farm. It rained again last night and we still have 200 acres of flax out in the field. But compared to many other farmers across the Prairies, we can't complain. There are farmers with far worse weather, and farmers with much more crop out in their

Really, our biggest problem is just mentally moving on. Instead of cursing the weather, we're doing our best to resign ourselves to the fact that we'll probably be harvesting this &#\$% flax in the spring, in the middle of seeding. Since we can't harvest, we might as well enjoy the fall colours, and finish what fall work we can get to before the real winter season

Fall is my favourite time of year. The trees have turned and look great. With all the recent rain, our lawn is still a little green, but it's not growing so fast that we have to mow it. We still have some garden produce to eat, but the "weeding season" is over. This time of year is win-win, all the way around.

I'm not a hard core bird watcher. I can barely tell one from another. But I do like the huge flock of snow geese that's settled in just south of the house. I also like the bird hunters that migrate north from the United States this time of year.

Yesterday, I was working at home when a tall man dressed in full camouflage came to the door. He had a camouflage jacket, pants, books, hat, bandana. Add

the dark sunglasses, and in many parts of the world, a woman in the house alone might lock the door and hide in the basement. Not in Saskatchewan in fall. I opened the door right away, and a very nice man from North Carolina with a great Southern accent offered me a jar of homemade breadand-butter pickles and a couple of pairs of socks. He likes hunting pheasants in some of the treed sloughs on our land, so he stops by with small thank-you gifts. This is the second year he's come. We haven't had the nerve to look a gift horse in the mouth and ask him why he's bringing us socks. My husband's theory is that the man lives near a sock factory. My theory is that he's noticed the holes in my husband's socks and is taking pity. Either way, it's a nice surprise.

Another regular long-time visitor often brings us packages of applewood-smoked bacon. If you haven't had applewood-smoked bacon, I can't begin to describe it. All I'm telling you is that it's nothing like the bacon I buy at the Co-op. Again, we're not exactly sure why he chooses bacon when he wants to bring us a gift, but we're not going to risk our supply by asking any questions.

We don't get a lot of tourists in our part of the world. If the tourists are going to come bearing pickles and bacon and praising the beauty of our fields, bring it on.

Happy fall.

PHOTO ERROR CHALLENGE

Last week I had an email from Brian Rossnagel, professor emeritus of barley and oat breeding at the Crop Development Centre at the University of Saskatchewan. Brian wrote, "I enjoyed your recent Grainews article re malt barley but found it interesting that the article was headed by a picture of rye and not barley. I do get frustrated by print media

often using the wrong crop picture for articles. I find this especially sad when this happens in dedicated ag media."

That was embarrassing.

I usually ask my farmer-husband if I'm not sure about a photo. I didn't ask about the barley/rye photo. I should have. We keep a file of stock photos, and obviously have one mislabeled. I'm sorry, and I'm embarrassed.

This is easy to do. When the federal government announced that they'd reached an agreement with the Chinese government on canola trade, farmers on Twitter were quick to point out that the photo that came out with the message from Justin Trudeau's Twitter account was a photo of mustard, not canola. I'm sure it wasn't an intentional slight on farmers. Probably, like me, his communications staff have a few mislabeled photos in their stockpile. And even if they wanted to double check crop types, they probably don't have farmer-husbands to consult. At least they knew to use something with yellow flowers. I'll call that a win for canola growers.

To give me a little more incentive not to run an incorrect photo again (as if being publicly shamed isn't enough), I'm issuing you a challenge.

When you see a badly mislabeled photo in the print version of Grainews, the kind of photo that makes you sigh and say, "I wish the media understood farming," send me an email. The first reader to let me know about a grievous error will get a one-year free subscription to the magazine (or an extension, if you already have a subscription.)

I've already arranged a one-year subscription extension for Brian Rossnagel. Brian, thank you for letting me know about the rye/ barley error, and inspiring me to create this challenge.

Leeann

HEARTS

Ask for hearts

When you renew your subscription to Grainews, be sure to ask for six Please Be Careful, We Love You hearts. Then stick them onto equipment that you, your loved ones and your employees operate. That important message could save an arm, a leg or a life.



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Leeann Minogue is @grainmuse Lisa Guenther is @LtoG Lee Hart is @hartattacks Scott Garvey is @machineryeditor





Brad took this photo when he was out with the mower, cleaning up some of the cattails in the slough. Since the photo was taken, we've picked up that wheat swath.



Grain storage for profit and safety

going into a bank. It's a deposit for the future. Unlike hard, cold, cash, grain can spoil if it isn't properly stored or maintained. Spoiled grain can cost you dollars, stored grain can commonly occur during a bad harvest year (as much of the prairies is facing this fall) but can also result from poor management.

Grain that is stored at lower temperatures and with low moisture content can be kept in storage longer before it starts to deteriorate. When storing grain, make sure that the maximum moisture content levels are not exceeded for the type of grain you are storing. You can find this information from your provincial agricultural specialists. If your maximum moisture content levels are higher options in the way to condition the grain.

No matter what method you use to condition your grain, it's important to follow manufactures' guidelines with any equipment you may be using. It's also important that if you're moving grain to remember lockout-tagout procedures so no one accidently gets caught in moving equipment or grain.

According to Purdue Extension, grain goes out of condition because grain temperatures are not controlled. Improper control of temperature can cause moisture to move from one part of the stored result in grain spoilage. Modern grain management to control temperatures means using aeration. (Moving grain from bin to bin can also be used

rain going into a bin is much like cash to equalize temperatures, but this means having an empty bin, and having the time to do this.) Once again, no matter the technique or equipment you use to achieve acceptable grain storage temperatures, make sure to follow the manufacturer's guidelines and use all safety precautions.

> The best place to store grain is in facilities that are weatherproof and provide good ventilation. It's important that the place where you store your grain cannot be accessed by pests or be directly impacted by the weather. And of course avoid storing new grain on top of old grain that may have spoiled or be infested by insects.

> often for signs of moisture migrating through the grain. Perdue Extension recommends checking weekly during fall and spring months and every two weeks during the winter. Setting a regular day of the week as part of your routine will help you remember to check on your stored grain.

> Properly stored grain has far less of a chance of becoming spoiled and becoming a major hazard. Spoiled grain can bridge and create grain walls that mean having to enter to clean up the mess it has left behind. Entrapments often happen because people enter grain bins to knock down a wall of spoiled grain and end up trapped underneath the grain as it avalanches down. Good storage and management could mean the difference between life and death.

> For more information about farm safety, please visit casa-asca.ca.

Canadian Agricultural Safety Association, www.casa-acsa.ca



AGRONOMY TIPS... FROM THE FIELD

Plan 2017 from last season's challenges

ake a hard look at the challenges you faced this past season and use them as the foundation for your 2017 planning.

Many areas across the Prairies received heavy rainfall late in the season. All of that excessive moisture can have a major effect on your grain quality and disease levels in your fields. This past season was a banner year for cereal diseases, as well as sclerotinia in canola and pulse crops.

That's why you need to take a look at your rotation for 2017. For example, if you got hit hard by sclerotinia, consider seeding a nonhost crop such as a cereal so that you don't have back-to-back crops (canola and pulses) susceptible to the same disease.

Crop rotation alone can't prevent infection, but it can reduce your potential for yield loss by minimizing the buildup of disease inoculum in your fields. You can also tailor your fungicide and seed treatment choices based on how much disease pressure you faced.

If you're planning to reuse seed from last season, get it tested for germination, vigour and disease levels. Having your seed tested is essential to help determine whether your seed is suitable to use in 2017, or if you need to look into new genetics.

This agronomy tip was brought to you by Chadrick Carley, agronomic services manager with Syngenta Canada.

YOU MIGHT BE FROM THE PRAIRIES IF...

By Carson Demmans and Jason Sylvestre



You have cheered a road construction crew for completing repairs.

PHOTO CONTEST

GIVE US YOUR BEST SHOT



Joe Mans took this photo northwest of Picture Butte, Alta. Joe wrote, "The sun dog with the windmill is probably a once-in-alifetime shot." Thanks for sharing this! We're sending you a cheque for \$25.

Send your best shot to leeann@ fbcpublishing.com. Please send only one or two photos at a time and include your name and address, the names of anyone in the photo, where the photo was taken and a bit about what was going on that day. A little write-up about your farm is welcome, too. Please ensure that images are of high resolution (1 MB is preferred), and if the image includes a person, we need to be able to see their face clearly.

NEW SEED VARIETIES

» CONTINUED FROM PAGE 1

NEW CANOLAS FOR 2017

to both clubroot and sclerotinia. A Genuity Roundup Ready hybrid with Pioneer Protector Plus traits, it has a yield potential of 105 per cent of PV 530 G, an R rating for clubroot and blackleg and an MR for sclerotinia. Available exclusively at Crop Production Services retails.

CPS/PROVEN SEED

PV 540 G is a high yielding and yield stable Genuity Roundup Ready hybrid from Proven Seed with a yield potential of 110 per cent of PV 530 G. It has world-class blackleg protection with a very strong R rating. PV 540 G has excellent standability and will perform across all geographies of Western Canada. Available exclusively at Crop Production Services retails.

PV 580 GC:

PV 580 GC is the first true multi-genic clubroot-resistant canola hybrid and offers the best clubroot protection package available. A Genuity Roundup Ready hybrid from Proven Seed, PV 580 GC has a yield potential of 100 per cent of PV 530 G and an R rating for clubroot and blackleg. Available in limited quantities exclusively at Crop Production Services retails.

XCEED X122 CL:

XCEED X122 CL is bred specifically for the brown and dark brown soil zones to better tolerate heat and drought. A Clearfield canola from Proven Seed, it is canola-quality brassica juncea with excellent standability and blackleg resistance plus improved pod shatter resistance for better straight-cut performance. Available exclusively at Crop Production Services retails.

DEKALB

76-65 RR is a new broad-acre hybrid with solid agronomics, excellent dry-down and improved pod integrity that offers the option for straight cutting. It has an R-rating for blackleg and competitive yield performance (101.7 per cent of 45H33 in 2011-15 DEKALB Field Scale Trials).

75-45 RR is a new hybrid with a broad-acre fit, offering the unique combination of high yield potential with early maturity. It has an R-rating for blackleg and was the highest yielding DEKALB canola hybrid in the 2015 DEKALB Market Development Trials.

DOW SEEDS

Nexera 1024 RR:

A new generation of Nexera canola, the 1024 Roundup Ready hybrid offers improved profitability for 2017. 1024 RR offers improved yield potential, clubroot resistance as well as excellent standability and harvestability. This hybrid is well suited to the mid- and longseason growing zones in Western Canada.

Nexera 2024 CL:

The 2024 Clearfield hybrid offers improved profitability for 2017. 2024 CL offers improved yield potential, multi-genic blackleg resistance as well as excellent standability and pod-shatter resistance, and can be considered for straight cutting. This hybrid is well suited to the mid- and long-season growing zones in Western Canada.

DUPONT PIONEER

45M35 is a Genuity Roundup Ready canola hybrid that contains the built-in Pioneer Protector HarvestMax traits. It is very high yielding with moderate resistance to blackleg and resistant to fusarium wilt. This hybrid offers the benefit of reduced pod shatter because it contains the Pioneer Protector HarvestMax traits. Pioneer hybrid 45M35 gives the grower the benefit of harvest flexibility as you can straight cut or swath this hybrid with excellent results.

45CS40:

45CS40 is a Genuity Roundup Ready canola hybrid that contains built-in Pioneer Protector Plus traits with resistance to both clubroot and sclerotinia, providing protection from clubroot and more than 60 per cent reduction in

Both of these canola hybrids have excellent early growth with very good standability and exceptional yield potential and are available at all local Pioneer Hi-bred sales representatives across Western Canada.

SYNGENTA

SY4187 is the second clubroot-resistant hybrid from Syngenta. It delivers an exceptional agronomic package, which includes clubroot resistance, multi-genic blackleg resistance and tremendous yield potential giving growers a hybrid that will deliver a promising return on their seed investment. For local yield results and additional information, visit http://www.syngenta.ca/Productsdetail/ SY4187-Canola.

Leeann Minogue



CPS had plots of its new PV 590 GCS canola on display at the Ag In Motion farm show near Saskataoon last summer.



This new Clearfeield Nexera canola variety from Dow Seeds did not yet have a formal name during the growing season. This variety has been branded as 2024 CL.

The new varieties

For years, Grainews has been providing lists of new seed varieties for readers. In this issue we've got the new canola varieties, and you'll find the list of new soybean varieties on pages 6 and 7. We've saved corn, flax and cereal crops for the next issue, and our list of pulse varieties will come later in the winter.

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CROP PROTECTION

Controlling bugs with seed treatments

BY KRISTIN HACAULT

echnology has given western Canadian farmers access to a wide range of options when it comes to insect control in canola. Crucifer and striped flea beetles, wireworm, cutworm, root maggot, cabbage seedpod weevil, berth armyworm and diamondback moth are just some insect pests that can be particularly problematic for both crop health and farmers' bottom lines.

Insect populations depend on weather, climate, management, wind patterns and previous season environmental conditions. Consequences of improperly managing insects include crop

and yield loss and decreasing crop quality, which can result tors to consider when selecting the pest. For example, a seed in both economical and biologia control method: cal impacts. For example, root maggot damage can make plants more vulnerable to pathogens such as blackleg. For insect pests that feed on

crops early in the growing season, seed treatments can be an effective management technique by protecting crop seedlings when they are most vulnerable to attack from both, insects and pathogens. Farmers can control insects through both management and chemical techniques, including seed treatments, which place the protection at the right place, at the right time in the correct dose.

1. Adhere to economic thresholds. Not all insect damage is of economic importance and using action or economic thresholds can assist growers in deciding if chemical controls need to be applied.

2. Understand the pest affecting the crop and to scout fields often. Using a seed treatment will help get the crop off to the best start, but insects can attack crops throughout the season so managing and scouting for these various pests is

3. Foliar treatments can be utilized as well. This depends

Here are three important fac- on the pest and the timing of treatment will often not protect crops against later-season pest infestations. For example, in canola, a seed treatment is unlikely to prevent an outbreak of bertha armyworm later in the growing season. If thresholds are reached, then foliar sprays may need to be applied to assist in protection.

For more information on seed treatments and purchasing seed, speak to your seed company, crop protection representative, extension personnel, or retail or crop advisor.

Kristin Hacault is seed treatment sales and marketing leader for DuPont Pioneer and DuPont Crop Protection Canada.

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SU-tolerant canola from Cibus

Cibus' sulfonylurea-tolerant

BY: DILIA NARDUZZI

ibus, a U.S. company, is bringing a new sulfony-lurea-tolerant canola to the market.

Cibus developed SU-tolerant canola using non-transgenic breeding technologies. That is, breeding, without introducing foreign genetic material. As Dr. Jim Radtke, Cibus' senior vice president, product development, says, we are "making changes in plants without incorporating foreign DNA and thus the plants are non-GM."

The breeding system used in the Cibus labs is called RTDS (Rapid Trait Development System). Radtke says RTDS allows researchers to make targeted, precise changes to plant DNA. "This separates us from GMO technology, which basically tosses a piece of DNA into the plant that wasn't there before."

The changes that result from RTDS are changes that could feasibly happen in the natural environment without intervention, though they probably wouldn't happen quite as quickly. For example, the DNA of a plant can change in the natural environment due to weather, chemicals and other factors. "Our technology is a little more precise," says Radtke, "and there's not a lot of collateral damage, which can happen when mutations occur in nature."

Gene editing technology has its detractors and its controversies, of course, (when people "don't quite understand" the process, says Radtke) but given that GMO technology is becoming more and more controversial globally, gene edited products may fill voids created in the food system.

JUMPING THROUGH THE HOOPS

Cibus' new variety has been approved by the Canadian Food Inspection Agency and Health Canada for sale in Canada in 2017. "The Canadian regulatory system is one of the best in the world," says Radtke. Our system has a "plants with novel traits" designation and Cibus's canola fits into that category.

Now, Cibus needs to get a particular variety registered. To date, their varieties didn't pass the canola quality standards due to being slightly low on oil content. However, new hybrids have passed the first year of canola quality standards and are expected to pass the second year as well, Radtke says. Because Cibus' hybrids are not yet registered, they can't actively sell them in the Canadian market. The hybrids don't yet have brand names.

When varieties are ready for registration, Radtke says, they'll focus on Manitoba first, but will expand beyond that. Radtke says Cibus has found retailers interested in selling their new varieties.

Trials were done in Canada and North Dakota last year. Radtke says the new hybrids that will be coming to Canada performed better than the older ones. There were both small and large trials done and the new product "performed really well" in North Dakota.

North Dakota farmers growing

the product on commercial fields, says Radtke, reported back very positive views on "performance of the product, but also, more importantly, the performance of the SU chemistry. It has controlled the weeds, and fits nicely into their rotations. That's a good, in-field validation of the trait."

THE AGRONOMY

The major benefit that comes with SU-tolerant canola is the ability to fit into rotations. Soybeans are moving into more and more areas of the Canadian Prairies, and, Radtke points out, "all of them are Roundup Ready. And Roundup Ready soybeans and Roundup Ready canola do not work well on

a rotation." (Bayer is selling a new LibertyLink soybean in Western Canada for the spring of 2017.)

SU-tolerant canola "controls the Roundup Ready soybeans that would be in the field as potential weeds. The SU herbicide is able to take out weeds that are tolerant to Roundup, and that's a very good thing." (In the U.S., sulfonylureatolerant soybeans are marketed as SR soybeans.)

Good rotational strategy is important and depending on only one product is a fast way to develop herbicide resistant weeds.

Visit Cibus.com for more information about the company and its new technology.

Dilia Narduzzi is a freelance writer in Dundas, Ont.



Dr. Jim Radtke, Cibus' senior vice president, product development, explains that Cibus' breeding method results in SU-tolerant, non-GMO canola.



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rep, retail location or seed
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MONSANTO BIOAG PRODUCTS



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Your rewards accumulate with your qualifying-product purchases. The more you buy, the bigger your reward cheque.

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and to calculate your potential rewards, visit RealFarmRewards.ca

*Monsanto will not issue a cheque for amounts less than \$100. **Payout to a maximum of 2x of Genuity® Roundup Ready® canola acres purchased.

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NEW SEED VARIETIES



New soybean seed for 2017

Twenty new soybean varieties are coming to the market for western Canadian farmers

BY LEEANN MINOGUE

you haven't been watching the market for new soybean seed, you have some catching up to do. There are 20 new varieties — that's right, 20 — for 2017. And that is just the *new* varieties, not the almost-new varieties that have been released in the last two or three years.

Companies have been investing breeding research dollars into soybean varieties that can be grown in areas with a shorter season. For growers in traditional soybean-growing areas, retailers are offering stronger disease packages and higher yield potential.

Evaluating all of these varieties and choosing the best option for your farm is going to take some time. Start early.

This list is alphabetical, and includes only varieties that will be new to the market in 2017.

BAYER

NSC Mollard LL:

For 2017, one LibertyLink soybean variety will be available for Western Canada. NSC Mollard LL from NorthStar Genetics is a 2450 CHU (00.6 relative maturity) variety with a branchy plant architecture, very high iron-deficiency chlorosis (IDC) score, and mid-tall height with high pods for an easy harvest. For weed control, Liberty 200+ AMS tank-mix is registered on LL soybeans in Western Canada. Bayer does recommend a Group 1 herbicide tank-mix with Liberty on soybeans; speak to your Bayer representative for further information.

BRETTYOUNG

BrettYoung E50P52 R:

E50P52 R is a new VT Double PRO RIB Complete Corn Blend technology from Elite that delivers corn borer protection without the hassle of planting a separate refuge. E50P52 R has excellent spring vigour and high-yielding genetics. E50P52 R has a solid agronomic profile that adapts to varying growth conditions. It is rated at 2300 CHU and has a dent type kernel with excellent dry down and bushel weight characteristics. E50P52 R has good resistance to Goss's Wilt.

BrettYoung Lono R2:

Lono R2 is a new medium maturity (2450 CHU 00.5 Relative Maturity) soybean from Elite that offers excellent pod height with a semi-bushy to bushy medium tall plant. Lono R2 is suitable for planting in all row spacings and is semi-tolerant to IDC. Lono R2 has excellent tolerance to white mould and phytophthora root rot (Rps 1K gene). It has been a consistent performer in the MCVET trials over the past two years.

BrettYoung Podaga R2:

Podaga R2 is a new RR2 soybean from Elite suited to the long season soybean areas of

Manitoba. It is rated at 2525 CHU and 00.8 relative maturity. Podaga R2 has a tall plant that is suited to all row spacings and has performed consistently in trials in the past two years. It has good tolerance white mould, phytophthora root rot (Rps 1K gene) and is tolerant to IDC. Podaga R2 is a full season per-

BrettYoung Marduk R2X:

Marduk R2X is the latest in soybean genetics from Elite. Marduk R2X combines Roundup Ready 2 Xtend trait for glyphosate and dicamba tolerance in a great agronomic package suited to the key soybean production areas of southern Manitoba. It

is a medium to tall semi-bushy plant that has provided consistent yields across all zones in trials. It is semi-tolerant to IDC and has good resistance to phytophthora (Rps1c gene) and is resistant to soybean cyst nematode and performs well against white mould. It is rated at 2425

CPS/PROVEN SEED

PV 10s005 RR2:

PV 10s005 RR2 is a Genuity Roundup Ready 2 Yield midmaturity soybean with an ultrahigh yield of 114 per cent of mean. It has a relative maturity of 00.5 (2425 HUs), top class white mould resistance, lead-

ing emergence, excellent standability and is well-suited to highly productive soil in wide and narrow row production. PV 10s005 RR2 is the first soybean variety from Proven Seed and is available exclusively at Crop Production Services retails.

CROPPLAN

RX0636 0.6 Xtend:

RX0636 0.6 Xtend is new with 2675 CHU. It is high yielding, tall aggressive and branchy, a better fit on heavier soil and minimum tillage. This variety prefers wide rows.

RX2436 2.4 Xtend:

shown consistent yields across environments and comes with a good disease package.

RX3015 3.0 Xtend:

RX3015 3.0 Xtend is new with 3225 CHU. It is robust, tall and branchy, and stands well. It comes with a great disease package and nice phenotype.

3150 CHU. It is medium height,

bushy, and stands well; fits all

soils and tillage systems. It has

DEKALB

22-61RY:

22-61RY is a new Genuity Roundup Ready 2 Yield variety with 2275 CHU. It is a medi-RX2436 2.4 Xtend is new with um-to-tall plant with very good





Features



emergence, and is well suited to all soil types and row widths. This variety also has very good phytopthora root rot tolerance and aggressive growth that will make it a great fit for tougher growing conditions.

DKB005-52:

DKB005-52 is a new Genuity Roundup Ready 2 Xtend variety with 2425 CHU. It can be described as having medium height and very good standability. This variety features an excellent agronomic package such as very good white mould tolerance, soybean cyst nematode resistance, and excellent tolerance to phytopthora root rot. It is well suited to all soil types and row widths

DOW SEEDS

DS006771:

DS0067Z1 is a Roundup Ready 2 variety with 2450 HUs and excellent yields. DS0067Z1 provides strong emergence combined with good PRR giving you good stand establishment. Available through your local Dow Seeds representative.

DUPONT PIONEER

P005T13R:

P005T13R is a glyphosate tolerant soybean variety with very good early emergence and stability. In 2015 and 2016, it provided an average yield increase of 1.1 bu./acre over Pioneer varietv P006T78R with 59 per cent wins in 22 large scale field comparisons across Western Canada. P003T13R also comes with builtin 1C phytophthora resistance.

P006T46R:

P006T46R is a very consistent and high yielding Glyphosate tolerant soybean variety, with above average early emergence with very good lodging resistance and has the built-in phytophthora 1C gene. In 2015 and

2016, it provided an average yield increase of 2.2 bu./acre over Pioneer variety P006T78R with 70 per cent wins in 23 large scale field comparisons across Western Canada.

DuPont Pioneer will be releasing new soybean varieties in 2017 in small volumes.

PRIDE SEEDS

PS 00095 R2:

PS 00095 RS is a new introduction for the late 000 maturity group with the Roundup Ready 2 Yield trait. This variety presents an opportunity into the very short season growing areas. Best performance on narrow row widths. Above average IDC rating. Ideally suited for 2275 CHU. Excellent white mould resistance and good field tolerance to phytophthora root rot. Available at your nearest PRIDE Seed Dealer 1-800-265-5280. Pending registration. Maturity Group: 000.9.

PS 0055 R2:

PS 0055 R2 is a new introductory 2425 CHU Roundup Ready 2 Yield trait variety ideally suited for short season zones. Above average IDC tolerance. Excellent phytopthora Rps 1k tolerance, standability and disease resistance. Adapted to all soils, handles stress extremely well, and can be planted in no-till, minimum till practices. Excellent white mould resistance. Best yields will be experienced in seven to 15" row widths. Available at your nearest PRIDE Seed Dealer 1-800-265-5280. Maturity Group: 00.4.

0066 XR:

0066 XR is a new, exciting introductory 2450 CHU PRIDE Seeds Roundup Ready 2 Xtend variety ideally suited for the mid to long season zones. Provides tolerance to dicamba and glyphosate herbicides. Exceptional standability for ease of harvest. Good field

tolerance to phytophthora root rot. Excellent white mould resistance. Good plant height in marginal and heavier soils. Available at your nearest PRIDE Seed Dealer 1-800-265-5280. Maturity Group: 00.6.

SECAN

Barron R2X:

Barron R2X is a 2250 CHU Roundup Ready 2 Xtend variety (tolerance to Roundup and Dicamba for broader weed control). Barron R2X is a tall, branchy, aggressive plant type with great yield potential for its maturity range. Available from member retailers.

Barker R2X:

Barker R2X is a 2425 CHU Roundup Ready 2 Xtend variety (tolerance to Roundup and Dicamba for broader weed control) with average maturity suitable for all eastern Prairie growing areas and great upside yield potential. IDC rating is semi-tolerant and the variety has the rps1K resistance gene for Phytopthora and the resistance gene for cyst nematode. Available from member retailers.

SYNGENTA

S001-B1:

S001-B1 is a high-yielding soybean in early group 00. A medium-tall plant with dependable standability, S001-B1 features excellent iron deficiency chlorosis tolerance, and contains the Rps1c gene for phytophthora root rot with very good field tolerance. For local yield results and additional information, check out http://www.syngenta.ca/ProductsSeed/S001-B1/ soybean.

S003-L3:

S003-L3 soybean seed features distinguishing pod clusters and a unique plant type. It is broadly adapted across yield environments and features very strong iron deficiency chlorosis tolerance. It demonstrates strong emergence, combined with very good phytophthora field tolerance, for planting into cool soils. For local yield results and additional information, visit http:// www.syngenta.ca/ProductsSeed/ S003-L3/soybean.

S006-W5:

S006-W5 soybean seed has demonstrated exciting, top-end yields. It features a unique Rps stack (Rps1a, Rps3a) for superior phytophthora protection, and is well-suited for highly productive soils. For local yield results and additional information, visit http://www.syngenta.ca/ ProductsSeed/S006-W5/soybean.

THUNDER SEED

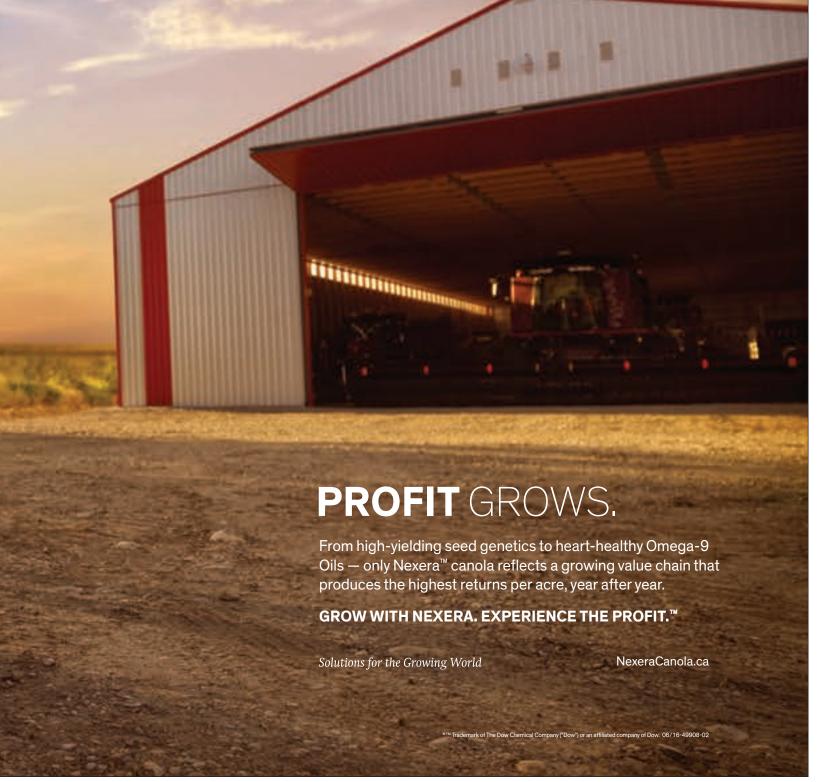
TH 87000R2X: TH 87000R2X is an ultra early soybean for Western Canada, 2250 CHU. It has excellent yield potential and good spring vigour. It's a tall, aggressive branchy type. Does well in reduced tillage.

TH 87003R2YX:

TH 87003R2YX has excellent IDC tolerance, 2375 CHU. It has excellent yield and an exceptional disease package. It works well in wide rows. It's a tall, aggressive variety.

Leeann Minogue is the editor of Grainews.





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Winter wheat seed: treatment pays

A dual fungicide/insecticide seed treatment builds hardier winter wheat stands

BY LEEANN MINOGUE

espite the benefits of winter wheat — weed competitiveness, high yield potential and a schedule that allows growers to spread out work load and capital costs — it's still not a staple crop for many western Canadian farmers. Farmers say concerns about planting logistics and poor stand establishment are obstacles to growing winter wheat.

To find solutions, several researchers worked together on a two-part study testing different winter wheat agronomic practices at nine locations across the western Canadian prairies over three years.

As with most research studies, the outcomes don't provide a magic bullet solution — results and recommendations are highly complex and can vary from region to region. But Dr. Brian Beres, Agriculture and Agri-Food Canada agronomy research scientist at Lethbridge, Alta., does recommend using a seed treatment with a dual fungicide and insecticide to get the best results from your winter wheat.



SEED TREATMENTS AND WINTER WHEAT

In Part 1 of the study, a research group including Beres and headed up by Dr. Kelly Turkington, AAFC pathology research scientist at Lacombe, Alta., looked at the impacts of seed treatments and fall-applied fungicide on winter wheat during the 2011, 2012 and 2013 growing seasons.

Researchers compared five combinations: a check of no seed treatment, two different single fungicides, a single insecticide, and a dual treatment that included both fungicides and the insecticide. Not surprisingly, the comprehensive package yielded the best results, Beres said, "Both from a crop response standpoint as well as a net return standpoint."

This comprehensive treatment included a combination of Bayer CropScience's Raxil 250 FL, a Group 3 fungicide with the active ingredient tebuconazole; Bayer's Allegiance FL, a Group 4 fungicide with the active ingredient metalaxyl; and Bayer's Stress Sheild a Group 4A insecticide, a neonicotinoid with the active ingredient imidacloprid. This combination is sold by Bayer as Raxil WW.

Researchers also tested each of these five seed treatment options both with and without a fall-applied foliar fungicide — Bayers' Proline 480 SC, with active ingredient prothioconazole, a Group 3 fungicide, applied at the three-to four-leaf stage with surfactant Agral.

In every situation, they seeded CDC Buteo seed with a Conserva Pak air drill with a Valmar air delivery system and knife openers spaced 23 cm apart. They used a seeding rate of 450 seeds per square metre with fertilizer at soil test recommended rates and weed control as necessary at label rates.

Results were generally consistent across all of the sites: the highest net returns came from using the full package of dual fungicide and insecticide seed treatment, without the fall-applied



Features



foliar fungicide. The fall application increased yield and plant stand stability, but the added cost of buying and applying the fungicide lowered overall returns, based on wheat prices of \$5.25 per bushel.

At sites where stripe rust had been confirmed in the fall, yield gains were more apparent where the fungicide was applied. "But," Beres said, "net revenues compared to not applying any foliar fungicide were still cost prohibitive."

The study says, "Crop responses to seed treatments can extend beyond mitigation of pathogens or insect pests." For example, previous work has found that prothioconazole can improve plant frost tolerance and the active ingredient tebuconazole can cause physiological changes in plants that improve root development.

In further work, these researchers want to study the study the benefits of spring foliar fungicide application, as opposed to fall application.

THE SECOND PART

While Part 1 established the that the dual fungicide/insecticide combination provided the greatest net returns, in Part 2, Beres says, researchers added seed treatments "into a more complex agronomic system, a system that involves levels of seed vigour, where we're using three levels of seed size as a proxy for vigour, and integrating that with two levels of the seeding rate, a high and low."

These variables were used to imitate different agronomic system scenarios, "from weak through to very strong. What we know is, if you're in a compromised situation of any kind, which we created by using a poor seed lot (thin, light seed) and a lower seeding rate, the dual fungicide/insecticide created a very positive impact with respect to a mitigation strategy."

Researchers concluded that the combination fungicide/insecticide package could improve plant establishment and increase yield in a thinner winter wheat stand. "The surprise to us," Beres says, "was in those low plant stands is how a seed treatment actually improves plant stands in spring and protected yield even in the absence of a pathogen or insect."

Farmers with stronger agronomic systems may find that the net returns from the fungicide/ insecticide combination aren't as obvious. However, while they may not increase benefits in a particular year, they may help promote more stable plant stands and crop yields over time.

"From a very strong agronomic system, what we then would conclude is that, while it's not as apparent, it definitely is something that would provide the grower with the insurance of protecting yield and stabilizing yield year after year," Beres says.

Overall, researchers found the highest net returns came from using low seeding rates with the dual seed treatment. However, this left room for more weeds, and required an additional herbicide application, lowering overall profits. Thinner stands also led to more tillering, causing uniformity issues and the crop to mature later, adding to harvest

CONCLUSION

"Before we initiated these studies," Beres says, there was anecdotal evidence that with a coating on the seed, perhaps water wouldn't imbibe as readily and germination and emergence would subsequently be delayed. This would be especially problematic for winter wheat, "when you want something to pop out fast, and have lots of vigour and actively grow for that short period before fall closes in."

"Or," Beres says, "there was the flip side: actually [seed treatment] might create a response and get things moving earlier." That was what happened.

With seed treatments, Beres says, "You do actually change processes within the plant. Various active ingredients in seed treatment will affect certain metabolic pathways in that plant to make it more vigorous. It's a very practical and useful management tool for protecting yield."

These two studies are the type of work that provides hands-on results for growers. This work was spearheaded by Ducks Unlimited Canada and other industry partners. "There are a lot of really progressive farmers out there, and as an agronomist, I'm fortunate to work with many of them. Many of them are leading edge, early adopters that have very strong agronomic systems."

Leeann Minoque is the editor of Grainews.

Read the research

In the world of scientific research, many published papers are hard for non-scientists to track down, and you often have to pay to read them.

However, the work published by Agriculture and Agri-Food Canada researcher Dr. Brian Beres is available to the public with no charge.

The easiest way to find the two studies referenced in this story, and the rest of Beres' research, is to take a look at his (long) list of research publications. If you type "Brian Beres research" into Google (don't add the quotation marks), you'll be led to his AAFC directory page. You'll find Beres' research interests, current projects, and the list of links to all of his recent publications. You can follow these links through to the full texts of all of his research papers.

This is a handy way to find the complete information for any work published by federal researchers.

Leeann Minogue

regional research?

Get the latest news

This fall, Agriculture and Agri-Food Canada started sending out monthly emails rounding up the latest "Science News From the Prairies." The September issue featured a piece about the rotational effects of pulse crop residues. In October, a link led to an article about the potential for leaf spot severity to increase in the Prairies with changing climate conditions.

Get this research roundup in your email inbox for free. Just send an email to aafc.prdn-nrdp.aac@canada.ca and they will add you to the list.

Leeann Minogue

Move Over InVigor Canola

BrettYoung's 6074 RR Canola Challenges InVigor® Yields.

Over the past two years, 6074 RR has been the highestvielding Genuity® Roundup Ready® (RR) canola in the Canola Performance Trials (CPTs), and has the agronomic traits to make it one of the best performing hybrids no matter whether it has Liberty Link® or Genuity Roundup Ready traits.

"6074 RR has very high yield potential. Three years ago, our breeders actually visually saw this variety in our research trials and they just pointed it out in every trial. I said, 'That's the next big one.' So it's been exciting and fulfilling to have that variety come to the marketplace," says Kevin McCallum, General Manager of DL Seeds at Morden, Manitoba.

DL Seeds was formed in 2008 as a joint plant-breeding venture between DSV and NPZ Lembke, two leading European canola-breeding companies with a long history of plant breeding. DL Seeds is BrettYoung's canola breeding partner and the source of 6074 RR.

6074 RR is proving itself as the outstanding choice in the Genuity Roundup Ready segment with yields that challenge InVigor's. It is one of the few hybrids to combine unsurpassed yield with wide adaptation, and Blackleg resistance (R).

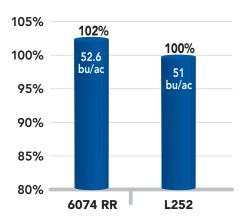
Genetic Tolerance to Sclerotinia

"6074 RR is a hybrid that delivers other unique disease resistance traits, like the improved tolerance (IT) to Sclerotinia rating it received with permanent registration this spring. So great harvestability and disease traits in a package that yields better than any Genuity Roundup Ready variety we've seen before," says Rene Mabon, Agronomic and Regulatory Services Manager with BrettYoung at Winnipeg, Manitoba.



6074 RR vs. InVigor plot being harvested at Meota, SK.

6074 RR vs InVigor Yields



Source: 15 farmer or retailer-run trials in 2016 in Manitoba and Saskatchewan

In addition to leading performance in the CPTs, 6074 RR also leads the way in BrettYoung Comparison Trials (BCTs) for canola. These sites represent BrettYoung's commitment to testing and bringing unbiased agronomic and performance data to the market. The sites are field-scale, farmermanaged, replicated field trials. All sites are managed by an independent company in co-operation with the farmer.

"We have received many results from our 2016 BCT trials. 6074 RR is showing results consistent with what we saw last year. Consistent top end yields. Last year we had 19 sites with 6074 RR and we have 20 in place this year," says Mabon.

The InVigor Challenge Trials

In 2016, BrettYoung also launched the InVigor Challenge Trials. Fifteen head-to-head, farmer or dealer-run trials across western Canada that featured 6074 RR up against the best InVigor hybrids.

"The InVigor genetics are very well respected in the marketplace, but we feel we have the genetics that are just as good or better in our varieties. We felt 6074 RR would challenge the InVigor hybrid yields, and in the head-to-head plots we expected that we would win, not every single plot, but we would win our share," says McCallum.

Check the BrettYoung website in November for the complete Challenge results—they'll all be there, win, lose or draw. brettyoung.ca/6074

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Tattered leaf tips trouble Saskatchewan farmer

BY RAEANNE DENOMIE

was early June of 2015 when I was called out to John's farm, north of Wadena, Sask. While scouting his wheat field prior to applying in-crop herbicide, John noticed what he thought to be "early-stage disease." He asked me for advice on herbicide and fungicide application timing. I suggested I have a look at the field before offering recommendations.

From the road, the wheat field looked healthy and undamaged. Upon closer inspection, I found the leaves had a modest amount of leaf disease. In addition, the leaf tips were tattered, and in some instances, missing. The leaves were also bruised, and all symptoms were worse on hilltops than low-lying areas.

What had caused this damage? We had to eliminate many factors before getting to the root of the problem. For example, could a nutrient imbalance or inaccurate fertilizer application be causing the damage to the leaves? Could insects have caused these symptoms? Could a fungal infection have caused the leaf damage? Or had mechanical damage caused the bruising and tearing of leaves? Each of these factors had to be addressed before I could offer John a diagnosis.

It was easy enough to check the field for insects capable of causing this type of damage. After a careful search, we didn't find any pests that would cause these symptoms. Although leaf disease was present, the infection was not large enough to cause the leaf tips to fall off. Thus, in this case, fungal infec-



Raeanne Denomie is a sales agronomist for Richardson Pioneer Ltd., at Wadena, Sask.

tion likely occurred after the leaf tissue was damaged.

On the whole, the wheat crop was even and green, leading me to believe there was no nutrient imbalance. Also, we could rule out fertilizer burn as John had not spread or dribble banded any fertilizer on this field. Herbicide damage was not the cause, either, as John had not yet applied his in-crop herbicide, and since the damage occurred throughout the field, drift was also not the issue. Since seeding, no heavy vehicles had entered the field, so the tattered or missing leaf tips were not caused by mechanical damage.

However, I knew almost from the first glance at the plants' leaves what had caused the damage.

"I've seen this before, but we have to eliminate every other possibility first," I said. "It's environmental damage. Can you guess from what?"

If you think you know what's causing the leaf damage in John's wheat field, send your diagnosis to Grainews, Box 9800, Winnipeg, Man., R3C 3K7; email leeann@ fbcpublishing.com or fax 204-





The leaves had a modest amount of leaf disease and were bruised. The tips were tattered; some were missing. All symptoms were worse on hilltops than low-lying areas.

944-95416 c/o Crop Advisor's Casebook. The best suggestions will be pooled and one winner will be drawn for a chance to win a Grainews cap and a one-year subscription to the magazine. The answer, along with reasoning that solved the mystery, will appear in the next Crop Advisor's Solution File.

By Raeanne Denomie is a sales agronomist for Richardson Pioneer Ltd., at Wadena, Sask.

CASEBOOK WINNER

Paul Slezuk sent us the winning entry for this issue of Casebook. Paul has lived in the Radway, Alta., area most of his life, and has a mixed farm operation. Paul, we're renewing your Grainews subscription for a year and sending you a Grainews cap. Thanks for reading and thanks for entering!

Be like Paul. Tell me what you think happened to John's wheat crop, and you, too could be a winner. Send me an email at leeann@fbcpublishing.com.

Leeann Minoque

CROP ADVISOR'S SOLUTION

Don't get burned by pushing herbicide application

BY JULIE MITCHELL

here are many reasons herbicide applications get set back, rain being just one factor producers have to deal with. Application windows are tight, and it's easy to push herbicide timing too far. Mike, who farms east of Didsbury, Alta., got caught in the timing trap, and learned the hard way that spraying herbicide on glyphosate-tolerant canola outside recommended crop stages reduces pods and yield.

I'd been keeping an eye on Mike's crops during the 2015 growing season. In late June, I arrived at Mike's farm to assess crop staging and herbicide timing. One of his canola fields was at the end of its spray window, with some plants beyond the six-leaf stage. The second canola field I looked at, which was located about a kilometre from the first field, had been seeded a

week after the first one.
I told Mike if he sprayed this second field within the next day or two, his canola plants would be within the label application window; however, it was already getting late to apply glyphosate to the first field. Both fields had heavy second flushes of wild oats and volunteer cereals because of the moisture this area had received after the first herbicide application at the two-leaf stage. I noticed sow thistle and cleavers were also gaining ground.

"I'm concerned about dockage in my sample at harvest and yield loss," Mike said.

Mike made the decision to spray both fields with the second pass of glyphosate, one field was within the approved crop stage (up to and including the six-leaf stage in canola) and the other outside that window.

As a result, when I arrived at Mike's are less able to adjust, and yield loss fields in September to assess swath timing, many of the canola plant pods were stunted or aborted in the field in which crop staging and herbicide timing had been pushed outside the recommended application window. This field was showing clear signs of herbicide application stress.

Meanwhile, the second field had an excellent stand of canola, with plants that had well-podded main stems and branches.

Herbicide application pushed after the six-leaf, and into the early bud stage, puts stress on the canola crop at a time that results in aborted flowers and pods. Under more favourable conditions, plants can compensate by producing more flowers; however, when combined with other stresses, such as heat, lack of moisture, nutrient deficiency or insect pressure, they

It's important that producers assess whether the benefits of late herbicide application outweigh the risks. In Mike's case, it didn't, as weed competition had already caused crop losses, and the herbicide injured canola plant buds and flowers. It's possible temperature stress and the lygus bug pressure that existed at lower than economic threshold levels had a compounding effect as well.

However, Mike's yield loss was not as great as we expected. The field with aborted pods produced two to three bushels per acre less than the neighbouring field. Next year, Mike will keep herbicide timing within approved crop stages or, while understanding the risks, assess if pushing herbicide application will result in yield gains.

Julie Mitchell works for Richardson

FARM MANAGEMENT



Calculating land rental costs

Renting might be the right choice for your farm. But how much should you pay?



BY ANGELA LOVELL

alculating how much you can afford to pay for rented land takes a certain amount of work, and there may even be some cost involved if you bring in advisors to help, but it may help mitigate some of your risk and prevent you from biting off more than you can chew.

There are various ways to calculate land rental costs, says Roy Arnott, farm management specialist with Manitoba Agriculture. "There are a number of methods that producers and landowners can use to calculate rates," he says. "There is the usual cash rental calculations, to crop shares, to some flexible methods that try to share for the risk and reward of land rental between a producer and the land owner."

In the past, fair market land rental has often been slated somewhere in the range of 18 to 22 per cent of gross revenue (yield per acres times price per bushel), but with some land val-

ues having risen in the region of 14 to 22 per cent across Canada in the last few years, is this still a reasonable number to base rental rates on?

"I think 18 to 22 per cent is probably still the range of average land rental rates across Western Canada," says Arnott. "For the landowner the check and balance is going to be to look at land value multiplied by an investment rate of return. You have to be careful with the numbers because they can push around, but that rate of return is somewhere between two and two-and-a-quarter per cent of the land value plus land taxes. That should be a pretty good approximation of land rental as well. That's not necessarily what the coffee shop says land is worth but is really its productive value."

WORTH GETTING CREATIVE

Cash rental agreements are still the most common across most of Western Canada, but there are also some effective, non-traditional ways of approaching land rental that are more flexible and offer additional advantages for both parties, especially if they are both prepared to share in the rewards, and also the risk.

"One effective arrangement I have seen in recent years is where you've got a base rental rate that is determined, even if it's determined arbitrarily, and a maximum rate which, again could be determined through calculation or arbitrarily and then the land rental rate is applied based on what happens during the year," says Arnott. "If it's a really good year, the producer is going to pay more rent because he can share more with the landowner and everyone benefits. If it's a particularly tough year, the producer might only have to pay the base rate. The landowner is going to get less rent but the producer gets the benefit of some protection. When you have that agreement going in both directions for both parties, they are attractive and you tend to end up with very satisfied people on both sides of the equation."

USE LONG-TERM AVERAGES

Any calculations should definitely use long-term averages, not just a couple of years' production records. "Well I think when you take a longer-term viewpoint on gross revenues, on productive values, you tend to find a little bit more stability in your offering and your expectations," says Arnott.

Making a short-term rental agreement based on your last one or two years of gross revenue, where a producer had an above production year, and above-average prices, might put him or her in a situation of offering and paying too much land rent than might be warranted with what the long-term production value has been or could be.

"That can flip around too," says Arnott. "Just because one good year comes out of the woodwork doesn't necessarily mean that land rent has to immediately increase. So both sides need to take into account, what is the longer-term aver-

age gross revenue, average yield, average prices, and what is the expected price trend of those commodities moving forward. In a rising market and rising land values, it's very easy to keep cranking up land rentals or offering more, or expecting more, but when you've got flat or declining markets it gets very hard to figure out an appropriate way of stabilizing or even decreasing some of those values to be truly fair and reasonable."

Long-term averages will also help producers build in some protection against factors beyond their control such as currency fluctuations, trade disruptions or market volatility. Arnott suggests taking a step back to look at what is going on in the bigger picture to get a better perspective from both the landowner and renter point of view.

"If you look at gross revenue times five to equal land value, that is a fairly cheap land value number, whereas if you look at gross revenue times 10,

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that's probably expensive land or where insanity is set in on land values," says Arnott. "Six to eight times the gross revenue is likely a more realistic figure. If you take a short-term viewpoint of gross revenue, and you apply those kind of parameters, you can crank out some very interesting land values and they can be, at times, very different if you apply a longer-term metric to gross revenue, or even projected gross revenue to give you a sense of where land values should be"

These numbers, says Arnott, come into play when you're doing that landowner check and balance related back to land rents. "If you take this back full circle to where we started talking about 18 to 22 per cent of gross revenue, that's probably going to be somewhere in the range of six to eight times gross revenue as a land

value as well. That calculation is going to give you land rents that are based on the investment rate of return, so it's sort of a double check producers can do."

TRANSPARENCY A PROBLEM

Calculating land rental rates that makes sense for the producer and the landowner definitely begins with assessing production costs yield potential and should take into consideration the marketing strategy the producer wants to employ. For example does he or she have sufficient grain storage capability to hang on for better prices in the market? And what is the associated cost or risk of doing that? These things all factor into the bottom line and help make sense — or not — of the land rental figure. That said, it's not always easy to get a handle on what land in a specific area

is really renting for. It's often information that both landowners and renters want to keep close to their chest.

Lyndon Lisitza, who owns Renterra, an online service that matches up producers seeking land to rent and landowners looking for renters, says he sees more and more clients signing up for his service because it helps to encourage transparency in pricing, which they can't get by simply talking to their neighbours or going to live auctions.

"Landowners if they are disconnected from the land, they are not always sure what the land rental values are, and there are so many variables that go in to determining what the value is — like commodity prices, or how much competition there is in a particular area," says Lisitza. "They'll put it up on my site and we can either do an electronic tender or they can hold an online auction. The

online auctions are probably the most efficient way of determining and discovering what the value of something is. I'm finding when I do set up an auction, I might have anywhere from 50 to 60 people in a 50 kilometre radius that are looking to rent land. Assuming it's decent land, there'll be good competition and you very quickly determine what the value of that land is."

For the producer it's also an efficient way to have all the information in one place that he or she needs about a parcel of land, such as cultivated acres, soil class, assessment value, and often pictures and mapping of where the land is. "They can download all the information so that they can at least determine if they're interested," says Lisitza. "Quite often then they will take a drive by and look at the land. It definitely gives everyone an equal opportunity to figure out if there's land available

and an equal chance in the bidding process."

MAINTAIN PERSPECTIVE

No one wants to end up in an untenable position when it comes to renting land, but if people are too conservative and cautious they can end up on the underside of the land rental value, says Arnott. "If people are too aggressive, and too willing to gamble, they can be on the overside of the value very quickly and put things at risk. Both the conservative and the gambler can create challenges for the business on both sides. So it's very important to keep perspective and balance with your thinking and planning."

Find out more about Renterra at www.renterra.ca.

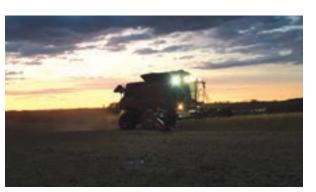
Angela Lovell is a freelance writer, editor and communications specialist living and working in Manitoba. Find her online at www.angelalovell.ca.





Jalene @jknel17

@westernproducer @Bayer4CropsCA @farmsofcanada @AgMoreThanEver #harvest16 #selltheswather #mauwsfarmsItd





Dwight Poirier

@DwightPoirier10

#InVigor #selltheswather straight cutting canola sure takes the pressure off harvest





GrainGal @FarmingInLA

Happy to be starting the canola! #selltheswather #harvest16





Scott Gabert @sgabert31

Gorgeous day to harvest some

@Bayer4CropsCA L135C. #selltheswather
#solditlongtimeago #whatsaswatter





Darryl Reimer
@framertofarmer

#selltheswather been straight combining canola for 20 years on our farm. Sold the swather 3 years ago and went to 100% straight.





Jeff Stel

@Bayer4CropsCA 4-5 bu better on straight cut vs swath. Time to **#selltheswather**



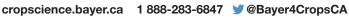
Congratulations to Scott Gabert

Winner of the #SellTheSwather Contest!

This photo contest was launched to celebrate InVigor® Pod Shatter Reduction hybrids, a new technology from Bayer that provides growers with the opportunity to straight cut their canola. Scott's winning tweet (shown above) was selected from a pool of entries, featuring everything from straight cutting canola images to a video of a swather demolition. Check out #SellTheSwather on Twitter to see all entries.

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ASK THE EXPERT



Four steps to a fair land rental agreement

Farmland rental troubles? Take a good look at your relationship with your landowner

BY ANGELA LOVELL

s land values increase, so do land rental rates, but commodity prices don't always follow the same trajectory, although input costs might. So how do you come to an arrangement to rent land that is fair and profitable for both parties, because that's the number one consideration if both want a stable, long-term deal.

"Communication and trust is a huge deal in land rental," says Roy Arnott, farm management specialist with Manitoba Agriculture. "Ultimately what producers care about is care and control of their land base, whether they own it or rent it. Landowners care about getting a reasonable rate of return on their investment and having their land cared for. If renters have honest, open discussions with their landlord, and take care of the land, it gives the landowner a lot of comfort. Not sharing information and indications of bad management practices can make a landowner verv nervous.

On the other hand, if a landowner is not communicating with a renter in terms of what he or she expects and why they want to make a change, the renter is going to start looking elsewhere for land and be gone."

1. SOMETIMES YOU HAVE TO WALK AWAY

There may be situations where you just have to walk away, says Lance Stockbrugger, a farmer and chartered accountant from Engelfeld, Sask. "It's not worth me farming more land for the sake of farming more land — it needs to be profitable," he says. "If I hear land is available and

Resources to Help with Negotiating Rental Agreements

Manitoba Agriculture has developed a list of "Land Rental Considerations." It includes a list of things for both landlords and tenants to consider. Find it here: https://www.gov.mb.ca/agriculture/business-and-economics/business-management/land-rental-considerations-landlords-tenants.html.

Farm Credit Canada has also created resources for renters and tenants. Look for these on FCC's website (fcc-fac.ca). In the FCC search box, search for "Renting Farmland: What You Need to Know."

Angela Lovell

I talk to the landowner and realise we are just not going to be able to reach an agreement I would walk away. It needs to be fair. I don't want to cheat the landowner but I don't want to be cheated myself."

Sometimes it's a case of wanting to hang on to land that you're already renting but the landowner has maybe listened to a little too much coffee shop gossip about what neighbours are getting for land rent. In that situation it's important to be open with the financial numbers, says Stockbrugger. "I'll go through and do a cost basis analysis and show them this is what I am potentially going to be looking at, and this is the

potential return, and explain to them that we both want to make money at this endeavour," he says. "If you want me to farm your land, and want me to look after it and treat it right then we need to be fair to both parties."

2. LAY OUR YOUR LONG-TERM PLAN

Making sure that the landowner understands your full three- or five-year plan for your farm — including the rented land — and that there are going to be good years and bad years will help you to reach a deal that averages out the risk for both. "Sometimes it just takes a conversation to say we there are going to be years when I do really well and years when I don't do very well, and I am going to pay you regardless of good or bad and I expect that if I treat you good, you treat me good," says Stockbrugger.

But it's important not to only emphasize the negative. "Don't just harp on the bad years when it's tough. When you have good years celebrate that with your landowners and maybe sometimes give them a bonus. They need to understand there are years you are going to be making money and there are years when you are not making much, and don't be embarrassed about making money because we are in

a business and we need to make money out of it. Having those discussions is so important."

3. BE OPEN WITH ABSENTEE LANDOWNERS

It's much easier to have these discussions with landowners who understand farming, like the retired farmers who Stockbrugger rents most of his land from. They still live on their farms and see how the crops are looking, the flooded acres, or drought stricken areas. They understand what that means to the production and profitability of the farm because

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they've all been through it. It's more challenging to deal with absentee landowners who may not have much knowledge of farming.

But some absentee landowners may have inherited land from relations and have little or no connection to farming on a daily basis. Developing a relationship with them takes more work and education to help them understand the daily realities faced by the people farming their land. Stockbrugger keeps his absentee landlords informed about how the season is progressing, sending pictures of things like seeding and harvesting. His advice is to be open with absentee landlords, and let them know some of the good things that are happening on the farm, not just the bad.

Most rental deals are still straightforward cash transactions, although some farmers do use other methods like crop shares or a percentage of gross profit on the crop, but Stockbrugger advises farmers not to over complicate arrangements with landowners who don't fully understand farming or don't have ties to it on a daily basis. "If all a sudden the cheque is half the amount they have been getting in previous years, you will have to do a lot of explaining to do," he says.

SHOW SOME APPRECIATION

Showing some appreciation for the landowner never hurts either. Stockbrugger hosted a post harvest barbecue last year and invited his landowners and everyone who had helped with the harvest, and says they were talking about it for weeks. "It's often the little things that help the relationship," he says.

For landowners, who also face cost increases such as higher taxes as land values go up, they expect a fair deal just like the renter does, but it's often the case that they can make a bigger rate of return on renting their farmland than selling it and investing the money. "In a lot of cases we are paying more in rent than they would get in a GIC in a bank account," says Stockbrugger. "Sometimes we need to remind them of what kind of return they're getting on their land and whether that's fair for the risk they're taking. It's important to feel that neither party is being taken advantage of."

The allure of more rental land can be seductive to some farmers, but it's important to keep a clear head about what it means for your farm business, and that may mean bringing in some professional advice from accountants or bankers, or government extension advisors like Arnott. "Talk to your banker in terms of how paying an amount for land rent will affect profitability, and how that affects your ability to borrow and secure capital for your business," says Arnott. "Your banker can be a useful resource as you're going through thoughts and discussions to ensure you're not going to wander too far out of your normal comfort zone to find and secure land."

Angela Lovell is a freelance writer, editor and communications specialist living and working in Manitoba. Find her online at www.angelalovell.ca.

FARM MANAGEMENT



What's affecting land rental rates

The farmland rental market can respond to a lot of different market factors

BY ANGELA LOVELL

hen the value of land goes up it tends to affect land rental prices too, but it's not the only factor that has seen land rents increase over the past few years — in some areas quite dramatically. Productivity of the land is also hugely important, as is the amount of competition for land in a particular area.

"When commodity prices were high we saw a lot of lower quality or marginal land put into production. Because that land wasn't very productive, it was renting out in some parts of Saskatchewan for around \$35 to \$40 an acre." says Lyndon Lisitza, owner of Renterra, an online service which matches up renters and landowners. "When you saw commodity prices drop off that was the first land to disappear from the radar as far as rental because it was land that probably shouldn't have been put into production in the first place, and nobody was interested in it, or if they were it was at a reduced price."



Quality of the land is even more important

Today, with higher land values, and lower commodity prices, the quality of the land is even more important to producers wanting to rent. "High quality land is still renting at a very good price," says Lisitza. "As well, the equipment is getting larger and larger. You don't have guys wanting to go around sloughs and they want corner to corner, and that also has an impact on what they are willing to pay."

HOW HUNGRY IS THE COMPETITION?

Competition from larger farmers hungry for land is definitely having more impact than it used to, and they're willing to go further to get the land they want. "There are some areas of Saskatchewan where I have two or three very large producers, farming 15,000 to 20,000 acres who are overlapping in their region, and land rents are definitely higher in those areas," says Lisitza. "If a landowner has a decent bundle of land, so say 13,000 acres in a relatively small geographical area, that will have a big impact on rental value because producers are looking to get large packages of land and they're willing to travel and pay for it. I've had producers from Alberta coming into Saskatchewan to farm if they can find enough acres here in the province."

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Generally large producers signed up for Lisitza's service are looking for at least 10 quarters to rent, but that sometimes offers some opportunities for smaller producers who just want a quarter or two. "Smaller producers aren't usually looking to suddenly double their acres, but are often just looking for a quarter or two because that's a nice increase for them. They can manage it feasibly and grow gradually," says Lisitza. "I know some landlords who are hesitant if a guy is farming 2,000 acres to come along and rent them another 2,000 because it's a lot of risk. The entire structure of their operation has to change to accommodate. The progression of farming over the last 30 years has been to start with a few hundred acres and built it up. The scale has changed but that mindset probably still applies."

RATES STARTING TO LEVEL OUT

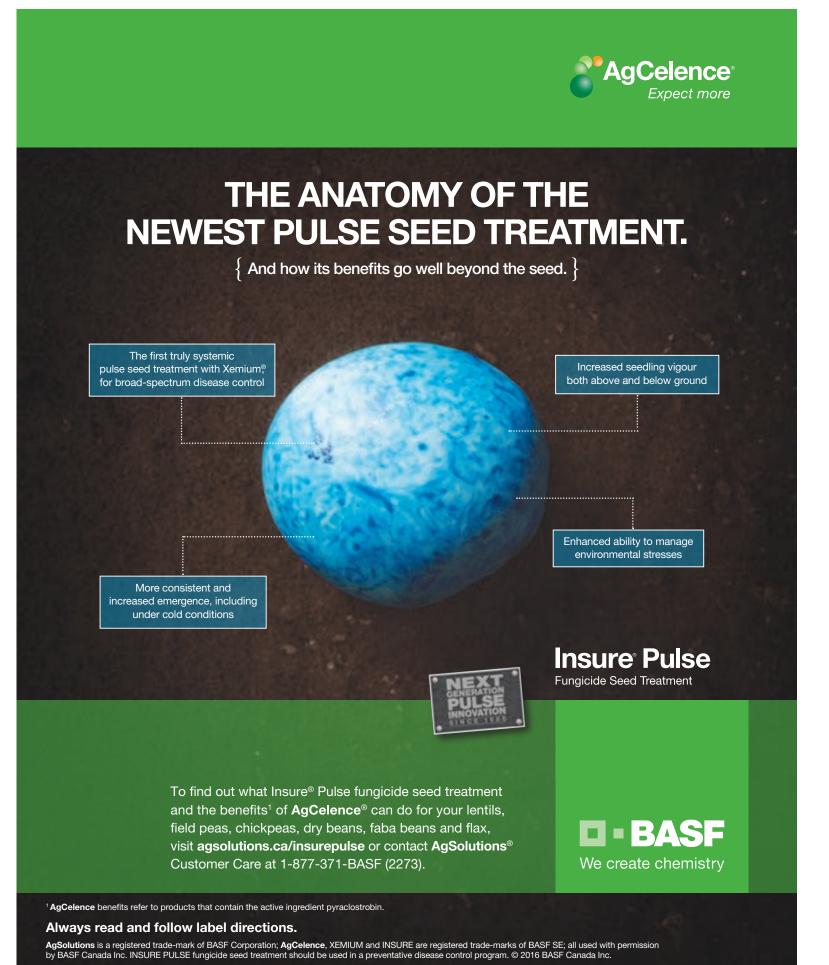
Many people in the farm industry feel that land rental rates are starting to level out. "I think that factors in agriculture such as lower commodity prices and more stable land value is going to slow or stop the increase in land rental rates," says Roy Arnott, farm management specialist with Manitoba Agriculture.

Production challenges in some areas are also likely going to put pressure on rental values to stabilize or maybe even reduce. "I don't think we are going to see much of an increase in land rental rates any more given the current economic situation we are in right now in Western Canada," says Lance Stockbrugger, Saskatchewan farmer and chartered accountant. "I think farmers are going to be seriously looking at their cash flow and saying I can't pay any more, or maybe getting into the situation where they are paying too much already given the prices that we are dealing with. Twenty per cent of the crop in Saskatchewan hasn't been harvested [at time of writing in

mid-October]. That's going to be a bit of a reality check for people."

As producers add some new and high value, specialty crops to their rotations, that's also having an impact on land rents depending on the ability of the land to grow them. Lentils are a great example. "If you live in an area where you're going to be able to grow a good crop of lentils, and if there's competition for that land, you are going to see an impact because your potential profitability is higher and the land rental prices usually reflect that," says Lisitza.

Angela Lovell is a freelance writer, editor and communications specialist living and working in Manitoba. Find her online at www.angelalovell.ca.



CROP PRODUCTION



Lentils: the crop year in review

2016 brought a wet season and a damp harvest. Lentil crops didn't like that

BY LISA GUENTHER

entil growers had a hard time pulling off a good crop in 2016. A wet growing season and damp harvest plagued many farmers.

"Without a doubt there were some good quality lentils produced in 2016, but the percentage of high quality lentils produced would be much lower than what we typically see in Western Canada," says Trevor Glas, marketing development specialist with Bayer CropScience.

High disease pressure took its toll on lentil quality as well. "White and grey mould were the major culprits this year," says Glas.

Mother Nature holds all the cards when it comes to weather. But farmers have a few tricks up their sleeves to help them manage disease.

KNOW YOUR DISEASES

Glas says there are four major lentil diseases to watch for; ascochyta blight, anthracnose, sclerotinia (white mould), and botrytis (grey mould).

Ascochyta blight can be seed- or residue-borne. Lesions are tan or grey with dark borders, and may



have little black spots (fruiting bodies) in the middle, according to the Saskatchewan Pulse Growers.

Lentils infected with anthracnose will have grey to cream coloured lesions on stems and leaves. Lower leaflets will yellow or brown before dropping, and lower stems will canker, killing the plant.

Botrytis (grey mould) shows up as fuzzy grey growth. On young plants, it appears near the soil surface, according to Alberta Pulse Growers. Botrytis grows on pods, flowers, or lower stems on older plants, Alberta Pulse notes.

Lentils with white mould on stems, leaves, pods, and flowers are infected with sclerotinia (white mould). Alberta Pulse notes that the first signs are "light-brown, water-soaked discolourations" on stems, leaves, or pods. A cottony thread will show up around the collar if humidity and temperatures stay high, Alberta Pulse says.

Both botrytis and sclerotinia

are late-season diseases. Farmers dealing with grey mould should use dust masks during harvest, as spores can cause breathing problems, according to Sask Pulse.

FORECASTING DISEASE

"It's all about preventative disease management. In lentils, you cannot wait for disease to show up," says Glas.

Predicting disease presence is difficult, says Glas. He suggests farmers take a look at their crop when deciding whether to spray. A crop with good or extremely high yield potential is worth protecting,

Cropping history also plays a role. "Looking at your rotation or your neighbour's crop rotation can help predict the presence of diseases like sclerotinia, for example," says Glas. Sclerotinia also hits canola, peas, and sunflowers.

"So if canola's in your rotation, there's a very good chanceespecially if you're in a tight rotation — that sclerotinia could be a problem in your lentils," says Glas. Sask Pulse also recommends a four-year crop rotation to manage anthracnose. And ascochyta blight overwinters on lentil stubble, so Sask Pulse

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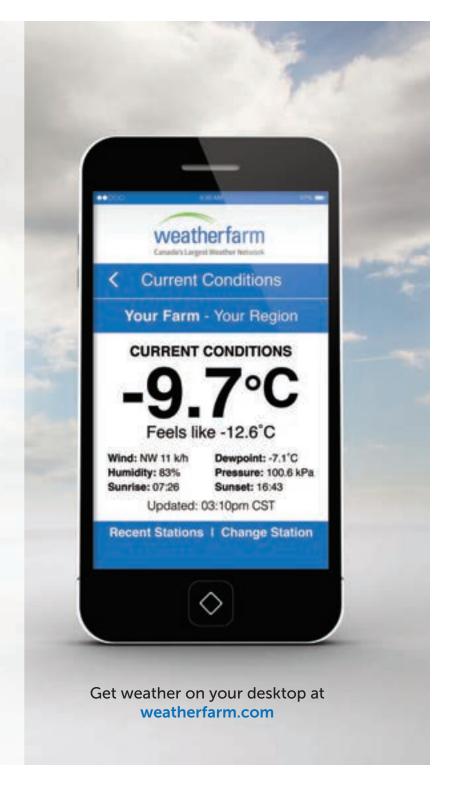
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Features



advises farmers to avoid growing lentils on lentil stubble.

Sask Pulse notes that while botrytis inoculum lurks in the soil of every field, it generally only rears its mouldy head when heavy stands lodge during wet, cool summers.

Farmers also need to consider genetic resistance within the variety, stand density, moisture conditions in the soil and crop canopy, and rain forecast, says Glas.

APPLICATION TIPS

"A single application in lentils is extremely common in the majority of the lentil-growing area," says Glas. In higher input lentil growing areas, it's common to apply fungicides twice, he adds.

Usually agronomists recommend applying fungicide at flowering, for the first pass. "But this year, the... vegetative growth was so dense in the lentils that the rows were closing prior to flowering."

That's why it's important to look at row closure as well when timing the first pass, Glas says. Because of the moisture and growing conditions in June, many lentil growers applied fungicide earlier than if they'd looked at flowering alone.

Farmers trying to prevent lateseason diseases such as sclerotinia or botrytis will spray again 10 to 14 days later, Glas says.

Sclerotinia and botrytis are challenging diseases to manage, partly because farmers need to apply fungicides before the disease shows up.

"If you wait for the disease to show up, it's too late and the damage is going to be done. You'll get some control but it's not going to be satisfactory," says Glas. Farmers who applied fungicide before row closure, and did a second pass later, saw better yields and quality, says Glas.

But getting the second pass right is tricky with botrytis and sclerotinia. "When you make that second application you're really trying to drive the fungicide down into the canopy," says Glas. That can be difficult, he says, especially in a year like 2016 when the canopies are very dense.

To improve coverage, Glas suggests making sure boom height is set to 18 to 20 inches above the target. Higher water volumes also help. Glas says 10 gallons of water is the minimum with a ground application. But growers will apply up to 15 gallons of water to push more spray solution down into the canopy. Slowing down also helps.

Farmers should also double check the labels for rates, and to make sure the product is registered

for the diseases they're planning to hit. Glas says Bayer's product, Delaro, does provide protection for all the major lentil diseases, but not all fungicides do.

Environmental conditions are important, too. Avoid windy days, Glas says. And he doesn't recommend spraying in extreme heat — 30 C or higher. Glas adds that the closer the mercury gets to 30 C, the more water is needed.

For more information on lentil disease, visit saskpulse.com or pulse. ab.ca.

Lisa Guenther is field editor for Grainews based at Livelong, Sask. Contact her at Lisa.Guenther@fbcpublishing.com or on Twitter @LtoG.



CROP PROTECTION



New year, new seed treatment rules

Rules won't affect on-farm treatment, unless the products you use are "restricted"

BY DILIA NARDUZZI

hen new rules for commercial and mobile seed treatment operations come into effect on January 1, 2017, farmers won't notice much change. The standards won't apply to farmers treating their own seed on-farm, and CropLife Canada, the association that represents the plant science industry, believes having consistent standards will be good for the industry.

The Accredited Seed Treatment Operation Standards are industry-led and regulated. They include 76 protocols — items like ensuring buildings and storage facilities are at least 30 metres from environmentally sensitive areas and requiring employees to have proper safety training.

Russell Hurst, CropLife Canada's vice president of stewardship and sustainability, says these new standards are a good thing both for the industry and for individual farmers. Consistent handling and application procedures, says Hurst, will help ensure farmers buying seed are getting a more uniform product. In the long term, better

seed treatment application standards will help farmers approach changing and emerging pest pressures more adeptly. What's more, the health, safety, and environmental measures in place should help the long-term stewardship of the land too, says Hurst.

While these new rules do not apply to farmers who are treating their seed for individual use on their own farms, farmers may see their access to some products limited. Monica Klaas, general manager of Alberta Seed Processors, says there will be a list of products that "manufacturing companies and/or Health Canada have deemed need to have restricted access, so there's some component to that product that is a threat to either the applicator, the environment, or something else. Only facilities that have certification under the new seed treatment standards have will have access to those products." The list of restricted products will be available through CropLife in January 2017.

Will the costs of implementing and abiding by the new system increase seed prices? It's hard to answer the question definitively, says Hurst, for a few reasons. Some of the commer-

cial seed treaters were "already exceeding operational expectations," so they didn't have to make many changes to align with the new standards. Others had to make changes and possibly capital expenditures, says Hurst. Costs to individual businesses (if any) could vary widely.

Each seed treatment location will be required to do an audit every two years. Audits will cost \$500, which Hurst points out isn't that much for a commercial business

Hurst's "gut instinct" is that "there won't be a significant increase to seed purchasers" but with a wide spectrum of businesses involved, Hurst can't say for sure one way or the other.

Klaas concurs with Hurst in that she says she "doesn't necessarily think that the new standards will directly drive pricing up." Operators who made investments to meet standards will be able to spread costs out over many customers.

You can review the entire 56-page seed treatment document online at: http://awsa.ca/wp-content/uploads/2015/03/Seed-code-Final-2016.pdf.

Dilia Narduzzi is a freelance writer in Dundas, Ont.

The latest on-farm application tips

If you're applying your own seed on your own farm, here four tips from Justin Bouvier, seed and seed care specialist with Syngenta.

- 1. Set your grain flow. This way you'll know how much grain is going through your treater and then match the treatment with the flow of the grain. So "run your seed treater for a minute and timing it, then weighing it out and then if you know you have 20 bushels per minute on that auger, you'll run the seed treatment to match that flow." Calibration is crucial with on-farm treatment, says Bouvier.
- **2. Initial application is very important.** "A good initial application makes the rest of the process much easier," whether you're using a \$1,500 dollar applicator or a \$130,000 one. When and how the product hits the seed is important. You can also add water to Syngenta products up to a one-to-one ratio, for better coverage of the seed (this is helpful for grain that is particularly dry or dusty, like barley).
- 3. Seed-to-seed contact distributes that product among the seeds. Where the seeds get rubbed together, chemical spreads out. If you are using a lower-end seed treater on the farm, "if wind permits, increase the slope of the auger so it pulls the product through the auger a little longer and allows that seed to tumble in that grain auger. The tumbling of the seeds helps that secondary mixing." And, run that "auger as slow as possible to keep the seeds in the tube as long as possible."
- 4. Make sure the product is dry before pouring it into the seeders. In higher end seed treaters, the drum "allows that seed to get air flow and dry time." If we're putting the seed into a truck, make sure it is dry "before it is put into any seeder."

Dilia Narduzzi

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FARM PERSPECTIVES



Letter from Europe

BY MARIANNE STAMM

ackground: Marianne Stamm grew up on a pioneer farm in the Peace country of British Columbia. Marriage to her Swiss husband Robert sent her to a mixed family farm in Switzerland, then back to a grain farm in Westlock, Alberta. She has now moved back to Switzerland to be near the grand-children. Looking at the Swiss and/or European agriculture scene from the perspective of a western Canadian grain farmer can be interesting.

grain farmer can be interesting.

In the two months "back home" in rural Western Canada this summer, I couldn't get enough of the wide expanse of sky above and around me. Big. That's what struck me this last visit. Everything is big the sky, the fields, the grocery stores, the steaks, the highways, the trucks. I forgot all that I'd been conditioned to believe in my time living in Switzerland. I drove a Dodge Hemi pickup and ate as many big steaks as I could with total enjoyment. You're not supposed to do that, you know. But no one around seemed to worry about whether their vehicle was puffing out too many emissions, or that eating meat, especially red meat, fosters global warming.

Swiss media tells me that farmers are the worst anyway, when it comes to harmful emissions. In fact, they are the reason that the Swiss are not more prosperous, according to a recent headline spread over the whole page of our local paper: "Der Agrarschutz vernichtet Wohlstand"

— "Agriculture protectionism destroys prosperity" (*Schaffhauser Nachrichten SN*, Thursday, October 6, 2016). I almost choked on my morning coffee.

I occasionally do the layout for our local farm paper. Headlines are important — they capture the reader's interest. But this headline didn't even reflect the content of the article, which was an interview between the SN and the director of Think Tank Avenir Suisse. Only one small paragraph had anything to do with agriculture. Now the Swiss aren't exactly at the bottom of the world's list of wealthy countries. In fact, despite what outsiders see as high food prices, the Swiss pay the third lowest for food in relation to income. So I find it hard to feel sorry for them that government agriculture subsidies are supposedly keeping them from even more wealth.

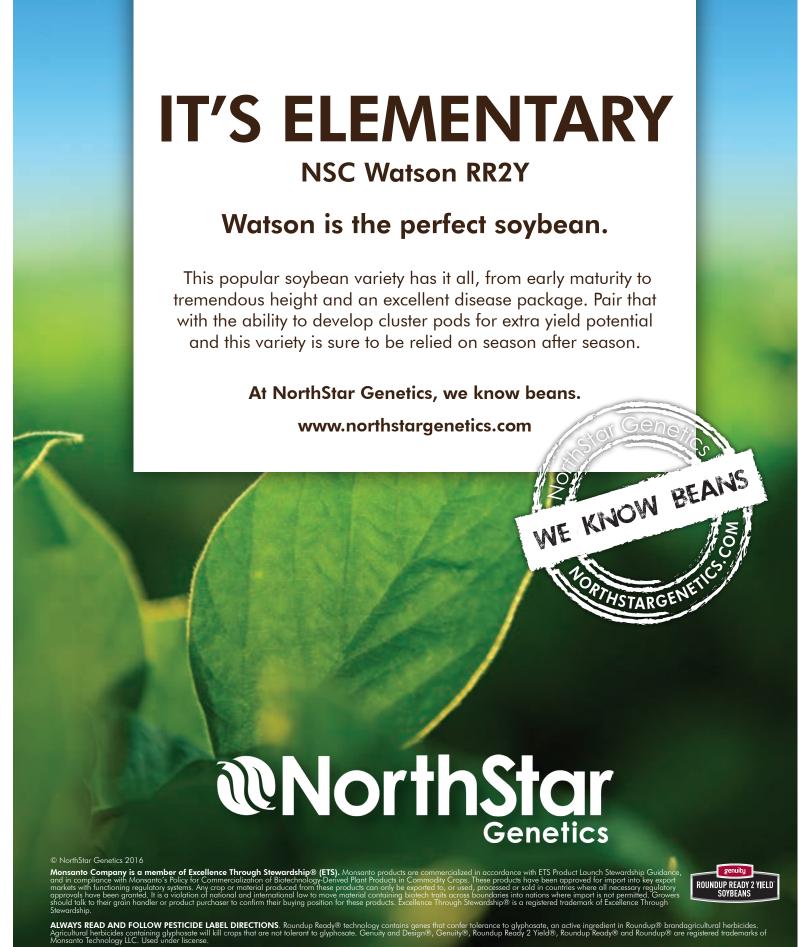
One thing hit home to me during my stay in Canada. Where we live affects the way we see the world. Here in Switzerland we live in the middle of world happenings. The Syrian war isn't that far away, neither is Putin. Refugees stranded in Italy are only a day's drive away. We live on top of each other, so that everyone sees what I do, and what I do affects the next person. That makes us a little paranoid, I think. A person living on a farm on the Canadian Prairies can be forgiven for thinking it doesn't matter if they drive a big truck (I don't know if it does either). That little bit of exhaust

in that big sky surely can't matter. With so much space, what difference does it make if a herd of cows belches methane gas into the air? Western Canadian farmers are thankful there are big feedlots to sell all that downgraded wheat to. Which consumers would eat bread from feed wheat? Certainly not the Swiss, who are spoiled with some of the best bread in the world? If their wheat all turns feed, as it did this last summer, they're the ones with the money to import No. 1 wheat from somewhere else. Like from Canada.

Marianne Stamm is a freelance farm writer. Email her at marerobster@ gmail.com.



Schleitheim in the Fall: Schleitheim is the village I live in and write from.



FARM FINANCIAL PLANNER



Switching up a succession plan

When children change their minds, parents revise their farm succession plans

BY ANDREW ALLENTUCK

entral Manitoba farmers Lloyd, 59, and his wife Ellie, 58, have been running their grain farm for four decades. With 1,920 acres of land they own personally and 960 acres in their farming corporation and reasonably up to date machinery owned by the corporation, they face the common problem of generational succession.

They have two sons, Dave, 35, and Charlie, 30. Dave is married with two children. He works in the family farm business, helping with management and hands-on chores. One day, he and his parents figure, he

will take over the farm. He has 480 acres of his own nearby. Charlie developed his own off-farm business. Lloyd and Ellie figured that, if Dave got the farm in a generational transfer, Charlie should get some compensation. Duly, Lloyd and Ellie bought a \$2 million joint and last to die life insurance policy with the intention that Charlie would be the beneficiary.

Things have changed. Charlie now wants to get back to farming. He rents land nearby and uses the family farm corporation's machinery. He wants to be part of the generational transfer and have a piece of the whole family farm business through a buyout.

ADJUSTING TO A NEW REALITY

Now it's necessary to carve up the family estate while protecting the interests of the parents and each of the children. According to farm financial planning experts Don Forbes and Erik Forbes of Don Forbes & Associates of Carberry, Manitoba, eight of the nine personally owned quarters can be transferred to Charlie and one to Dave. The transfer can make use of Lloyd and Ellie's qualified farmland capital gains exemption of \$1 million each to bump up the value of the land up on transfer. The adjusted cost base would be increased by \$2 million with the realization of the balance of any market value to be deferred until Charlie wants to sell or transfer his interest in future. The transfer will probably incur the Alternative Minimum Tax and modest provincial tax. The largest part of the transfer will be tax free.

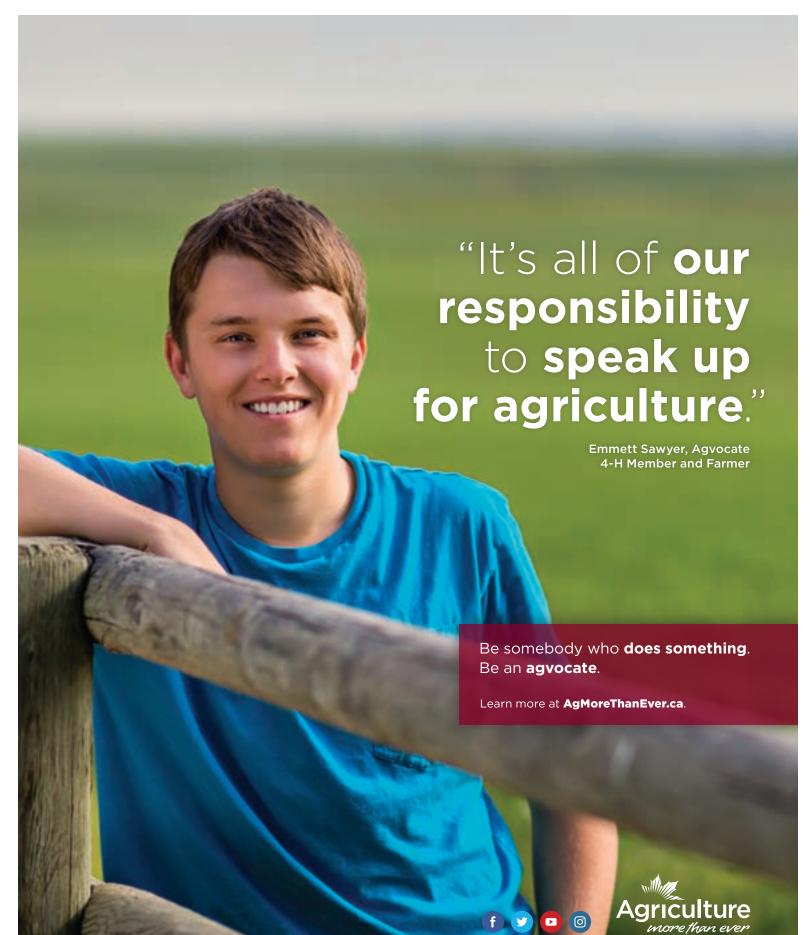
Charlie will gain clear title and he will take back a zero interest promissory note for the transfer value registered against the land tittle. The note will require no periodic payment.

This structure allows Charlie to control his land, and to participate in any future gain in value of the land. The structure does not require him to borrow money to purchase the land outright. If he did have to come up with money, his cash flow would probably be

impaired, Don Forbes notes. The promissory note would be structured to be forgiven on the death of the surviving spouse after the first passes away. The promissory note would protect Lloyd and Ellie. Charlie would be required to pay fair market rent as a basis for Lloyd and Elsie's retirement.

Life insurance is both the mechanism for transfer of capital value and the backstop for value contained in the land transfer. The parents should keep their present joint and last to die term insurance policy. The payout of the policy on the death of the last parent will provide a legacy for the children. Currently, premiums are \$17,819 per year, which Lloyd and Ellie are paying personally.

Lloyd and Ellie are considering building a town home. It would be a single level structure with good access for handicapped persons, e.g., a wheelchair ramp, wide doors, etc., the house will be liveable for the parents should they develop disabilities, will be rentable, or could be sold for what is likely to be an appreciated price. Call it a flexible investment, it's a future cost with a built in gain or, if they use it themselves, a preliminary to selling their present farm house.





Charlie wants to get back to farming

An existing mortgage due to be paid in full in just a few months could be re-amortized and then used to pay for new home construction. If the farming corporation guarantees the loan, the lender will have a secured interest. The farm corporation could advance funds. Lloyd and Ellie should pay interest to the corporation at the Canada Revenue Agency prescribed rate, currently one per cent per year.

Assuming that Lloyd and Ellie work for six more years to Lloyd's age 65, then his present balance of \$247,000 in RRSPs growing at \$12,000 per year with a 3.6 per cent rate of return will rise to \$387,000 and support annuitized income of \$1,500 per month for 35 years to his age 100. Ellie has \$219,000 in her RRSP and will also add \$12,000 a year for the next six years. At that time, her RRSP will have a value of \$352,400. Annuitized, that capital will support benefits of \$1,500 for 36 years.

For Lloyd, income will consist of \$581 per month anticipated Old Age Security using 2016 values, Canada Pension Plan benefits of \$590 per month on the same basis, and income from RRSP of \$1,500 per month. Ellie can expect \$581 per month Old Age Security benefits at 2016 values, Canada Pension Plan benefits of \$590 per month, \$1,500 in monthly annuitized investment payments and \$10,000 of land rental payments. The total of these sums would be \$14,819. Tax would be approximately \$4,200



Bought puts, selling calls

Using puts as insurance to protect your stock portfolio



ANDY SIRSKI

n the September 2016 issue of Grainews I wrote about how to buy puts to insure the value of our stocks and portfolio. I didn't get around to implementing the strategy I wrote about at the time. However, on October 1, 2016, I owned 1,000 shares in Silver Wheaton (SLV) valued in U.S. dollars and I was selling calls for about \$600 a week.

Then I had 900 shares of the same stock valued in Canadian dollars and I was selling monthly calls for about \$1.50 per share. That was all well and good until the price of gold and silver started to drop as the U.S. dollars started to rise. That was because it looked more and more that U.S. interest rates were going to go up later in 2016.

I decided to own shares in both currencies because I couldn't decide if the Canadian dollar was going up or down. So I split the shares.

Then I bought a put at the price of the day — \$4,500. That sounds like a lot of money and it is. But actually this insurance costs about \$0.12 cents per week per share for 20 weeks, or about \$0.50 cents per month. And I could, or will, sell calls for a lot more per share than that.

Around October 5 I sold weekly and monthly calls for \$3,100. That's two thirds of the cost of the premium I used to buy the puts. One more trade and I should pay for the whole cost, and collect the premium from the calls for the next four months.

If the price of the shares goes up I won't share the capital gain unless I roll the put into a higher price, and that would cost something. But generally I spent \$4,500 to protect the value

of my SLW shares and stand to make two to three times that amount from selling calls.

A lot of shares don't trade enough volume to make this work. Using weekly calls make this easier to work than monthly calls.

SLW is going through a court case that could cost big bucks but the company can likely handle any outcome.

Andy is mostly retired. He plays with his granddaughters, gardens and travels a bit with his wife. Andy has a small tax business and also publishes an electronic newsletter where he tells what he does with his investments. If you want to read it free for a month send an email to Sirski@mts.net.

per month, making disposable income \$10,619 per month or \$127,428 per year. That would support at very pleasant way of life in their new home, travel and new vehicles from time to time, Erik Forbes notes.

Accumulation of savings should be done within Tax-Free Savings Accounts. At present, neither Lloyd or Ellie has a TFSA. The limit at time of writing is \$46,500 per person and will grow at \$5,500 per year. Rules for withdrawal and contribution are simple, unlike the complex rules for RRSPs.

A final suggestion, Don Forbes says, is to transfer several RRSP accounts to one institution and to switch out of mutual funds, which have average fees of 2.6 per cent per year, to exchange traded funds with average fees as low as 7/100 of one per cent. Most bond and stock ETFs have fees in a range of one to two fifths of one per cent for plain vanilla major market index funds. The savings on fees would wind up in Lloyd and Ellie's pockets. If they save two per cent a year on fees, over the 35 years of our projections, the couple would save as much as 70 per cent of what would amount to a rising asset base. Fees tend to be lowest on the simplest ETFs, that is, those that replicate major market indexes. The couple should take independent investment advice with a view to achieving a diversified and cost effective portfolio, Erik Forbes suggests.

"This couple's farm business has been very successful," Don Forbes says. "The process of transferring assets will ensure that each son gets a strong ongoing business, that taxes that are paid are reasonable, and that the entire process is self-sustaining and insurance-backed. It is package of relatively simple concepts. With the assistance of Lloyd and Ellie's lawyer to draft suitable will and to review these recommendations and their accountant to ensure the tax implications of the restructuring are as anticipated, the couple and their children will have asset security, acceptable tax costs, security in the process of generational transfer and backstops should some circumstances change. It is a secure plan."

Andrew Allentuck is author of "When Can I Retire? Planning Your Financial Future After Work" (Penguin, 2011).



HART ATTACKS



Why not a closed-for-business wall?

The Canada-EU trade deal crumbles, leaving seven years of negotiation in its wake

BY LEE HART

Think if Prime Minister Trudeau had any gumption at all he would build a wall to keep Americans and Belgians out of Canada. If they don't like our trade deals we'll just keep our scenery, oil and hockey players to ourselves. With this issue of *Grainews* being published on U.S. election day, I am not sure where I got the wall idea from, but it sounds reasonable to me.

But this is probably a clue why I never pursued a career in international trade negotiations or politics. Besides the fact I know nothing about it, I can be short on patience.

The European Union trade deal (known as the Comprehensive Economic and Trade Agreement — CETA) apparently fell apart in late October as we were about to go to press, all because one small Belgian province, Walloon, was worried about the potential impact of the agreement on its dairy industry.

After Canadian Trade Minister Chrystia Freeland picked up her ball and tearfully headed for home indicating there was nothing more to talk about, apparently there was some eleventh-hour-59minute talk that perhaps a deal could still be salvaged once the agreement was fully explained to Walloon — I guess they weren't listening. So by the time you actually read this, everyone may have kissed, made up, signed the deal and cracked the champagne to celebrate completion of the agreement.

What gets me is that this deal sputtered after seven years — that's SEVEN YEARS — of negotiations. How complex is it? Holy smokes. Who can keep their attention on one subject for seven years? You'd think Walloon could have raised its hand two, three, four or five years ago indicating it had concerns, rather than on the eve of what was supposed to be the agreement signing.

It reminded me of the surprise developments in Canadian politics in 1990 when Elijah Harper, a Manitoba MLA raised an eagle feather indicating his refusal to agree to the long-negotiated Meech Lake Accord — a document intended to amend the Canadian constitution. Harper's action prevented the Manitoba government from giving its support to the Accord. And the Accord couldn't pass unless all 10 provinces were on board. Harper maintained First Nations people had not been properly consulted. His feather derailed the whole process.

But back to the EU trade agreement — after seven years of negotiations which apparently had 26 countries on board, here is one small province with about 250,000 milk cows concerned the agreement might allow cheap Canadian dairy products onto its store shelves. That had me wondering how cheap are Canadian products once they do get to Europe. Is the one pound brick of no-name orange

Canadian cheddar that costs me about \$12 here in Calgary landing in Belgium cheaper that than, or do they call that cheap?

And on the U.S. trade front, I recently read where the U.S. found loopholes to ship certain dairy and poultry products into Canada.

The dairy product is something called diafiltered milk — apparently it is a double filtered milk product intended to be used as an ingredient in food products. But it's being shipped into Canada and used as the "real milk" component in dairy products rather than just an ingredient, and that's costing Canadian producers about \$230 million per year.

And then on the poultry side (and this sounds a bit like my personal bookkeeping) the U.S. is shipping more spent hens into Canada for processing than it actually produces. Think about that. Under trade rules, U.S. spent hens (birds no longer producing eggs) used for soups and chicken nuggets don't affect quotas protecting regular meat birds. So one recent year, the U.S. shipped 101 per cent of its slaughter volume. That is one very efficient system. The meat is apparently dressed up as "spent hens" but the Chicken Farmers of Canada estimate about 40 per cent of imports are illegal.

Federal Agriculture Minister

Be seen. Be heard. Be part of

the AG-TION!

Lawrence MacAulay is looking into both of these issues.

I wonder if anyone has every figured out what it costs to negotiate an international trade deal. The CETA deal with the EU was seven years in the making, the North American Free Trade Agreement was under discussion for about 10 years, the World Trade Organizations operates in "rounds." The Uruguay Round lasted about eight years, the Doha Round has been underway since 2001. Nothing moves fast in the world of trade negotiations. And I doubt any of the participants are sharing rooms at the Super 8 Motel and eating at Subway while they are underway.

And as we've seen with Canadian beef, no sooner are the deals in place — the signing makes a great photo op — then someone is challenging, or breaking, or trying to circumvent (find a loop hole) in the agreement.

Trade deals can obviously benefit economies, but they are a lot of work. A wall is so much simpler. Or for Canada we could just build a nice sturdy 10-foot high fence made of pressure treated softwood lumber that won't be exported to the U.S. and that would end a trade dispute that has been ongoing for 36 years with no end in sight.

Lee Hart is a field editor with Grainews based in Calgary. Contact him at 403-592-1964 or by email at lee@fbcpublishing.com.





The truth is in the hopper

This fall marked the first harvest for a new farmer with a brand new field



TOBAN DYCK

o you remember me griping about gophers eating my soybeans? I broke 120 acres of pastureland last feel, seeded soybeans on it this spring, and then, come emergence time, noticed that huge circular sections of the field were missing plants.

It was gophers. They were eating my soys. They are about five acres of soybean plants.

It was frustrating to watch. In fact, it looked devastating from

the road. The field did not look as lush and clean and symmetrical as our other soybean fields. In early spring, I would pluck the occasional plant to look for nodulation, but was always disappointed with what I saw: one big nodule, and rarely any more. There were also signs of root rot appearing shortly after emergence.

It put me on edge for the season. I would check the field, but only out of a deep sense of responsibility. I didn't want to check. I was always afraid of what I'd see, and I was afraid I wouldn't know how to deal with it.

Throughout the season I discovered more pockets eaten by gophers, and some areas where plants didn't grow at all. Perhaps

those were alkali; perhaps it was something else causing these voids. My mind wandered. My imagination came up with all sorts of fatalist conclusions.

(Side note: farmers too often work in isolation from one another, allowing anxieties and ungrounded fears to fester and take on a life they were never meant to have. Talk to others. Do things outside of your farm. Mental health is a real issue in the agriculture community, and it's a serious one that has been largely neglected, undocumented, and discredited for years. That has to change. It is changing. Take your selves seriously and take care.)

It won't have been a pretty field from the road. Though, those who drove by it every day to get to their homes will have been somewhat engaged with the field, watching its conversion from pastureland to cropland in a short amount of time.

I put a lot of time and money into this land to prep it for seed. I needed a crop. I needed the areas where plants actually grew to make up for the voids. I was pleasantly surprised.

HARVEST TIME

My dad was operating the combine. We finished my other field and were about to bite into the unknown territory. We had no history with this field. Also, we have never farmed land so far from our yard.

He asked if I wanted to drive the combine, as it was my land. I said "no" for two reasons: I really enjoy driving truck (I have it down to a smooth science), and I was petrified of sending a rock through our combine (it's the stuff of nightmares).

The land in question is on the edge of the Pembina Valley escarpment. Rocks are a reality for farmers in that area. So, I guess, they are a reality for me now. We rolled the field after seeding, but I've seen what rocks can do to the guts of those machines. It's not pretty, and it's expensive. I trusted my dad's eyes over my own.

The early reports from the walkie-talkie were positive. There were soybeans flowing into the hopper. And even that, on a base level, was a relief for me.

"Phew. There are actually soybeans in those pods, and they look okay," I thought, relieved and excited to get to the field with the truck.

Later reports yielded even better results. Not only did I have a crop, I had a good one — one that stood shoulder-to-shoulder with my other field.

I'm not alone. Many farmers pulled in record soybean yields this year in areas where many other crops drowned or were riddled with disease.



Never judge a field from the road

I'm too green to fully understand the potentially negative effects of mono-cropping. I know there are some. Of course there are. There have to be. I've heard stories. I've read the science.

Rotating away from crops that consistently make money and are easy to grow in favour of biodiversity, soil health and other longgame benefits must be difficult. It will be for me, and I know of some farmers who are considering growing the same crop on one piece of land up to five, six, seven years in a row

Your corn and sunflowers are in the bin. Your fields are tilled (or not tilled) and ready for winter. Farmers, while considering crop options for 2017, think about soil health and sustainability.

Also, don't fret a few gophers, and never judge a field from the road. I've done that often. I have always been wrong.

"Plants are amazing. They are living and breathing things that will do all they can to stay that way," someone once told me. I'm reminded of this when I worry.

Toban Dyck is a freelance writer and a new farmer on an old farm. Follow him on Twitter @tobandyck or email tobandyck@gmail.com.





UNDERSTANDING MARKET BULLS AND BEARS



Woulda, shoulda, coulda

Market risk strategies can lower the risk of pre-pricing grain early in the year



BRIAN WITTAL

ou can't evaluate your grain marketing decisions until much later in the year, when you can look back to see what happened in the markets. What can you do to make it easier to make these decisions?

First, knowing your costs of production is likely the most important aspect to helping you make good marketing decisions. When you know what you have in the crop and what you need

from it to break even or make a profit, you can start putting together a marketing plan that will help you maximize pricing opportunities.

With the early start to spring this past year and the warm dry weather that followed, prices offered for new crop grains started to rise in late May to mid June. Then, fortunately, we started to get some rains and continued to get even more through July. That prompted new crop prices to fall as the potential for a good crop was much better.

During that time the price for new crop peas reached between \$10 and \$12/bu. Lentils reached \$0.35/lb., canola futures were above \$530/tonne and wheat values were in the \$6.50 to \$7/ bu. range for a No. 1 CWRS 13.5 per cent.



Did you price any of your new crop at those levels? If not, why not?

your contract

The most common rebuttal I get to this question is "I don't want to risk pricing any grain now because what if I don't get

a crop and have to buy back the contract later at a higher price? It's too risky!

This is no doubt the biggest reason that many farmers do not pre-price new crop grain early in the year when prices may be at the best levels you may see for the year. You won't really know until six to 12 months down the road when you can look back to see if your decision to price was the right one to make or not! The old "woulda, coulda, shoulda" dilemma.

So let's look at what you can do to help reduce that risk and feel more comfortable about prepricing new crop grains at profitable levels early in the year.

PRE-PRICING

You could use traditional hedging strategies to lock in futures prices when they are at attractive levels, such as when canola reached a high of \$535/t last June and when Minneapolis wheat futures were trading at US\$5.80/bu. The cost of doing a hedge could range from \$40 to \$75/acre or more depending on your projected yields. You will need to be prepared to keep additional money in a hedge account to pay for potential margin calls to keep your hedge active if the markets move against you, until you are able to unwind your hedge after harvest. You could also face currency exchange risk between the U.S. and Canadian dollars. Another issue is that you can only hedge canola, corn, beans, oats or wheat. Pre-pricing all other crops would leave you with price or delivery exposure, unless you have an Act of God clause in the contract.

Because hedging doesn't give you a good way to pre-price all of the grains you grow, you're still faced with a fair bit of marketing risk.

Using option contracts to preprice grain is a good strategy, but again you are only able to get options contracts on canola, corn, beans, oats and wheat, and you could face exchange

OPTIONS

Some say options are less risky, as you know what they will cost up front, and there are no margin calls so you don't have to keep money in a margin

Depending on the volatility in the markets and your projected production your cost to use options could range from \$5 to \$50/acre or possibly more depending on the position you want to take in the market.

You could use Put options to establish a minimum price for your grain until you are ready to sell the physical grain. Or, if you pre-price some grain for new crop delivery you can use a Call option to keep you in the market should futures rally higher. This will also provide you revenue protection should you not be able to deliver against your contract at harvest and futures prices have gone higher meaning you will have to pay a buyback cost. Your Call option will have increased in value, helping to offset some or maybe all of the costs of the

Options can provide you with some good risk management strategies but again they are not available for all grains.

Before you can use hedging or



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options contracts you need to set up a trading account through a commodities broker. The process takes time. If you think this is something you want to do, find a broker you can work with and set up an account now, so you're prepared when the time is right.

Crop Insurance and hail insurance provide protection from production loss. Crop insurance also offers some quality loss coverage but remember it is first and foremost production loss insurance; if you end up with a good yield above your coverage threshold but poor quality (as

many have this fall) you likely won't get an insurance payout.

If you did pre-price some grain this year, hopefully you will be able to deliver your poor quality grain and take a grade discount on the contract. Otherwise, you'll have to buy out the contract if your buyer won't take the poor quality grain. Read the fine print details in your contract about deliverable grades and discounts.

Global Ag Risk Solutions has been offering a revenue-based insurance program across the prairies for the past six years. Its product offers grain producers a guaranteed level of grain revenue protection for their farm, based on their individual historical financial records. This way, farmers are covered for production loss, quality loss and/or market value loss.

Regardless of what may cause your grain revenue loss, even spoiled grain in a bin, you know the coverage will protect your farm's overall grain revenue.

Another aspect of this insurance is that it provides farmers with the incentive to maximize their production from an agronomic perspective, knowing that input costs are covered.

Global Ag Risk Solutions offers farmers an incentive to be more aggressive when it comes to pre-pricing their grain when profitable prices are available early in the year. If farmers who pre-price end up in a situation where they cannot meet delivery commitments because of production loss and have to buy back contracts, if they are in a revenue claim scenario with GARS the costs of the buybacks will be deducted as an expense from their overall grain revenues. In essence the insurance will pay the cost of the buybacks.

These are some of the best options available to help you reduce your overall marketing and pricing risks. Knowing and understanding how these programs work is the first step to determining if they will work for your farm. Talk to a broker for details on hedging and options; and call your local insurance office to talk crop insurance and call a Global Ag Risk Certified Agent to talk about their revenue insurance program.

Brian Wittal has 30 years of grain industry experience, and currently offers market planning and marketing advice to farmers through his company Pro Com Marketing Ltd. (www.procommarketingltd.com).



The landscape makes its mark

People and culture are influenced by the environment more than we realize

BY LISA GUENTHER

here are two eyes in the head — the eye of mystery, and the eye of harsh truth — the hidden and the open — the woods eye and the prairie eye. The prairie eye looks for distance, clarity, and light; the woods eye for closeness, complexity, and darkness. The prairie eye looks for usefulness and plainness in art and architecture; the woods eye for the baroque and ornamental. Dark old brownstones on Summit Avenue were created by a woods eye; the square white farmhouse and red barn are prairie eye's work. (From The Music of Failure by Bill Holm).

Do you see the world through a prairie eye or woods eye? They are different, but one isn't better than the other, Holm wrote. And while we all have both, one tends to be dominant, he added.

I stumbled across this quote in October while working on a presentation for the Saskatchewan Writers' Guild. The Guild had invited me to a panel on travel writing, and a chunk of my presentation was focused on how to write about place.

I don't think of myself as a travel writer, but I do travel sometimes to find stories. Whether it's within the province or outside the country, the landscape often comes into those stories in some way. I also like to think about people's relationship with the land, how it affects culture and individuals, and how we affect it, whether I've been to that place or not.



Evie Carver and Blue Jeans await their turn during the gymkhana during the Bonnyville Fall Fair and Farmers' Market.

And although I grew up in the bush, I rely on my prairie eye more than my woods eye, I think.

Most writers pay attention to setting, but it's especially appropriate in agriculture. It's interesting to know that early farmers in Australia built fences and houses out of bluestone, a volcanic rock. Or that the soil around Cumberland House, in northern Saskatchewan, is "conducive to growing anything," according to Murray Gray, a commercial greenhouse operator and community organizer I interviewed for *Country Guide*.

This fall, I shared a table with fellow writer Billi J. Miller at the Bonnyville Fall Fair and Farmers' Market, where we sold our books. Billi and I had a good view of the gymkhana competition in the arena.

One of the competing teams was Evie Carter, and her appaloosa Blue Jeans. I had a leopard-spotted Appaloosa as a kid, and I still have a soft spot for these horses.

The Appaloosa breed is a good example of that interaction between environment and culture. There's a little debate about how and when the Appaloosa's ances-

@ccga_ca

tors came to North America, but most believe they were introduced by the Spanish. Once they spread to the northwest, the Nez Perce started selectively breeding them.

The horses changed their culture. They could travel to the plains to hunt bison. They moved around a lot more, giving up their houses for tipis, and packing light. Horses also enabled trade and allowed the Nez Perce to build wealth.

The landscape also made its mark on the horses, as the Nez Perce selected animals suited to the environment. They favoured horses with good feet and legs.

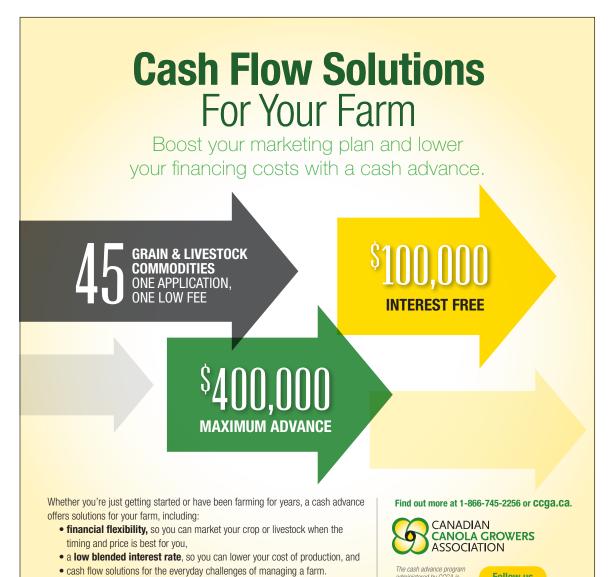
Many of the horses had a running walk that was very comfortable for the rider and easy on the horse (this isn't as common in today's Appaloosa, in case you're wondering). At one time, people called these horses a Palouse horse, named after the river that runs through Idaho. That name morphed into Appaloosa.

I'm not sure how much today's Appaloosa resembles the original Nez Perce horses. Some of them look pretty Quarter-Horsey to me (that's not a knock against Quarter Horses — I own a few). The Nez Perce lost most of their horses after they surrendered to the U.S. Army in Montana's Bear Paw Mountains in the late 19th Century. But the breed does retain a few unique characteristics, including their coat colours.

If you wanted, you could go through the same kind of analysis with the Quarter Horse, developed to work cattle and sprint the rough quarter-mile tracks in the U.S. Or any number of livestock breeds, for that matter. Or architecture. Or fencing systems (I saw some very photogenic hardwood fence posts in New South Wales).

With the rapid changes in technology these days, it's good to remember that there is a world beyond our smart phones. To look up from our screens and see what's right in front of us.

Lisa Guenther is field editor for Grainews based at Livelong, Sask. Contact her at Lisa. Guenther@fbcpublishing.com or on Twitter @LtoG.



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Western Canadian agronomy extension

Working together could go a long way to benefit both farmers and agronomists



ROSS MCKENZIE

here do you go for reliable, unbiased, up-to-date agronomy advice? It's difficult to keep up with and evaluate the latest agronomic opportunities, innovations, research and technologies that might benefit the bottom line of your farming operation.

To further complicate things, information different sources can be contradictory. Different companies often have conflicting information or recommendations.

How can extension providers do a better job to provide unbiased, sound agronomy information, in a way that farmers can access easily?

SYNERGY AMONG GOVERNMENTS

A good place to start would be for the three Prairie provinces to improve synergy among their agriculture extension staff. Many staff interact informally, but this interaction should be made essential, promoted and encouraged by the three provincial governments.

There is considerable duplication of information among the provinces. Each has its own web site with fact sheets and booklets, etc. with similar information. Why not just have one tri-provincial website for all agronomic information, jointly maintained, with jointly-produced information? With a team approach among the three provinces, it would be easier and more efficient for provincial extension staff to keep all agronomic information up-to-date and current. There could be significant cost saving doing this, too! And it would be easy for all prairie farmers and agronomists to simply go to one website for all agronomy information.

Various agencies conduct agronomic research including Agriculture and Agri-Food Canada (AAFC), the U of A, U of S, U of M, applied research associations, private companies and producer organizations. Synergy among all these groups is essential to extend research information to farmers. With one inter-provincially coordinated website, all groups could post their research results and recommendations in one place. To ensure information and recommendations were current, accurate and unbiased, all information could be posted by provincial specialists in a peer reviewed format.

SYNERGY AMONG AGRONOMISTS

Provincial extension staff are important but they are few in number. In Alberta, there is almost no staff left to make farm visits, organize agronomy meetings or field days. In most regions of the Prairies, industry agronomists have taken the lead in providing farmers with

agronomic advice. There are real opportunities for government agronomists and industry agronomists to work co-operatively to develop a prairie wide agronomy network to exchange and share information. For example, during the growing season, provincial and industry agronomists are scouting fields for disease, insects and other problems. As issues develop, all members of a prairie wide agronomy network can keep each other informed and aware of developing regional problems. Co-ordinated management recommendations could be developed among network members. This could provide farmers with quick access to current information and recommendations. A well co-ordinated, interprovincial agronomy network would benefit farmers and agronomists.

This synergy could be expanded to include a range of extension activities. For example, as I mentioned in my last column, having about 16 agronomy research centres across the Prairies would be a great target for conducting co-ordinated research across the Prairies in the various agro-ecological regions. If this could be achieved, these research centres could be used every year or every other year to run diagnostic field schools, focusing on a wide range of agronomic issues within each region. These field schools could be co-operatively planned, run by the local agronomy researchers jointly with provincial and industry agronomists, in a team effort. Diagnostic field schools are an excellent "hands-on" way for farmers to learn. Many farmers are very visual in the way they learn. Seeing agronomy lessons in the field can be very effective.

The teams that organize the diagnostic field schools in the summer could also organize winter agronomy update meetings.

FUTURE DIRECTIONS?

Improving agronomy research and extension will take incredible vision and effort by governments, universities, producer organizations, applied research associations and industry.

Developing synergy among the three provincial agriculture departments and with industry agronomists would go a long way to improving agronomy extension. The first step would be for senior managers of the three provincial departments of agriculture to put mechanisms in place for provincial specialists to formally work together. There could be significant cost saving doing this, too! Can the three bureaucracies make this happen? Time will tell.

Ross H. McKenzie, PhD, P. Ag., is a former agronomy research scientist. He conducted soil, crop and irrigation research with Alberta Agriculture for 38 years. He has also been an adjunct professor at the University of Le



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SOILS AND CROPS



40 years of writing for *Grainews*

Les Henry reflects on his 40 year tenure in the pages of Grainews

BY LES HENRY

t is hard to imagine that 40 years have slipped by since I scribbled my first piece for Grainews in 1976. It was "Nitrogen: When, what kind and how much to apply." Today we would call it the 3 Rs: Right time, right source and right rate. The 4th R, right placement, was yet to come.

At that time I was in mid-career and Grainews was a young kid just a few years old. The editor was John Clark, who was a classmate of Don Rennie, head of soil science at the University of Saskatchewan at that time. John asked Don to write articles for Grainews. My job was half extension so Don asked me if I would like to take it on. It was a grand opportunity and I jumped at the chance.

In the early days, Grainews was published by United Grain Growers, a farmer-owned grain company formed in 1917. Grainews was considered an extension piece by UGG to serve the needs of farmers and there was NO advertising — UGG plus subscriptions paid the bills. Many of the writers were actual stubblejumpers who had some skin in the game.

For more info on early Grainews see my column of January 7, 2014 when the headline was "Grainews from the beginning."

PRAIRIE AGRICULTURE: 1976 TO 2016

The past four decades have seen many changes in the way we do our farming and the way we interact with our suppliers of inputs and purchasers of our products.

The 1970s were the glory years. Grain prices shot up quickly, rainfall was mostly good and farmers were making money hand over fist. The use (and price) of inputs advanced rapidly and land prices skyrocketed.

Summerfallow was still a major land (mis)use but new crops and practices were appearing.

In Saskatchewan, one of the major developments was the appearance of Dr. Al Slinkard in the Crop Development Centre at the U of S. He was a pulse breeder from the U.S. Pacific Northwest. He established peas and lentils as major crops in many areas. Much of the farm net worth from the clay belt of west-central Saskatchewan has come from lentils. This year (2016) is an exception. The excess rain did a number on lentils but it will still be a major crop in that area in future.

The 1980s and 1990s brought sharp declines in both production (dry years) and prices (other areas of the world were producing enough to satisfy most markets).

The 1988 drought was particularly devastating with almost no crop in many areas. I remember driving from Hanna, Alta., to Saskatoon in August and remarking that two old 90 Massey combines could have handled any crops good enough to combine in all that area.

But the big killer was interest rates — as high as 18 to 20 per cent for a time. Debt on highpriced land bought in rosier times could not be serviced with the



This picture of me in my office last month is a little more current, and the computer is a little more modern than in the photo below.



This picture was taken in my office in 1995. I'm surrounded by the issues of Grainews published between 1976 and 1994.

crop returns and much land was lost and turned back to creditors. In the late 80s land prices dropped like a stone as distress land was forced on the market. The back page of many issues of the Western Producer was filled with distress land of Farm Credit Corporation one week and the Royal Bank the next week.

The dry years brought on serious soil drifting and spurred farmers to try experiments with zero till. "There has to be a better way" was a refrain by early adopters John Bennet, Biggar, Sask., and Doyle Wiebe, Langham, Sask., to pick two of many. The early June zero-till seeding demonstrations hosted by Saskatchewan Soil Conservation Association (SSCA) were a sellout for many years. The Manitoba/North Dakota (ManDak) Zero Till Association was also very prominent in promoting zero till.

Zero till really took off when seeders capable of the job were designed — and most of that was in farm workshops and small local implement manufacturing firms.

Beaujot, Morris and Bourgault come to mind.

Summerfallow gradually faded away. The other factors that led to continuous cropping and zero till was the availability of annual legumes and Roundup Ready canola to allow a cereal, pulse and oilseed rotation.

As summerfallow and excessive tillage faded away so did soil drifting. When a windy day in May comes along I have to come from my Dundurn farm to Saskatoon to see land blowing on new urban developments.

The demise of summerfallow had been predicted much earlier. A local weekly paper to which I subscribe, The Rosetown Eagle had this quote "it is safe to say that the day of the summerfallow in Western Canada is over." The date: June 12, 1924 as provided in "Looking Back, June 16, 2014!"

The 2000s started off with a huge flop. 2001 was very dry on my farm (3.7" rain May through July and only 12 bushels/acre peas). 2002 was also a bust year but rains too

Jim Halford, Pat and Norbert late for that crop did set up a reserve for 2003. For the next few years we lived "hand to mouth" for soil moisture, which was the yield-limiting factor most years.

The very large snowmelt of 2005 started to replenish soil moisture and the 20 inches of rain in 2010 sealed the deal. Since then, in our area at least, moisture has ceased to be the limiting factor. The irrigation pivots serviced by Blackstrap Lake have been an impediment to farming operations in recent years.

Big crops, good prices and ready markets have spawned huge changes and led to huge farms with land bought at huge prices. When the cycle will end is unknown but end it will and more huge changes and restructuring will occur.

MY GRAINEWS COLUMNS: 1976 TO 2016

I have a file with tearouts of the actual articles as they were published for all 40 years. What follows is a bit of the flavour of a selection of the columns over four decades.

Wheat: protein grading

The glory years of the 1970s saw columns on protein grading of wheat, beginning with the November, 1976 column. At the U of S we had considerable research showing that growing high-protein wheat was a matter of porking on enough N to get near to the peak yield for the moisture supply of any given year.

The protein theme carried on until October, 2000, issue when the headline was "We are finally getting paid right for wheat protein." The "right" system was a small bump in price for each 0.1 per cent bump in protein.

Nitrate down the well

Nitrate in subsoil, groundwater and wells was a research interest in my early years and carried on into the 1990s. Nitrate in well waters causes blue baby and can be fatal, so it is taken very seriously. The column was repeated every few years to make sure that young couples moving to a new farm with an old well made sure it was tested before using for baby formula.

In the U.S. today, nitrate in surface water from runoff and tile drains of intensively farmed corn land is a big problem. The great Mississippi delivers too much nitrate to the Gulf of Mexico bad news. Just this week I received notice of a webinar to discuss ways and means to remove nitrate from tile drains before it is released to the river system.

Soil salinity

In the 1970s and early 1980s soil salinity was a huge problem and the topic for several articles. Our lack of knowledge spawned a large research project at the University of Saskatchewan from 1982 to 1994. We determined that artesian discharge was the main culprit and the only solution was drainage and leaching. In many dryland areas rainfall is usually not adequate for leaching, although recent years have changed that.

By the time we finished the project the rainfall cycle had switched to dry and much salinity was reduced naturally. But, the super-wet years



of the past decade have juiced it up big time. Early on in the cycle this column predicted that salinity would rear its ugly head and it has. Most requests for public speaking are for the soil salinity topic.

Soil moisture

The first Stubble Soil Moisture Map created anywhere in North America was for Saskatchewan as of November 1, 1978. That map appeared in the February 1979 issue of Grainews.

In fall 1988 we almost did not print a map because it was almost all coloured RED, the colour for Very Dry. We made a special category "Summerfallow Not Full" to accommodate the special situation.

Fast forward to 2010 when the Stubble Soil Moisture Map for the three Prairie provinces included a "Super Wet" category to accommodate those areas with excess rain that resulted in a serious rise in the water table. Stuck combines are prima facie evidence of high water table.

MY FAVOURITES

What follows are a few examples of special pieces I enjoyed penning and readers seemed to appreciate.

September 1998. "What a difference a rain makes: 24 little hours." The piece was all about a three-day 3.4-inch rain ending June 18, 1998,

that was the difference between a crop and not that year.

March-April 2002. A three-part series on precision agriculture. The technology part of precision ag has grown fast, but the agronomy not so much. That is why widespread adoption has been slow. I still think that pretty pictures of past crops is not enough to do the job.

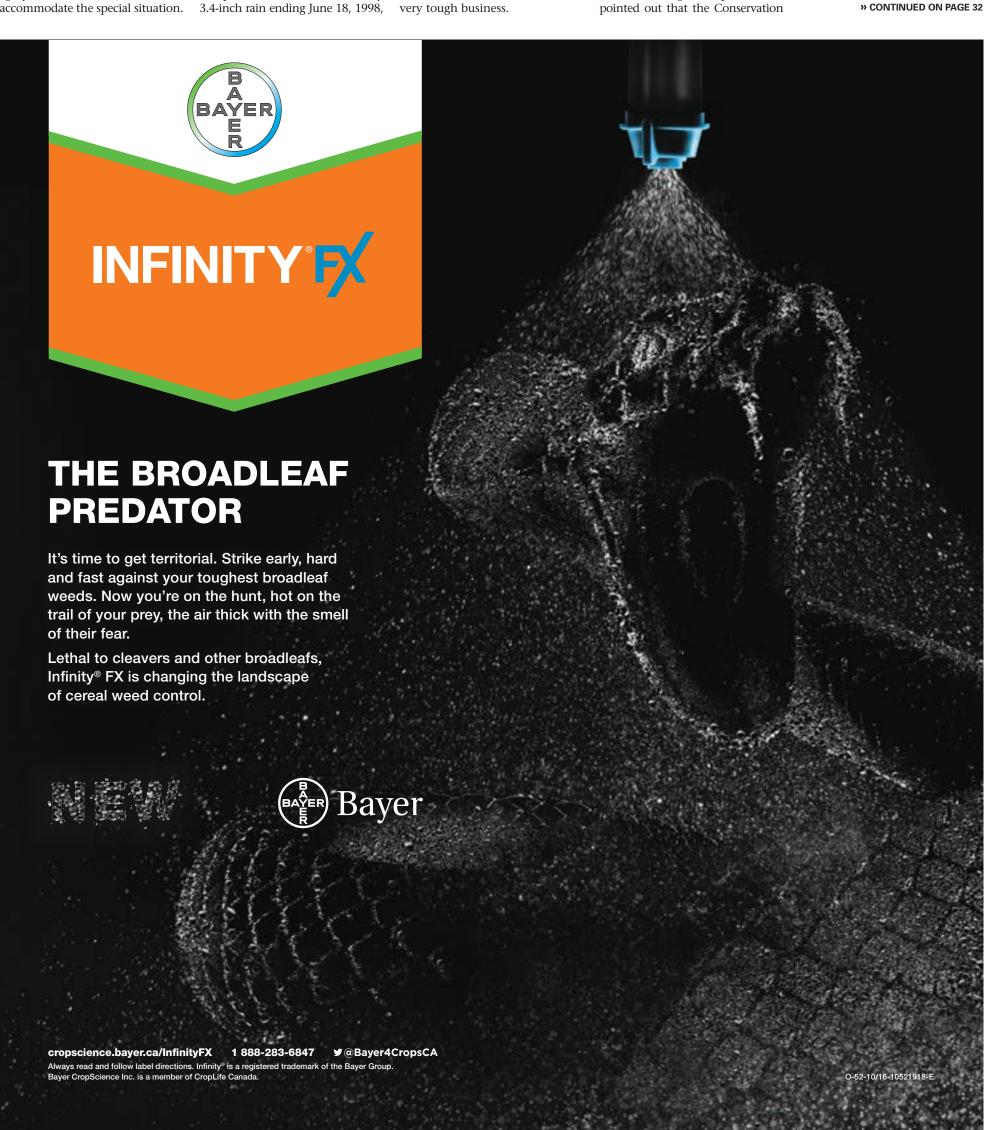
December 2003. "There is more in the farmer than there is in the land." The quote came originally from Doane's, an early U.S. private ag consulting firm. It recognized the importance of the few ounces of brains under a farmer's hat that determines success or failure in a

January 14, 2008. "Bread and beer." When wheat fetches \$6/bu. the farmer's share of a loaf of bread is \$0.11. If it should ever hit \$10/ bu. we would get \$0.18 from a loaf. Beer is easy. For each \$1/bu. we get one brown penny for each bottle of beer. Now that they have abolished the penny I guess we are completely out of luck!

March 10, 2010. "Drainage is not a dirty word." And December, 2010. "Farming and n eighbours." When those two pieces were penned I did not see any connection. Just today (October 5, 2016) I had a visit with a Saskatchewan government official I have great respect for. He

and Development (drainage) districts that exist in Saskatchewan were formed at a time when farms were much smaller and neighbours worked together more. It is true. In these super wet years drainage is one of the biggest issues in many areas and getting groups formed to deal with it is a tough job.

October 2012 and March 2013. "Earthworms." As I saw more and more earthworms when digging for seed in spring I spent summer 2012 reviewing the literature on the topic. The October piece put out what I had found and included a small survey for readers



40 YEARS OF SOILS AND CROPS



Extending information to farmers

For 40 years, Grainews and Les Henry have shared ag research with farmers

BY JOHN MORRISS

Henry's 40 years of Grainews columns causes me to reflect on how most things have improved in Prairie agriculture, though a few haven't. I got my start as first field editor of Grainews in 1976, around the same time as Les started writing his columns. One of my first stories was on the proper incorporation of Avadex — twice at 90 degrees, with harrows. Avadex has had a second life recently, but the method of application has certainly improved.

What hasn't improved? The list is much shorter, but when Leeann said she wanted to have a page celebrating the value of extension, it reminded me that one item on my list is that the word seems to have almost disappeared lately. The Canadian Society of Extension, once an active forum for extending academic theory into farm practice, disbanded a few years ago. That decline in the use of the word coincided with — or was due to — a decline in public research, particularly at the federal level.

One of the reasons I became interested in agriculture was reading James Gray's *Men Against the Desert*, which described the origin of the PFRA and how government scientists literally saved western Canadian agriculture by teaching farmers new techniques to save and reclaim their soil. That was

extension — extending theory to practice — at its best.

It's not that there aren't some wonderful public and private agronomists out there today. But it seems that so much of the discussion these days focuses on yield. It's important, but there are other goals in farming, such as ensuring it's sustainable for the long term, especially by protecting the soil.

Les understands that very well. I searched through all his columns so far this year, and the word "yield" appears only three times. The words "soil" and "water" occur too many times to count. You often hear farmers say "There would be no food without farmers," but it's equally true that there would be no farmers without soil.

Grainews was an immediate hit in its early days, mainly because of founding publisher John Clark's insistence of the theme of being "written for farmers by farmers" — in other words, in language they can understand. With all due respect to academics, and again, there are many doing wonderful work today, I find that they are almost always great speakers at meetings. But when it comes to putting the same clear language on paper, they often revert to academic-ese.

Not Les, no doubt because he wears two hats — academic and farmer. So much of what he writes is about what happens on his own farm, and that he understands the relationship between theory and practice.

Les doesn't just help us understand anions and cations — he sometimes veers into other farm-related topics, including the book he wrote on catalogue houses. Those columns reassure me that there's still some life in the notion of "extension" and all it implies for the health of farms and farm families.

And not only are his columns clear and understandable, they're delivered on time — and have been for 40 years, which must be some kind of record. Editors have certainly appreciated that, I'm sure that readers have as well.

John Morris, associate publisher, Farm Business Communications, former Grainews editor.

TELLS IT LIKE IT IS

I would guess that Les Henry knows more farmers, has visited more farms and has spoken at more community halls in Saskatchewan than any other U of S professor... and no one else has written more columns in *Grainews*.

Les understands and appreciates the science of agriculture as well as the art and business of farming... and he knows how to connect all of these together in a timely, entertaining, understandable and memorable way.

Les's style is to tell it the way it is, as directly and simply as possible. For example, in a recent Grainews article on soil health, Les explained that a soil's water content at its "permanent wilt point" was when "the plants suck the water until the soil sucks back so hard the plants croak." Compare Les's definition to the official definition, which is"the largest water content of a soil at which indicator plants, growing in that soil, wilt and fail to recover when placed in a humid chamber. Often estimated by the water content at -1.5 MPa soil matric potential."

Which of these definitions will most people understand and remember?

Les is a great soil scientist and educator; he's also a wonderful person. I always look forward to reading his columns and meeting with him. Let's hope he never retires!

Don Flaten, Professor, Dept. of Soil Science, University of Manitoba

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			Morris		
egister	Seating is limited – register for a free		Tuesday, December 13, 1:15 p.m. Morris Multi-Plex		
today	learning ev	ent today gOutlook	J.P. Gervais Economy	Peter Legge Inspiration	Michelle Painchaud Managing People



INSPIRING STUDENTS

I wrote my fourth year thesis under Les. Les instilled that developments have to work in the field for farmers. He ran a small farm and that's what made him think that way.

When I took over my mom and dad's farm in 1986, I wanted to zero till. The research was telling us what to do, but nothing was really available to do it with. So we ended up building our own. Background information from university, from guys like Les and Don Rennie was really influential.

Any time I saw Les he'd come and compliment us on it. He even sent me a letter. It was quite nice to get a letter from your prof.

Pat Beaujot, founder and director strategic market development, Seed Hawk. Inc.

INSPIRATION TO RESEARCHERS

Les was and is an inspiration for me, and a mentor. I do a lot of extension, communication of my research results. One way is scientific papers, but it was my opinion rather early on, and Les helped instill this in me, that's it's really important to get out there and spread your research work directly to the farmers and the people of Saskatchewan. Really, what that means is the rubber hitting the road. Les really showed me the ropes in what was involved in getting out there and talking to people. Les instilled in me a desire to get out there and spread the word.

Jeff Schoenau, professor of soil science, University of Saskatchewan.

FLEXIBLE NURTURER

Over the 37 years that I've known Les, he always was a rock solid farmer and professional soil scientist, but he was flexible, not like hard pan.

Many of today's successful farmers had the benefit of his fertile mind in class, at meetings, and through seminars and research. Les nurtured young minds which have bloomed into today's top grain and forage producers. Thanks for your generous contribution to Western Canada's farming industry.

Andy Sirski, former Grainews editor, Grainews columnist.

EXTENSION TRAINING

Les has been a very prominent figure in prairie agriculture. Les was on my advisory committee and examination committee when I did my PhD at the U of S many years ago. Les made sure to constantly grill me on the practical applications my research would have. That has always stuck with me.

Ross McKenzie, retired research scientist, Grainews columnist.

WORKING WITH FELLOW SCIENTISTS

Les is very quick to compliment his fellow scientists, and his own work was always very, very practical. He's the kind of person that is always learning, looking and learning.

Plant pathologist leuan Evans, senior agri-Coach with AgriTrend, a division of Trimble.



J.P. Gervais FCC Vice-President and Chief Agricultural Economist

Learn how interest rates, farmland values, and domestic and international policies could impact your farm business this year.



Peter Gredig

Producer and Tech Expert

Peter explores the latest innovations and unlocks their potential advantages for managing your farm business.



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Peter Legge

Motivational Speaker

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Photo credit: Ron Sangha



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Dr. Joe Schwarcz

Director, McGill University Office for Science and Society

Dr. Joe tackles topics ranging from agricultural myths and facts to where he sees the future of the industry.





EXTENSION INSPIRATION

Les was always an excellent example of how to be effective at conducting extension. Three-quarters of it is being entertaining, but also, and just as important, is to be accurate and correct in your information, and he is certainly both.

Curtis Cavers, Agriculture and Agri-Food Canada agronomist.

PLAIN LANGUAGE

Les's "tell it like it is" or "tell it as I see it" approach to column writing suits *Grainews* perfectly. Even after leaving *Grainews*, I still contact Les if I need advice on an idea. He give straight answers, including, "You are spinning your wheels. Farmers pay no attention to such things," which is verbatim from a recent email.

I share links to Les's column through my @CanolaWatch Twitter handle. I remember one from a couple years ago on the connection between combine speed and canola harvest losses. Harvest was moving along well that fall so Les had some time on the combine to run a speed test. He slowed right down and compared the yield for ultra slow combining (something like one m.p.h.) versus normal speed. The difference shocked him. So he wrote about it. Fantastic! His blend of on-farm experience and hunger to keep testing new ideas is priceless. Thanks Les! Prairie agriculture needs a few more writers like you.

Jay Whetter, communication manager, Canola Council of Canada, former Grainews editor.

LES HENRY'S GRADUATE STUDENT

The years I spent as Les Henry's graduate student turned out to be a true highlight in my life. I found it very exciting to delve into the issue of soil salinity in an era when advancing technology in both the field and the laboratory was providing new opportunities to gain a better understanding of the problem. It was made all that much better to have a supervisor with a genuine desire for knowledge and who was willing to do whatever was needed to find answers.

When Les was writing his Handbook of Soil and Water he contacted me for permission to use some of his vast collection of photos in which I appeared. When I first looked through the book and saw those photos of my younger self, sprinkled in amongst the wide collection of information, I began to more fully appreciate the very rare and special privilege I had experienced while being a small part of Les Henry's vast legacy in the world of soil science.

Les' ongoing series of articles in *Grainews* is testament to his dedication to education and extension. His articles are a constant reminder that there is always more to learn.

Paul Bullock, professor and head, department of soil science, U of M.

» CONTINUED FROM PAGE 29

40 YEARS OF WRITING FOR GRAINEWS

to fill out and return. And return they did, in spades. Thanks again readers. But, I still have had no success in convincing soil biology types to get out and research earthworms in the field. We still do not know even who they are let alone what we need to do to see that they stick around. So sad!

March, 2013. "The truth about Lake Winnipeg." That piece was a lot of work. The bottom line is that 68 per cent of the phosphorus

in Lake Winnipeg comes from the Red River and a big chunk of that is from south of the 49th.

February 2014. "The beauty of the harvest." This was a lot of fun to do. After that, I received a CD from Murray Pask, Atwater, Sask., showing four old combines he restored. They had a family and neighbours combine day and had a lot of fun using the old dolls to rub out a few bushels of wheat. City slickers will never understand the thrill of "bringing in the sheaves." The equipment has changed a lot but the thrill of the chase is timeless.

March/April 2015. "New wrinkles on phosphorus." It has been

fun to see the changes in our thinking about P fertilization. Old rules that I had used are completely out the window and we now know we need to think in a longer time frame. In my defence, I have said for years that P is an investment in the land. Thanks to colleagues, we now have some numbers to put behind that statement.

THANK YOU, AND THE FUTURE

In my 37 years of scribbling on these pages there has been a long line of editors. John Clark, Roger Olson, Peter Perkins, Andy Sirski, Dave Bedard, Cory Bourdeaud'hui, Jay Whetter, Lyndsey Smith and now Leeann Minogue. I can honestly say that I have never had a serious disagreement with any of the editors and have always had complete freedom. Thanks to all who have fixed up my blunders and made it easier to read.

As well, the changes in ownership have been seamless from my vantage point. Never have I been told to remove or change anything because it may not fit with the thinking of the owners or advertisers. Freedom is what it is all about.

A sincere thank you to the readers and to the advertisers. Without them *Grainews* would not exist.

None of us know what the future holds. As long as I con-

tinue to receive feedback from readers, and *Grainews* does not kick me out, I will scribble for a bit yet. Hopefully I will know when time is up. The first priority for 2017 is to get an updated photo on the page. I hate to continue to mislead folks with the youthful photo that I have been reluctant to change.

J.L.(Les) Henry is a former professor and extension specialist at the University of Saskatchewan. He farms at Dundurn, Sask. He recently finished a second printing of "Henry's Handbook of Soil and Water," a book that mixes the basics and practical aspects of soil, fertilizer and farming. Les will cover the shipping and GST for "Grainews" readers. Simply send a cheque for \$50 to Henry Perspectives, 143 Tucker Cres, Saskatoon, Sask., S7H 3H7, and he will dispatch a signed book.







BY LEE HART

eef, dairy, poultry, vegetable, U-pick fruit, and diversified field crops are among the farming enterprises that will be featured in presentations later this month as nominees for Canada's Outstanding Young Farmers (OYF) award take centre stage in Niagara Falls, Ont.

Seven farm families from across Canada, all selected as regional OYF winners, will be presenting themselves and their farming operations to judges as they vie for national honours at the organization's 36th annual awards program at the Hilton Fallsview Hotel Nov. 30 to Dec. 4. Two winners are named to represent Eastern and Western Canada.

"We're thrilled to be able to showcase the beauty of our region at this years' national event," says regional chair Cory Van Groningen. "We want to invite everyone to come and take part in all that the Niagara region has to offer. We've included a variety of opportunities to explore the region and take advantage of this years' beautiful location." Van Groningen and his wife Heidi, beef producers from Cayuga, Ont. were 2012 regional winners now among OYF alumni.

Pre-registration is required to attend the OYF event — on the Dec. 2 program day forum/lunch/presentation are \$50 per person, awards gala are \$100 per person, a forum/lunch/presentations/awards gala are \$125 per person. Tickets can be ordered at www.oyfcanada.com.

Lee Hart is a field editor with Grainews based in Calgary. Contact him at 403-592-1964 or by email at lee@fbcpublishing.com.

OYF B.C./YUKON

Brian and Jewel Pauls

Brian and Jewel Pauls are second-generation regional OYF winners

BY GEOFF GEDDES

hen Frank and Elma
Pauls won the B.C./
Yukon Outstanding
Young Farmer
(OYF) award in 1990, young son
Brian thought how cool it would
be if he followed in their footsteps.

As it turns out, he did just that, and it's very cool indeed.

"I remember going through the process with dad and thinking it would be really sweet to be part of that program one day," says Brian Pauls. "We are the first-ever second generation regional winners in the OYF program, so that's pretty special."

Brian and his wife Jewel were recently named the 2016 B.C. & Yukon Outstanding Young Farmers. Based in Chilliwack, B.C., the couple runs a number of egg layer, broiler, turkey and field crop farms at the eastern end of the Fraser Valley and out of Saskatoon. While it might be described as a "multi-site business", Brian says the term is misleading.

"It sounds like a massive entity covering tens of thousands of acres," says Brian. "In fact, it's more akin to one big farm on several sites."

Still, it's an impressive operation, especially when you consider how it started.

"When my dad was 15, my grandfather had a serious car accident, so dad quit school to keep the farm going and help his mom."

Brian wound up working alongside his dad on the family farm before leaving to attend the University of British Columbia. Yet when his dad called and offered him a management role, he didn't hesitate.

"I had dreamt of farming my whole life, so I thought about it for two seconds and then told him I was coming home. I've been farming here ever since."



B.C. Outstanding Young Farmer nominees, Brian and Jewel Pauls and their four children: Janae, seven, Brooke, five, Faith, three, and Kaden, one.

REWARDING EXPERIENCE

And while they say that hard work is its own reward, trophies are nice too.

"I was surprised and relieved by the award. When you start farming you don't think 'hey I'm doing this for the trophy', but we've worked really hard and it's great to be acknowledged for that."

One reason for the Pauls' success is their focus on continual improvement.

"We recently built new facilities that are more technologically advanced," he says. "By install-

ing LED lights, high efficiency ventilation and the latest in computer controls, we've lowered our environmental impact and our costs while becoming more competitive."

They see that as a good start, but they aren't stopping there.

"This year we started growing hops and built a hops processing plant. We're also working to meet new consumer demands for specialty products like 'cage-free' and ensuring compliance with evolving animal care guidelines. As the marketplace changes, we need to change with it."

Dealing with changing demands

is hard enough; handling public misconceptions is even tougher.

"People think that what they see on TV or YouTube is true for the whole industry," he says. "In reality, our barns are clean and our animals are well cared for. To feed a growing population we have to be cost effective, but that doesn't mean we use added hormones and steroids or mistreat animals."

For Brian and Jewel, countering those false images of agriculture is critical.

"I think the trendy term these days is 'social license,'" says Brian. "In the end, it's about building relationships and earning trust." Of course, the most important relationship is with family, something Brian knows only too well.

He and Jewel have been married since 2007 and have four children: Janae, seven, Brooke, five, Faith, three, and Kaden, one.

"Success in business is a high priority, but my number one goal is teaching my children how to work, how to live and how to love farming."

Could there be a third generation award winner in the Pauls family?

Stay tuned...

Geoff Geddes is a freelance writer based in Edmonton, Alta.

Canada's Outstanding Young Farmers

OYF ALBERTA



Shane and Kristen Schooten

Starting young and working with family pays off for Shane and Kristen Schooten

BY GEOFF GEDDES

ore often than not, mixing family and business is like an ill-conceived blind date: awkward and hard to get out of. That's not the case for Shane and Kristen Schooten, recent winners of Alberta's Outstanding Young Farmer (OYF) award. They are living proof that you can survive and even thrive by blending family and finances.

For Shane, the family/business connection started early.

"I was farming with my dad, John, when I was old enough to walk," says Schooten.

He started feeding cattle when he was 14. Three years later, at an age where most boys are trying to master the latest video game, he bought his first John Deere self-propelled forage harvester and started a custom silaging business.

Following the BSE crisis of 2003, Shane and his brothers, Cody and Justin, assumed management of Schooten and Sons Custom Feedyard from their father.

Since buying out their dad in 2006, the brothers have been running the feedlot in Diamond City, Alberta with capacity to feed 36,000 head of cattle, as well as a custom farming operation consisting of 5,000 acres.

They also have a composting division that supplies golf courses and landscapers.

"We use a lot of the compost on our own land as it increases production by 10 to15 per cent," says Shane.

Shane and Kristen were surprised to be nominated for the OYF award by their bank and humbled to win it. They will compete for the national Outstanding Young Farmers title later this year in Niagara Falls, Ontario.

"For us it was confirmation that what we're doing is working," says Shane. "There aren't a lot of accolades out there for farming, and not many kids have the drive to enter the business. This award gives them something to strive for and a chance to be recognized for the hard work they do."

RETAIN AND SUSTAIN

Recognition is also something the Schootens emphasize with their staff.

"We have 35 full-time employees and we really value their opinions," says Shane. "By setting them up for success and giving them room to grow, we've attained close to 100 per cent employee retention over the last five years."

When it comes to growth as a company, they subscribe to the "tortoise and hare" philosophy: Slow but steady wins the race.



Alberta Outstanding Young Farmer nominees, Shane and Kristen Schooten and their children Gracen, five and Berkley, three.

"Our goal is controlled expansion where we have a balance between working in the business and on the business," says Shane. "It's an approach that should make us sustainable for decades to come."

The Schootens also take a "big picture" approach to agriculture as a whole, stressing the need to improve education for children and young parents.

"Many people today know little or nothing about where their food comes from," says Shane. "They need to realize that what we do is important, and that we care for our animals and land as much as we care for our own families."

For Shane, Kristen and Shane's brothers, it begins and ends with family.

"Our dad did so much to get things going and instilled the work ethic and values that we maintain to this day," says Shane.

Since they also have one brother (Mike) who is not in the farming business, they invested a lot of time and money in estate planning so that everyone was on the same page going forward.

"We had some hard conversations, but that effort is paying dividends now as we all know where we sit and everyone is happy," says Kristen. "Our farm is a large operation but it's still family driven." For Shane and Kristen, part of their commitment to family includes spending quality time with their two children. If mom and dad ever have a slow business day, which is rare, five-year-old Gracen and three-year-old Berkley make sure their parents are never bored.

They say you can choose your friends, but you can't choose your family. In other words, you must work with the cards you're dealt. In that regard, the Schootens feel like they have a winning hand, and they can't wait to see how it plays out.

Geoff Geddes is a freelance writer based in Edmonton, Alta.



OYF SASKATCHEWAN



Dan and Chelsea Erlandson

Growing vegetables for the local market is the key to success for Can and Chelsea Erlandson

BY SHIRLEY BYERS

eather wise, October had a dreadful start in Saskatchewan. There was rain and there was snow. And on October 11, forecasters were predicting night time temperatures to plummet to -7 C within days. Dan and Chelsea Erlandson, Saskatchewan's Outstanding Young Farmers for 2016, confessed they were a little worried about five acres of potato fingerlings still in the field.

"We need four hours of dry harvesting conditions to get those potatoes off and we just can't seem to get it," says Dan in a telephone interview from the couple's southwest Saskatchewan home near Outlook. "If it gets that cold they probably will freeze in the ground."

With a combined 22 years of experience in the vegetable growing business, the Erlandsons know Saskatchewan can get crappy weather. Accepting and dealing with the whims of Mother Nature are all part of the lifestyle they've chosen and wholeheartedly embrace.

Something else they know — Saskatchewan people love their locally grown veggies. There's a huge demand for their crops and a dearth of producers to fill that demand.

"I think that's probably been the major driver behind all of our expansions this year," Dan says. "We were basically approached by Co-op to grow local vegetables for them, because they had such demand in their stores. Rather than us pushing it on them, it was kind of pulled through their demand from their customers. They came looking for us which is kind of a unique situation."

The Erlanders' Spring Creek Garden farm, expanded into com-

PROFITS, WORLD-CLASS

BLACKLEG PROTECTION



Saskatchewan OYF regional nominees, Dan and Chelsea Erlandson and their children Calla, 4, and Raulan, 2.

they formed a partnership with Prairie Fresh Food Corporation and the Grocery People at Federated Co-op. Since then they've increased their growing area significantly. In 2015, their farm included about 150 acres of mixed vegetables, a few fruits and some greenhouse vegetables.

Their goal is to provide a local product for their customers and market it through as many avenues as possible. Along with their wholesaling commitments they also direct market produce through farmers markets in season — six days a week in Saskatoon and two days a week in Regina. And, for folks who can't get to those markets, they offer a Community Supported Agriculture mercial wholesaling in 2013 when (CSA) program. In-season produce can be delivered, 14 to 16 weeks of the year, directly to CSA customers' homes or work places. CSA boxes include garden staples such as potatoes, carrots, peas and beans and also less common nutrient factories such as kohlrabi, kale and Swiss chard.

ALWAYS SOME CHALLENGES

Every new farmer faces challenges and the Erlanders say they were no different. Financing and labour were two of the biggies. They still have to battle to obtain loans for their expansions and capital investments, they say, but the degree of difficulty in acquiring financing has decreased since forming a partnership with FCC.

Because large scale vegetable growing is still a relatively new venture in Saskatchewan there's no real background with banks in terms of the vegetable industry in Saskatchewan. "There's no numbers for them on growth, and what's going to happen as compared to big grain farmers," says Dan. "So basically, in Saskatchewan, we're able to provide that data to them. Now that we've shown that to them over a number of years, they're able to understand the business a bit better than they did before."

"It's a matter of confidence," Chelsea says. "It took a while for them to understand — we kinda had to plead our case."

With a labour-intensive farming

ROUNDUP READY CANOLA

operation, they've signed on with the Seasonal Agriculture Workers Program that allows them to source labour from Mexico. "There is a significant cost to the program, but it supplies us with an excellent work force," says Dan."

Along with a busy and expanding farming operation, the family is growing too. The Erlandsons' two children Calla, five, and Raulan, two, will be welcoming a new sibling in late November. To help manage family and the farm responsibilities, they have a nanny who comes to the house six days a week during the busy growing season, and on a reduced schedule the rest of the year.

Shirley Byers is a Saskatchewan-based



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Canada's Outstanding Young Farmers

OYF MANITOBA



Jason and Laura Kehler

A willingness to experiment brings success for Jason and Laura Kehler

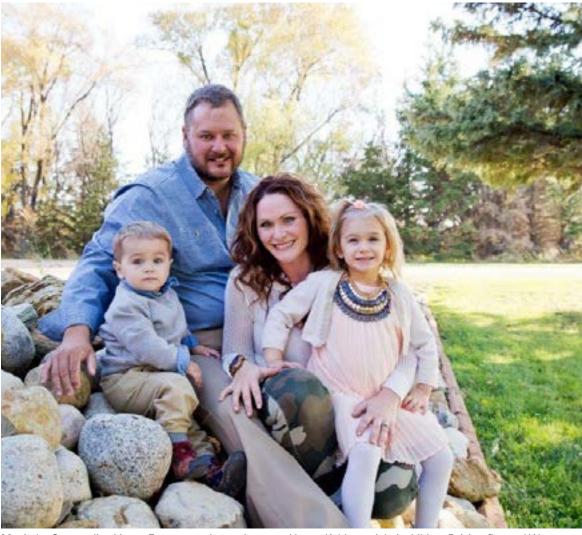
BY ANGELA LOVELL

ason and Laura Kehler aren't afraid to face new challenges and adopt innovative ideas, and that's helped them earn the title of Manitoba's 2016 Outstanding Young Farmers (OYF).

They grow four varieties of processing potatoes, seed soybeans, corn, canola, wheat, oats, soybeans and edible beans on the 5,600 acres near Carman that makes up Kehler Farms Ltd. Jason never wanted to be anything but a farmer, and after farming alongside his dad in his 20s, his dad made him a partner in the farm.

Laura grew up on a mixed livestock and grain farm in north east Ohio, and after earning her Bachelor's of Science degree in Animal Science and her Master of Science degree in Meat Science from Oklahoma State University she worked in the Agri-Food industry for 12 years. She met Jason and moved to Manitoba in 2008, and has been full-time on the farm since 2011.

The Kehlers have always had an open mind to new ideas and technology. They were the first in their area to adopt variable rate fertilizer, which has made a huge difference to their production. "We have a lot of topography and different soil types in our fields from light to moderately heavy, and could not get consistent quality in our potatoes," says Jason. "The variable rate fertilizer means we can apply the right rate of fertilizer to match the soil conditions. It has greatly improved



Manitoba Outstanding Young Farmer nominees, Jason and Laura Kehler and their children Paisley, five and Wyatt, two.

the quality and consistency of all our crops."

They hope to experiment with variable rate irrigation in the future to make more efficient use of water as they continue to add more potato acres.

The Kehlers have expanded

Honey

their total crop production by 48 per cent since 2013, including a 103 per cent growth in processing potato acres. It's the expansion of their potato business which they feel has had the biggest impact on the profitability of the farm."It has made us more efficient and

given us the revenue to do different things," says Jason. "Our combine costs are significantly down because they are doing more work over more acres. We have a full-time mechanic on staff now who keeps everything rolling, and make harvest so much better."

Jason and Laura have two young children — Paisley, five and Wyatt, two. Although it's too early to say for sure whether they'll want to farm some day, their parents are already thinking about how they can provide the best opportunity if they do. "We're young enough that we still want to take on exciting opportunities, whether it's new crops, or more potatoes or more land, but 10 years from now we want the farm to be in the position that if and when the kids are ready they can take over and have some financial stability," says Jason.

NOMINATION WAS AN HONOUR

The fact that their accountant nominated them for OYF is as much of an honour as winning the regional title. "He works with such top notch, progressive farmers every day that it really said a lot to us that our accountant had that kind of confidence in us and that he thought of us in that regard," says Laura, who adds the experience has been like adding a whole bunch of new family members.

"The highlight for me has been meeting all the awesome producers, and having the opportunity to represent agriculture in a positive light, which is something near and dear to my heart," says Jason. "There is such a small percentage of people in agriculture versus the urban population, and anytime we can help them better understand what we do that is a good thing and OYF certainly showcases the best, most progressive farmers."

Angela Lovell is a freelance writer based in Manitou, Manitoba.



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Canada's Outstanding Young Farmers

OYF ONTARIO



Adrian and Jodi Roelands

Learning to delegate is crucial to success for Adrian and Jodi Roelands

BY SHIRLEY BYERS

drian and Jodi Roelands, Ontario's Outstanding Young Farmers for 2016, established Roelands Plant Farms Inc., a propagation greenhouse, in 2013. Since then, they've doubled their capacity and were set to triple it by the end of October 2016.

On their farm near Forest, in southwestern Ontario, the couple custom grow premium cucumber, tomato and pepper seedlings for sale to vegetable production greenhouses. Roelands Plant Farms is one of only seven such operations in North America.

Greenhouse producers, in need of new seedlings contact them. "We do their planting," says Jodi during a telephone interview. "They tell us exactly what plant specifications they want; there are a lot of different varieties, lots of technical differences. They purchase the seed and have it shipped to us. The seeding day is set a given number of days prior to when seedlings need to be delivered. Plant care depends on what they want and the specs they request."

Computer technology figures heavily into Roelands operation. The entire facility is monitored, including all aspects of greenhouse climate such as heat, humidity and irrigation. The greenhouse management software, accessible from their computer and smart phones, sends an alarm if there's any operational change or change in climate conditions inside the greenhouse.

With a large staff, the Roelands have adopted a labour management program that monitors all activities and keeps track of the number of times certain tasks are performed, simplifying piece-rate payments and bonuses.

At the same time, making use of the increasing automation enables them as growers to produce high quality vegetables while keeping costs competitive.

The greenhouse operators expected to have 12 acres of growing space functioning by late October. They've also purchased a better, and more modern seeding machine and other equipment



Ontario's Outstanding Young Farmer nominees, Adrian and Jodi Roelands and their children Mia, 8, Arie, 6, Eva, 4, Theo, 3, and Ila.

that will enable them to automate certain jobs such as placing sticks in plant pots.

CHANGING MANAGEMENT ROLES

One challenge the couple has faced during their business life is regular shifting of their own job descriptions with the changing needs of the company.

When they first went into business Jodi took care of finances and administration. She did the hiring, payroll, wrote policies and handled all accounting. Adrian looked after general management, growing of the crop and daily organization of labour.

But, as the business has grown they've hired other professionals to take over most of those tasks. The Roelands have handed over middle management duties and moved themselves into overseeing positions.

"It's been quite a mind shift for us," says Jodi. "We both come from farms where you get in there alongside your staff and do the work. But we're learning that it's imperative for this size of the company to not to be the person on the forklift, but to delegate that job and work on the bigger picture."

The Roelands believe the "distance" in job responsibilities is crucial to the welfare of the busi-

ness. "Work *on* our business not *in* it," that's what we keep reminding each other," Jodi says.

The Roelands have put a lot of thought into every aspect of their business. What it is and how it fits into the rest of their lives is a basic element.

And there is life beyond the greenhouses. The Roelands children, Mia, eight; Arie, six; Eva, four; Theo, three and Ila, all do swimming lessons in the summer and the three oldest are involved in hockey (Arie) and ringette (Mia and Eva). "They often come to the greenhouse with us and they help out with little jobs and often play in the office while I work," says Jodi. "Even though they are still

pretty young, we try to involve them in our farm business related discussions whenever possible (financial, human resources, etc.) so they can start to build an understanding of what it take to run an agri-business.

"People talk about a factory farm versus a family farm — well, to me, this is our family farm," says Jodi. "It's a large scale farming operation but it is still owned by my husband and me, and our children are involved in it, as well. This is our version of a family farm. It's not what it looked like for my grandparents but it's today's family farm."

Shirley Byers is a Saskatchewan-based



Canada's Outstanding Young Farmers

OYF QUEBEC



Dominic Drapeau and Celia Neault

Dominic Drapeau and Celia Neault are part of a four-generation family farm

BY LEE HART

elying on the knowledge and advice of an expert team, strong family support, a well-planned goal, and a lot of hard work has helped a young southern Quebec couple build one of the most progressive and productive dairy farms in the province.

Dominic Drapeau and Celia Neault say it is a combination of these and other factors that have helped them achieve the success of their 625 head Holstein milking herd dairy at Sainte-Francoise, about 45 minutes from Drummondville. And it was a team effort that helped them earn recognition as the 2016 Quebec regional winners of Canada's Outstanding Young Farmers national competition.

Drapeau and Neault, and their young family, are part of the fourgeneration, family-named Drapeau & Belanger Farm. It is a dairy and cash cropping operation, where all generations are actively involved. Dominic was born and raised on the farm started by his grandfather Marcel Drapeau, who now at 86 still helps out where needed. And of course Dominic's parents Michel and Sylvie Drapeau are still very much involved in the dayto-day operation, which includes management of a 625 head milking herd and production on about 3,850 acres of mostly corn and soybean cash crops.

Neault, herself, wasn't a farm girl, growing up in the nearby city of Trois-Rivieres. She was pursuing a career in marketing, until she and Dominic met and married and she quickly transitioned to a new farming career.

Neault and Drapeau have drawn on a wide range of expert advice and newest technology to help them, particularly over the past dozen years, to develop the farm they have today.



Quebec OYF regional nominees Dominic Drapeau and Celia Neault and their four children —Kelly and Mavrick, 10-year-old twins, Alicia, nine and Liam, seven.

They themselves built a new 120' x 600' freestall barn in 2003 as part of a longer-term plan to expand the dairy operation. The development also included installation of a 36-head rotary milking parlour, where for the past 15 years cows have been milked three times a day. By 2006 they were milking 430 head, then by 2011 they were milking 530 head. With 625 head today, that have reached facility capacity. On the production side over the past 10 years milk production has increased from 8,295 litres per cow per day to 11,724 litres.

"One of the most important decisions we made was to develop a good team to work with us as we expanded the dairy operation," says Neault. "Along with family members our team also includes a close relationship with a herd veterinarian, and livestock nutritionist. And we also hired a good herd manager, who plays a key role in the proper care and management of dairy cattle.

"As we started this expansion we sat down and decided on our objectives, did our research, looked at other dairy farms, sought advice and then brought together the team to help us achieve those objectives."

TECHNOLOGY PUT TO USE

Technology helps in many ways. In the barn they use genomic testing on young animals, motion detectors for reproduction, a smart

scale on the mixer-feeder and temperature probes close to calving.

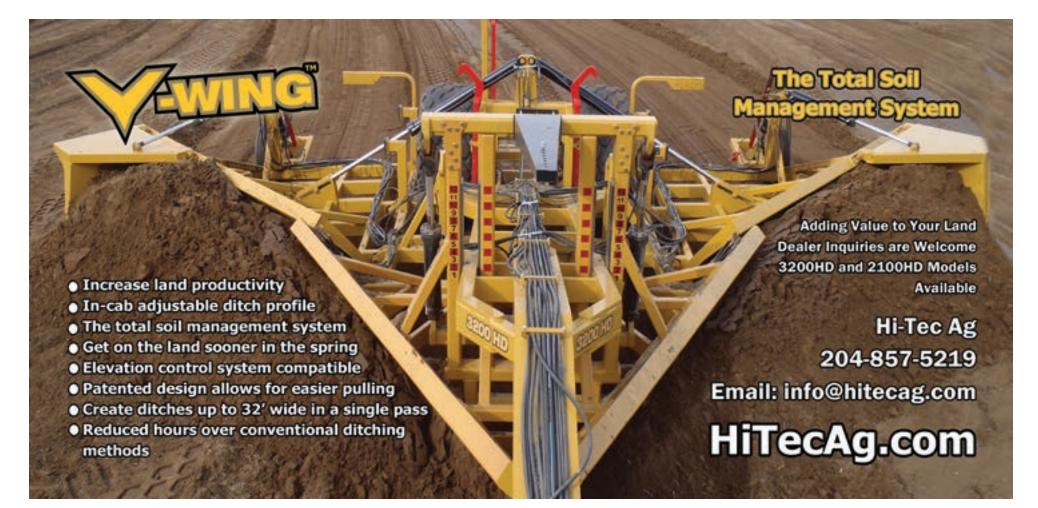
On the cropping side they produce corn for both grain and silage, soybeans, and some oats as well. The farm uses a satellite navigation system for levelling land, tile drainage, seeding, fertilizing and spraying. With these innovations over the last four years, they have enabled the farm to increase overall yields by five to 10 per cent each year.

And Drapeau and Neault aren't done yet. They are looking ahead to the next 20-year plan, which includes nearly tripling the milking herd to about 1,600 head.

"We will take it in steps as we go," says Neault. "We are pretty well at capacity now for the herd we are milking. Our future plans include building another barn and installing another 72-head rotary milking parlour. A lot will depend on quota, but we are always interested in buying more quota as it becomes available. And we are also interested in increasing our land base to produce more crops, but as land prices increase we have to consider the economics as well."

They're passion for agriculture is balanced with family time, as they raise their four children — Kelly and Mavrick, 10-year-old twins, Alicia, nine and Liam, seven. They are all involved in a wide range of activities which includes dancing, soccer, hockey and family gatherings.

Lee Hart is a field editor with Grainews based in Calgary. Contact him at 403-592-1964 or by email at lee@fbcpublishing.com



Canada's Outstanding Young Farmers

OYF ATLANTIC



Andrew and Jennifer Lovell

Marketing is key for Andrew and Jennifer Lovell's orchard operation

BY ANGELA LOVELL

ndrew and Jennifer Lovell have a flair for marketing, and it's helped them diversify and grow their first generation farm at Keswick Bridge, N.B. And it also helped them achieve the title of 2016 Outstanding Young Farmers (OYF) for the Atlantic Region.

The Lovells own and operate River View Orchards, which includes a U-pick operation for apples, pears, plums, strawberries, raspberries, pumpkins and other vegetables, as well as commercial apple orchards, and a fence and orchard trellis construction company. And for education, awareness and entertainment they also host school tours, farm-themed birthday parties, and offer wagon rides and operate a corn maze. Last year the farm hosted 1,400 kids. In 2016 they expected the numbers to top 2,000.

The expansion of the U-pick from its original 37 acres has contributed the most to the growth and success of the farm, says Andrew. "Growing the U-pick has allowed us to maintain stability and maximize revenue," he says. "Margin is significantly higher for fruit that is picked in comparison to fruit that is sold to packers. It's cut our cost of production because there is no labour expense or freight costs. It's also lengthened our season, and people are now coming several times a year when the different fruits and vegetables are ready." The farm sells the same amount of U-pick product in one day that it sold in a whole season when the Lovells purchased it in 2012.

In 2014, the Lovells experienced extreme damage from deer in their



Atlantic region Outstanding Young Farmer nominees Andrew and Jennifer Lovell and their children Robert, 11, and Elise, four.

orchard, which caused them to lose 50 per cent of their commercial apple revenue for the last two seasons. 2016 marks the year that the orchard is back to full production and will allow them to recover from a significant hit so early in their agriculture careers.

Neither Andrew nor Jennifer — who still works as a nurse full-time — grew up on a farm, but Andrew had wanted to be a farmer from the age of five. He began working on farms at age 12 and was a herdsman by age 18. After completing the Agriculture Technician program at New Brunswick Community College, Andrew ran

his own landscaping and cabinet making businesses, until he finally got the opportunity to buy a farm.

EFFECTIVE MARKETING, SOCIAL MEDIA

The Lovells use various marketing strategies, and have found that paid advertising on Facebook is among the most cost effective and successful."We wanted to provide families with a farm experience and our target market is women between the ages of 27 and 45, many of whom are moms with kids between the ages of two to 12. Those are the ages

that love to come to our farm," says Andrew. "Our Facebook page allows us to target those demographics and pick which communities we want to boost our posts to. It's worked huge for us." The farm gets as many as 140,000 page views per week and has 5,700 followers.

The Lovells plan to continue to grow and prepare for the next generation — Robert, 11 and Elise, four — who they hope will want to take over the farm one day. Over the next five years they want to expand their commercial orchards by 10 acres a year, and double pumpkin and squash

production in 2017. They'll continue to enhance the farm experience for kids and families with maybe a play structure or bouncy castles.

Winning OYF was a huge and unexpected honour, says Andrew and is a rewarding experience largely because of the new friends they have made. "You are in the company of a group of producers that are your peers but at the same time they can become your mentors and the camaraderie is quite unbelievable," he says. "The people are definitely the best part."

Angela Lovell is a freelance writer based in Manitou, Manitoba.



Machinery & Shop

SEEDING INNOVATIONS

A look behind the scenes

Grainews was invited into the SeedMaster R&D shop



Norbert Beaujot, president of SeedMaster, explains a test procedure inside the company's R&D shop.

BY SCOTT GARVEY

he seeding equipment industry saw a flood of innovations come to market in recent years when farm commodity prices were hitting all-time highs. But this season, many brand exhibits at ag shows seemed pretty tame compared to what was on display two or three years ago. Some companies had a few new features to show, some had none at all other than minor tweaks to their equipment. SeedMaster, however, was one of a couple of brands that bucked that trend. It had a lot to show and talk about at its display during Canada's Farm Progress Show in Regina in June.

In early August, *Grainews* was invited to SeedMaster's plant outside Regina to take a closer look at those innovations and talk with senior management about them. We were also invited into the plant's R&D shop to take a look at the research that led to those new introductions, and I was able talk with engineers about their evolution. So in this issue, the Machinery and Shop section takes a detailed look at the new SeedMaster products.

And during the trip through the R&D shop, the Grainews video camera was rolling. For a video look at some of the research behind those features — and the features, themselves — go to grainews.ca, and click on the e-QuipTV tab under the "videos" link.

Scott Garvey is machinery editor for Grainews. Contract him at Scott.Garvey@fbcpublishing.com.

SEEDING INNOVATIONS

XeedSystem and "tuneable" towers improve distribution

New features even out product delivery on SeedMaster Nova cart bulk metering system

BY SCOTT GARVEY

alking through the SeedMaster R&D shop, company president Norbert Beaujot stops beside a group of distribution towers that includes one of his company's along with some competing models currently on the market. He explains the testing work company engineers have done on them to determine how well they distribute product to openers.

"The thing we found with everybody's towers, they're so unpredictable," he said, as he walked up to one of the test stands and moved one of the seed tubes up and down. "If this hose happens to go up a little bit, it will get less seed going through it than the one beside it going down. So many of those things you just can't control. It's great that it's nice and flexible, but it changes the metering characteristics in a big way."

"We were holding the hoses higher or lower and tilting the manifolds 10 degrees and analyzing it," he continued, explaining the various testing steps. "The standard manifold system can easily vary 25 to 30 per cent."

Those tests identified problems Beaujot says are inherent in the distribution tower concept used by all brands. Put simply, there can be a lot of variation in how much seed goes into one opener run compared to others on the same tower. However, he notes the end result of understanding the amount of variation that occurs and knowing what factors influence it led to the creation of SeedMaster's new "tuneable" distribution towers.

But because there are so many subtle changes that can cause big variations, adjustable towers are only useful if an operator knows in real time how the flow of product through them is dividing. Adopting the digital XeedSystem flow monitoring technology from Hungarian tech firm Digitroll provides that data to an operator, and paring those two features together made the tuneable towers a viable option the brand will offer on its 2017 model year drills.

The XeedSystem flow monitoring system gives an operator exact, real time data that can show if the division of product flow through a distribution tower is reasonably

even or needs correction. If the level of variation is too high, operators can quickly adjust airflow through the individual towers to match conditions.

"For a number of years now SeedMaster has been seeking out the best product for a blockage detection system," says Research Farm manager Own Kinch. "What we have now is not just a blockage detection system, but a flow monitoring system."

"It (XeedSystem) actually has the ability to count individual granules to an extremely high level of accuracy," he adds. "Ninetyeight to 99 per cent. That's for any seed from something small in size like canola to something very large like a faba bean. What that has done is give us access to some very powerful information, real time, live inside the tractor cab.'

The company has actually gone so far as to manually check that XeedSystem really has that much accuracy, even on small-seed grains, Beaujot said.

In the tractor cab, operators can select from a couple of display options on the monitor. "You can have it display different views," Kinch continues. "You can have it in a bar graph format that is updated second by second in real time. Or you can have it on a seed count feature."

Based on that information, the tuneable distribution towers, which were developed in SeedMaster's R&D shop, can be fine tuned using either of two separate adjustment features.

"It has a removable top and there are two methods of causing an interference to air flow to ultimately reduce that flow deviation to more acceptable numbers," Kinch says. "There is a centre mass-flow adjustment. That's particularly useful where you have multiple runs side by side that are either high or low. And then there are individual pin adjustments (for each run).

Making those changes can bring down the variation in row-to-row distribution to what the company considers a more acceptable level.

"We've taken the bulk metering system from a (standard) 25 per cent variance down to less than 10," says Trent Meyer, the company's sales and marketing director.

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"Tuneable" distribution towers are a key feature made possible by adopting the new XeedSystem flow monitoring system.



A monitor in the tractor cab keeps the operator updated on product flow and distribution.

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SEEDING INNOVATIONS

Flex fertilizer applicator expands use of Nova carts

BY SCOTT GARVEY

ith more and more farmers looking to apply fertilizer blends other than during seeding, spreader boxes and floaters are garnering more interest in the marketplace. But SeedMaster engineers think they have developed a product that allows producers to do that job without making another relatively large machinery investment.

The brand introduced its Nova Flex applicator earlier this year, which allows the Nova SmartCart to do double duty. The applicator bar hooks up to any Nova air cart just as a regular air drill does and can fall apply or top dress granular fertilizer.

"The Nova Flex fertilizer and nutrient applicator really came out of the idea that people were sinking \$300,00 plus into floaters, when they already have a highly accurate, highly technologically advanced metering system and holding tank in their yard," says Trent Meyer, director of sales and marketing at SeedMaster. "They already have the power to pull it. Why are we going out and spending money on another engine and everything else to take care of."

"What it allows you to do is time your fertilizer application, if you chose not to apply 100 per cent at seeding. With new products coming out from the fertilizer companies, this really is a cost-effective way of utilizing the assets we have on the farm."

Connected to a Nova cart the Flex applicator is capable of delivering 350 pounds of product at working speeds up to 10 m.p.h. And the Zone Control feature of the Nova carts allows for up to 10 zones to reduce application overlap.

"For a lot of floaters, if they have any zone control, it's half width and they're not blending," he adds. "Not everyone's going to apply multiple products at the same time, but at the end of the day there is the opportunity to do that (with the Flex)."

Inside the tractor cab, operators use the same monitor, so they don't have to learn to use yet another system.

The Flex applicator bar is available in a 70-foot working width and in a trailing or tow-between configuration to match both models of Nova carts. "We tested it in the field in the spring and it's really, really durable, stable and easy to run," he adds.

Trailing versions of the Flex retail for about \$45,000, while tow-between models sell for around \$60,000. These types need heavier hitch and frame to support the cart, so that accounts for the price difference.

"We really believe we're providing a strong value to the farmer," says Meyer.

Scott Garvey is machinery editor for Grainews. Contact him at Scott.Garvey@fbcpublishing.com.





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SEEDING INNOVATIONS



SeedMaster updates the UltraPro meter

The UltraPro II on-frame meter is slated for production on 2017 model year drills

BY SCOTT GARVEY

Ithough SeedMaster's Nova SmartCarts offer a typical bulk metering system using distribution towers to get product to drill openers, the brand's president and founder Norbert Beaujot is a fan of Individual row metering when it comes to placing seed.

Individual row metering significantly reduces the variability in product flow that occurs with bulk metering systems when product is forced to divide in distribution towers mounted on the drill frame, according to Beaujot. "With individual row metering you know that if you put a seed into one end of a 50-foot hose,

it's going to come out of the other end," he said. "Whereas on a bulk system you're putting a bunch of product through a 2-/12 inch hose and you hope it divides reasonably at the end. There's a big difference."

For about the last six years the brand's UltraPro on-frame meter has offered customers an individual row metering option. Now, an updated version of that system, the UltraPro II, will soon enter production for 2017 model year drills. The company claims that meter will offer all the same capabilities as the previous version but with a higher throughput and some updated features.

SeedMaster displayed a prototype mock up of the UltraPro II





at Canada's Farm Progress Show in Regina in June, but some final design being ironed out at that time. By early August, the new metering system was almost ready to begin production.

"We're into the final development stages of getting this product into the market," said SeedMaster engineer Daniel Michaluk, during *Grainews*' visit to the company's Regina factory in early August. "It's gone through a few iterations already and we're at a stage where we're pretty happy with how it's performing. We've done a lot of field testing and we're doing some bench testing to finalize some of the roller shapes."

The company wanted to improve upon the original UltraPro design and broaden its ability to handle other granular products, such as inoculants.

"Using that same (metering) concept for other products has been the objective," confirmed Daniel. "It has many advantages over our last on-frame metering system. It's a two-meter setup and both meters feed into a common venturi block."

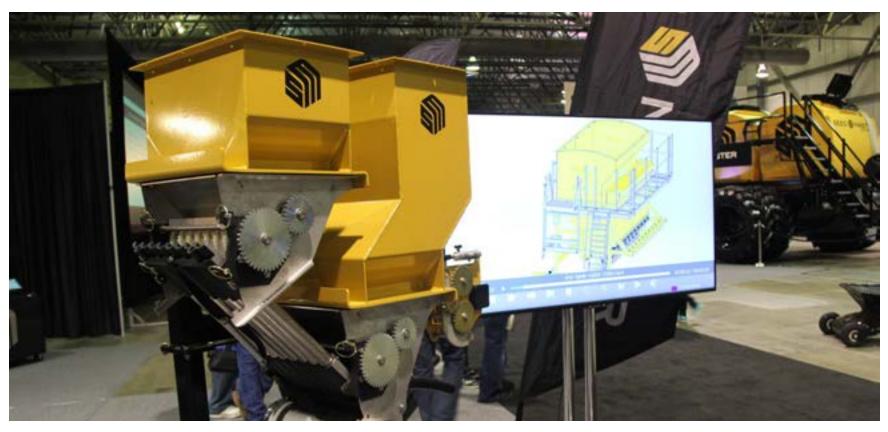
"We see this model being fairly attractive to the pulse grower, because we're handling seed very, very gently and precisely and we're able to put it down the row very easily," said Cory Beaujot, marketing and communication manger. "And we're able to meter granular innoculant into that same air stream in an uncomplicated way to ensure that same seed is getting treated appropriately."

The first production model will get a 40 bushel small product tank and a 320 bushel main compartment. It will use interchangeable metering rollers designed for specific products. And product will flow through a larger venturi that is capable of handling more product without plugging.

"We went right back to the basics" added Norbert. "We had limitations before in the quantity of product we could put through the venturi system. So we designed it right from scratch so we could put the bigger peas and beans through it at high rates. We made the overall throat of everything at least 25 per cent larger than it was before."

In addition, the UltraPro II will make things a little simpler for operators. It will be easier to change rollers, clean out product tanks and do catch tests.





Right: On display during Canada's Farm Progress Show in Regina, a mock up of the new meter design stands beside a computer CAD image that shows what a full-scale version will look like.

Left: Company president Norbert Beaujot demonstrates the ease of making adjustments on a mock up of the new UltraPro II seed meter in the company's R&D shop.

Because it offers a high level of accuracy, the company envisions farmers using the UltraPro II on-frame meter to handle seed and allowing the Nova carts to handle fertilizer blends through their bulk metering systems as the best combination. The two can now be paired even more closely, because the UltraPro II's design makes a better match with the overlap control system used by the Nova carts.

"With our original Valmar design, we were limited to what they were able to produce for us," added Cory. "And that let us have up to five zones of overlap control on our frame-mounted tanks. This lets us have up to 10, the same as our Nova. It matches up perfectly."

With the high cost of some seed Norbert sees the UltraPro II's ability to meter individual rows as a key cost saver for farmers.

"I think what most farmers do is overcompensate on (seed) quantity to make sure it doesn't impact their yields," he says. "So they're wasting money on seed. It's a cost saving. It doesn't take much to be throwing away \$15 per acre on seed. Since we've had the UltraPro on the market, most of our growers have gone from the historic five pounds per acre to three. Three to 3-1/2 is the standard for our customers now."

"One of the toughest things in the air drill or any seeding or fertilizer application business is the input companies will come up with a new product, and they test it in a plot seeder to make sure it actually works," said Trent Meyer, the brand's sales and marketing director. "But we don't get a heads up that next spring there's a new product that meters differently and it's coming out, but we get the first call when it can't be metered. By going to the individual row metering, we really eliminate all of that, because a lot of the problem around that comes in with caking and dust in a pressurized environment. And the venturi isn't a pressurized environment. So it allows for a smooth metering flow. It's friendly to a multitude of products."

"We've taken the bulk metering system from a 25 per cent variance down to less than 10 (on the Nova carts). And now with the UltraPro II we're down to less than two."

Scott Garvev is machinery editor for Grainews. Contact him at Scott.Garvey@fbcpublishing.com. POUNDS FOOLISH, PENNY WISE.

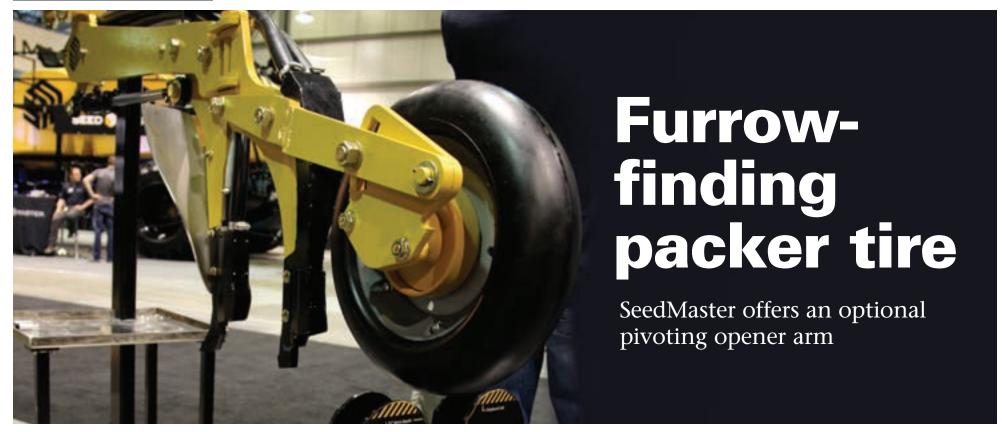


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SEEDING INNOVATIONS







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A pivot point in the opener arm allows the packer wheel to settle into the proper position in the seed trench, even when making turns in the field.

BY SCOTT GARVEY

etting good seed-to-soil contact is critical in ensuring a high germination rate when seeding. On most air drills with independent row openers, the job of ensuring that contact happens falls to the trailing packer wheel. But there are some conditions which can cause a fixed packer wheel to run slightly off the seed row, such as in corners, according to Norbert Beaujot, president of SeedMaster.

To eliminate that problem on its drills, SeedMaster has introduced a new optional pivoting arm design that allows the packer wheel to trail naturally in the seedrow trench.

"Instead of trying to figure out that exact lateral location, we've added a pivot to the arm that allows the packer wheel to continue follow that best location within the breakout pattern," he explained. "Even on moderate curves, as the furrows don't follow a straight line with the tractor, you'll see it continually adjust."

"In hard soils it's particularly important, because it doesn't take much of a shoulder, if the packer wheel is riding on that shoulder, it's not going to dent down and pack the seed properly."

The pivoting opener arm can be ordered as an option on drills for the 2017 season.

Scott Garvey is machinery editor for Grainews. Contact him at Scott.Garvey@fbcpublishing.com. **SEEDING TECHNOLOGY**



Bourgault offers smaller TransFold drill

An 80-foot, centre-folding model joins the 100-foot version introduced in 2015

BY SCOTT GARVEY

his is what we call the little brother to the 100foot we released last year," said Rob Fagnou, marketing specialist at Bourgault, as he stood beside the brand's new 80-foot, centre-folding 3420 paralink hoe drill during Canada's Farm Progress Show in June.

"The demand for the 80-foot was strong with this type of folding system in a drill," he continued. "So right away we were in design mode, testing the 80-foot. Really, the design is very similar to the 100-foot. It has the identical fold system and transports at the same size."

Bourgault debuted the first, centre-folding version in a 100-foot working width at the same farm show in 2015. With the centre-fold concept, both wings fold back from a middle pivot, so the drills can squeeze down to just over 18 feet wide and 16 feet tall.

It's that transport ease that Fagnou says has spurred demand from customers. Along with the relatively narrow folded width, a steering feature on the back four sets of wheels makes the drill easier to get around narrow field approaches and other tight corners. The operator can adjust their direction through the drill's X30 controller.

The design was originally the brainchild of engineer Terry Friggstad. "(In 2012) that's when Terry approached Bourgault Industries with folding concept," Fagnou said. It took some further engineering work and a couple of years of field trials before Bourgault was ready to introduce the resulting TransFold design on the 100foot version.

Now, both the 80-and 100-foot drills are available in Bourgault's QDC and XTA configurations with a choice of either 10 or 12-inch row spacings. They can also be ordered with or without mid-row banders.

"I think that's what's unique when you get to this size of a drill, not just the folding, but we sell it with 10- and 12-inch row spacing and with or without mid-row banders," Fagnou

The brand also used the show to introduce a new feature on its 7000 Series air carts.

"We had some demand from farmers who had the saddle tank and wanted to be able to fill it with the conveyor or the auger," said Fagnou. "Some guys were saying, depending on what they were seeding, sometimes the tank was sitting there not being used. So they were filling it up with wheat, let's say, adjusting rates and stretching out fill times a little."

So now saddle tanks on the 7000 Series carts can fill directly from the conveyor.

"The designers did come up with a fairly simple idea," he added. "But it did take some testing for positioning and all that."





Right: An optional feature on Bourgault's 7000 Series carts allows for filling the saddle tank with the cart's loading convevor or auger.

Left:

The model 3420 centre-folding TransFold drill design from Bourgault is now available in a smaller 80-foot working



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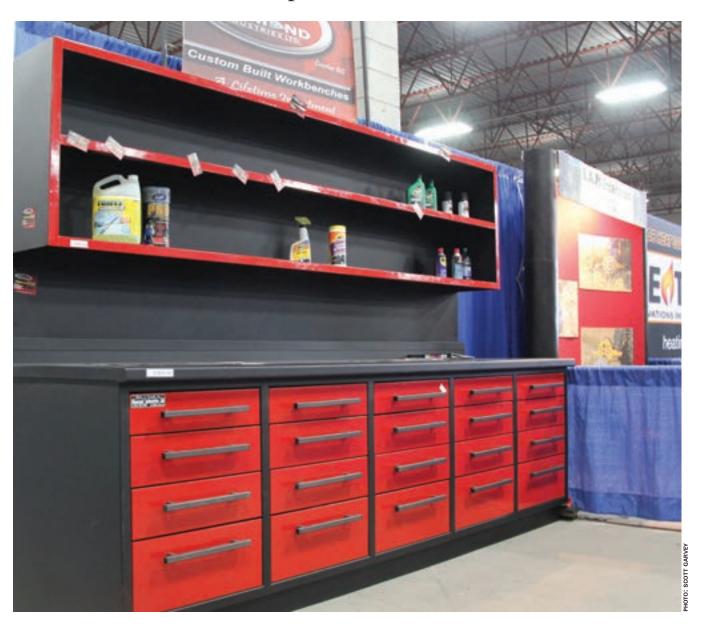
BY SCOTT GARVEY

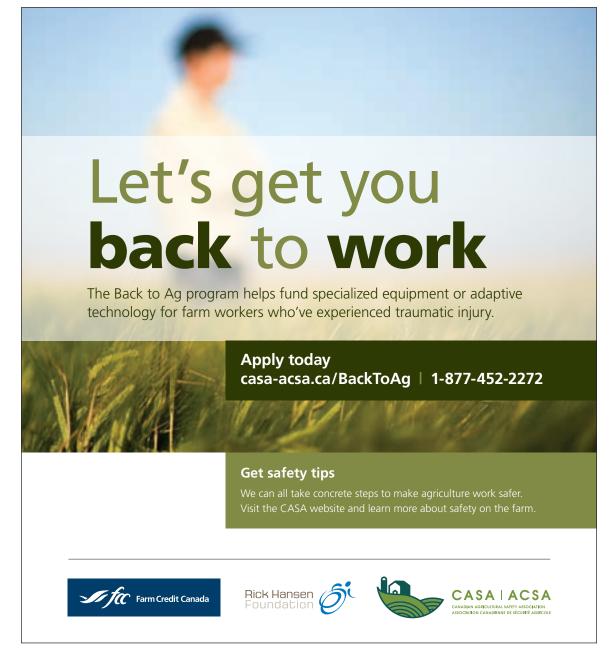
t goes without saying, every farm workshop needs a good workbench with lots of counter space to mount vices and work on repairs. You could spend several days building a customized bench and storage shelves to fit a shop and save a few bucks. That's a great option if you have the time, tools and skills to do it. But if you don't, there is another choice.

Displaying an example of the company's standard 10-foot workbench with drawers and upper cabinets at Canada's Farm Progress Show in Regina in June, Diamond Industries of B.C. offers made-to-order benches and cabinets. They also build standard models that could be made to fit most shops. Standard workbenches are available in six, eight, 10 and 16 foot lengths. They retail for \$300 per foot. The upper shelving units, which include two shelves, cost \$100 per foot. Drawers are made from 16 gauge metal with the counter tops constructed of 1/8-inch steel. Wooden 2x10 backing improves the mounting ability of the counter top for attaching things like vices. The drawers each ride on four roller bearings for smooth opening and closing. To prove the drawers are sturdy and can handle almost anything you'd ever put in them, a company rep opened the bottom drawer and stood in it during *Grainews'* visit to the booth. The drawer easily handled his weight. For more information visit the company's website www.diamondindustries.com.

Scott Garvey is machinery editor for Grainews. Contact him at Scott.Garvey@fbcpublishing.com.

On display during Canada's Farm Progress Show, Diamond Industries of B.C. showed one of their standard 10-foot workbenches and wall shelving units.









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KLASSEN MARKETS



Producers hit with 'sticker shock'

Bottom of the market may be in sight in mid-2017



JERRY KLASSEN MARKET UPDATE

here was an old saying on the trading floor — "Up the mountain; down the mountain." After extreme highs; traders need to prepare for extreme lows. Earlier in summer, I thought the cattle markets would start to stabilize and maybe turn around in October. However, I have to eat my words because as of mid-October, fed and feeder markets continue to trend lower.

U.S. beef production has exceeded earlier projections and demand has been stagnating. Alberta packers were buying fed cattle in the range of \$128 to \$131 in late October, which was the lowest since December of 2013. At the same time, U.S. fed cattle were trading in the range of US\$95 to U.S.\$99. The last time prices were this low in the U.S. was 2010.

After nearly 14 months of negative margins, feedlot operators are extremely risk-averse and replacements need to be bought accordingly. The market is in a period where the eyes begin to draw straws. Auction barns in central

Alberta had 800-pound steers selling around \$170 while 550-pound steers were quoted in the range of \$175 to \$180. I've received many calls asking "where is the bottom of this mountain?" Cow-calf producers are experiencing sticker shock as the large dose of reality sets in.

U.S. PRODUCTION WAY UP

The 2015 U.S. calf crop was 800,000 head above 2014 and we're likely going to see the 2016 calf crop finish nearly one million head above last year. U.S. cattle-on-feed inventories have been running one to two per cent above year-ago levels and we now find feedlot numbers the highest levels in three years. Placements in August were up nearly 15 per cent, which shouldn't be a surprise. The industry is bracing for sharp year-over-year placement increases on subsequent reports.

The USDA increased its 2016 fourth-quarter beef production to 6.4 billion pounds, a year-over-year increase of 300 million pounds. In the first quarter of 2017, beef production is estimated at 6.1 billion pounds; however, second-quarter production could reach 6.5 billion pounds (relatively the same as in 2013). If you look at pork numbers too, overall red meat supplies

U.S. QUARTERLY BEEF PRODUCTION							
Quarter	2013	2014	2015	Est. 2016	Est. 2017		
1	6,172	5,868	5,664	5,935	6,130		
2	6,517	6,183	5,857	6,187	6,470		
3	6,608	6,179	6,068	6,445	6,670		
4	6,420	6,021	6,109	6,400	6,610		
Total	25,717	24,251	23,698	24,967	25,880		

could surge by a total of two billion pounds in 2017.

In Canada, year-to-date beef production for the week ending October 8 was running 11 per cent above year-ago levels or about 80,000 mt. Year-to-date beef and veal exports to the U.S. for the week ending August 31 were up 16 per cent or about 25,000 mt over last year. The market is functioning to encourage demand through lower prices.

BEEF DEMAND NEAR SATURATION

It's typical that retailers react slowly to declining prices but recent data is surprising. U.S. ground beef was selling on average for US\$3.66/pound, the lowest since March of 2014. However, higher-end cuts remained near historical highs throughout the first half of 2016 and only started to ease in late sum-

mer. U.S. at-home food spending is running 4.8 per cent above year-ago levels while away-from-home food spending is up 7.8 per cent.

Beef demand appears to have reached a saturation point. Unemployment rates are near long-term lows and consumer confidence remains strong. Home appreciation has occurred on both sides of the border, but consumer debt levels are relatively high, especially in Canada. We are not seeing the strong seasonal swings as in past years.

The feeder cattle market has moved in line with fed cattle prices. Southern Alberta barley prices are off nearly \$50/mt from last fall but the total costs per pound gain are only off about 10 cents a pound. It appears that the actual feed inputs are making a smaller portion of the overall costs of feeding cattle with factors such as labour making up a larger percentage. Cow-calf

producers have delayed marketings this fall partially due to the adverse weather. I expect a sharper year-over-year increase in feeder numbers that will have to come on steam before the end of the year.

The feeder market in Western Canada continues to digest the Western Feedlots' announcement to halt operations. I've mentioned to producers that this is a "black swan variable" that no one could forecast. Is this the tip of the iceberg or is this the case where if they could have hung on another month, the market would have turned around? I've seen many traders throw in the towel because they couldn't make that last margin call, only to find out that was the absolute low of the market. To put prices in perspective, the June 2017 live cattle contract is within \$14 of the 2009 recession lows. This may be the bottom of the mountain we've been looking for.

Jerry Klassen is manager of the Canadian office for Swiss-based grain trader GAP SA Grains and Products Ltd. He is also president and founder of Resilient Capital, a specialist in commodity futures trading and commodity market analysis. Aside from owning farmland in Manitoba and Saskatchewan, he's a University of Alberta graduate who grew up on a mixed farm feedlot operation in Southern Alberta, which keeps him close to the grassroots of grain and cattle production. He can be reached at 204 504 8339.

BETTER BUNKS AND PASTURES

Preconditioning calves still pays this fall

Pencil out the costs and consider other marketing benefits as well



PETER VITTI

he weaned calf market reached a peak in the fall of 2014. Since then, mixed with lots of volatility, the value of weaned calves this fall is roughly half that nearly two years ago. Many cow-calf producers who sell weaned calves to feedlots are asking if preconditioning calves is really worth it.

Yes, I believe it's still profitable, especially in today's bear market, because it adds more value to a saleable product, which traditionally attracts cattle buyers. Such preconditioning value is locked up by feedlot-destined calves that have been vaccinated, castrated, dehorned, low-stress weaned, has some feed bunk/waterer experience and have been fed a nutritious post-weaning diet for at least 45 days.

I find that much of this value can be illustrated on a three-P approach — practical benefits, profitable economics and positive experience.

Practical benefit can be realized almost immediately. This first P allows producers to sell more live-weight pounds of calf after preconditioning, rather

MARKET VALUES USED, WHERE APPLICABLE; AND 4. GRADUATED BODYWEIGHT DISCOUNT OF \$10/CWT.

	Truck weaned calves	Preconditioned 45-day calves
Liveweight (lbs)	600	690
Shrink (%)	8	4
Saleable Weight (lbs)	552	662
Selling price (\$/lb)	1.70	1.60
Price premium (\$/cwt)	0	8.0
Final selling price (\$/lb)	1.70	1.68
Precondition costs (\$)	0	88
Gross Revenue (\$)	938.40	1112.16
Net value (\$)	938.40	1024.16
Value due to preconditioning (\$ per calf)	0	85.76

*current financial status is based on time of writing (author)The final profit in this case

than selling lighter off-the-cowweaned calves. For example, preconditioning calves that graduate from a 45-day post-weaning feed and management program are geared to gain two pounds per day or about 90 lbs. more marketable weight. Given today's feeder prices, the gross revenue for these heavier calves range from \$140-160 per head.

TRUCK-WEANING COSTS

Another practical benefit can be acquired through low-stress weaning of preconditioned calves. These humane methods of weaning calves include complete separation (on-farm), fence-lining weaning and two-step weaning. In contrast, many calves that are not preconditioned are often "truck weaned" as a low-cost management option.

Available research data has proven that many of these truck-weaned calves never fully recover and tend to cost feedlot operators about \$25 to \$125 per sick calf due to treatment costs, loss of feedlot performance and higher feedlot deaths. Some university extension studies also have estimated that non-conditioned calves such as "truck-weaned" calves will shrink between 10 to 15 per cent enroute to feedlot, while preconditioned calves will shrink only one-half as much.

Some producers and truckers who raise and transport humanely wean calves in autumn have expressed to me the economic benefit of preconditioning programs is inadequate. Their opinion cites an Alberta study (2012) that showed preconditioned calf sales garner an \$8/cwt premium per spring calf by cattle buyers, but this extra \$50 per 600-lb. calves (\$8 x 600 lb./100) doesn't often cover the extra costs of preconditioning. They say this bonus is narrower during wide price variations due to heavier weight discounts and market seasonality.

I disagree. For 2016, I present the following profitable preconditioning spreadsheet of profitable economics.

This table illustrates the current financial status of truck-weaned calves compared to preconditioned calves reared on a 45-day post-weaning feeding program (gaining two pounds per head, daily).

Other preconditioned parameters include:

- 1. Premium is paid at \$8 per cwt;
- 2. Feed (forage, grain, mineral), health (vaccination, deworming, parasite), and yardage
- 3. Current market values used, where applicable; and
- 4. Graduated bodyweight discount of \$10/cwt.

The final profit in this case is about \$86 per preconditioned calf or about 97 per cent ROI (return on investment). Even if we eliminated the shrink factor (re: calves were shipped to a dry lot 25 km, away); a \$51 per head would still be realized. In either case, this is evidence that extra revenue and profit can be drawn out from putting calves on a preconditioning program.

Regardless of its profitability, one person that believes in preconditioning weaned calves is

» CONTINUED ON PAGE 53



More thoughts on market options

You may not need a price premium to see benefits of preconditioned calves

BY LEE HART

arket analyst Jerry Klassen in his column this month isn't painting a very bright cattle price outlook picture heading into this winter and early into 2017.

An oversupply of beef in the U.S. and Canada is holding prices down. And of course those pork guys continue to push more product out the door — a lot of competition for the protein dollar. Did you catch that number in Klassen's column — beef and pork meat supplies are expected to be two BILLION pounds higher in 2017 compared to 2013 — that's a lot of bacon cheeseburgers. There are some reduced meat prices at the retail level, but generally premium cuts of meat are holding their value. Consumer spending is at or near

It takes a while for the beef industry in particular to respond to market signals, so there is no immediate relief in sight.

Klassen describes it as "sticker shock" for cow-calf producers heading to auctions this fall and seeing lower prices offered for calves. Buyers aren't very inter-



These southern Saskatchewan calves might be good candidates for preconditioning or backgrounding this fall.

ested in buying or as Klassen says "eyes begin to draw straws."

And it will probably be a tough few months ahead again for feedlots. Western Feedlots perhaps shouldn't have rushed to buy cattle about a year ago. The largest feeder in southern Alberta, by all accounts a pretty well-run business, decided this past summer it was closing shop after 60 years. That sent a clear message about what happens to a cattle feeder that loses money for too long with little relief in sight.

Not knowing much about the feeder industry, I asked a market expert about the basic economics of not only a 100,000-head operation like Western, but for feedlots in general.

It's pretty simple. If a feedlot buys a 600-pound steer at \$2 per pound and the animal is finished to 1,450 pounds, the break-even selling price is about \$1.35 per pound. If they can't get at least that break-even price, they begin to lose money.

Over just the past year (since

late 2015), the feeding industry in general has lost about \$280 per head, and there have been some periods when losses were as high as \$400 per animal.

For an outfit like Western Feedlots with three yards, and a total capacity for 100,000 head at one time, any losses quickly add up. Most feeders will turn their inventory over 2-1/2 times, so in a yard capacity for 100,000 head that makes a total of 250,000 head of cattle per year. At a loss of \$280 per head,

multiplied by 250,000 head, the feeder is looking at a potential loss of \$70 million per year. That translates into a hit of about \$6 million a month, or about \$200,000 per day. It takes some very deep pockets to cover that kind of loss.

Could these losses have been avoided? With increased production across the North American cattle industry — increased beef supply — it didn't appear that finished cattle prices were likely to increase.

But, there are several reasons why a feeder stocked up last year. Some feeders ignored advice not to fill their pens in hopes of a rebound in finished cattle prices — the rebound hasn't happened. After decent returns in 2014 and early 2015 some feeders also stocked up last fall to reduce the risk of paying taxes. And if a feedyard had 40 to 100 employees and full silage pits, that was another pressure to keep the place operating.

I don't know if any feeder is making great money, but the yards that didn't load up on higherpriced cattle last fall, and are waiting for lower feeder cattle prices this year, reduced their risk, and hopefully sit in a survival position.

» CONTINUED ON NEXT PAGE

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PRECONDITIONING POTENTIAL

So what about the cow-calf producer? Klassen's advice for the past few months has encouraged producers to consider backgrounding fall calves until prices at least improve a bit next spring.

Our longtime livestock nutrition columnist Peter Vitti isn't talking about backgrounding in his most recent column but he did make an economic argument for preconditioning calves.

Preconditioning is one of those topics that gets tossed around, but doesn't seem to gain wide spread acceptance. It was a hot topic about 15 years ago, at least here in Alberta, but there seemed to be a real push and even some incentives for calves that were weaned and started on feed at home before being marketed. But interest appears to have cooled.

Part of the problem I hear is that many cattle feeders don't necessarily offer a price premium for preconditioned calves, which doesn't send a very encouraging signal to cow-calf operators. "If I'm not getting paid extra for my time, trouble and expense, why do it?"

Vitti has some numbers which does show an economic benefit, and one operator he talked described how their Manitoba farm struck a deal with a local feeder to provide "certified preconditioned" calves. Usually there



Oliver Schunicht targets 75-day preconditioning for fall calves.

was a price premium, and for the producer it also made good economic sense to be able to deliver calves to a local feedlot at reduced trucking costs. So that makes the case — even if the price isn't higher, perhaps costs are reduced.

And preconditioning program can benefit cattle feeders. There are several preconditioning programs in the U.S. that offer price premiums. At a pr-conditioning session at the Canadian Beef Industry Conference in Calgary last summer it was noted the cold weaning and shipping to auction takes its toll on calves. Weaning itself is very stressful on calves and then several other

factors are stressful too. Research shows it can take five days for a weaned calf to get from the farm into a feedyard.

Research further shows that up to 30 per cent of those calves will need to be treated for some type of Bovine Respiratory Disease (BRD) at the feedyard, and on average 7.5 per cent of them will die. That in itself represents an economic loss of about \$8 million in Western Canada, never mind the delay in rate of gain on those calves that were treated and lived.

So what are the requirements of pre-conditioning? There are four basic components.

- 1. Calves must be weaned for a minimum of 45 days.
- 2. Calves need to be vaccinated and boostered with IBR, BVD, BRSV, P13, clostridial vaccine and Pasteurella Pneumonia at least 21 days prior to sale.
- 3. Calves need to be castrated, dehorned and healed, dewormed and treated for external parasites at least 21 days prior to sale.
- 4. And calves need to be introduced to processed feedstuffs, feedbunks and waterbowls, commonly referred to as "bunk-breaking." And if it's an official preconditioning program they might also need to be tagged and receive a veterinary verification.

Oliver Schunicht, who produces cattle in southern Alberta, told the conference he makes money at preconditioning calves, even though feeders don't necessarily pay a premium.

Schunicht says over five years of preconditioning calves he's been able to realize a profit every year. Schunicht says for him the key isn't about expecting a higher price, it is about keeping the calves long enough to make money on their increased gain.

He says for his farm near Rockyford, east of Calgary, he has to keep calves for at least 60 days and ideally for 75 days before marketing.

As producers look at precon-

ditioning, he says they need to consider a few things. Do they have the proper facilities for preconditioning? Calves need to properly processed and also given access to feed bunks. Ideally calves should be weighed in and weighed out, and treated with a proper vaccination program that can be developed with their herd veterinarian. Producers will also need equipment to feed these calves, and it might require the investment in some type of mill so grain can be rolled.

Schunicht says at his farm he already had two full-time employees on staff, so diverting their time to feed calves wasn't a big issue. He estimated it took about two hours per day to tend the calves.

He fed a ration that was about 70 per cent silage and 17 per cent hay with the balance in barley and supplement. He targeted a gain of two to 2.5 pounds per day. He could have fed to achieve three pounds of gain per day, but figures the calves would have been too fleshy.

His calves stay on this ration for 75 days and in recent years he has marketed through a video auction service, so the calves are filmed on the farm and don't have to be trucked to the sale ring. While he doesn't necessarily see a premium, his calves have typically sold in the top of the Canfax price range. And he says once feeders see the value in these calves one year, they may be more inclined to seek them out another year.



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ANIMAL HEALTH



Various treatments for calf diphtheria

Injury to mouth or throat can allow bacteria to set in



ROY LEWIS ANIMAL HEALTH

am sure most producers over the years have had calves (on a sporadic basis) develop a throat infection. These are the calves which have an extremely loud inspiratory and expiratory sound which can be heard, across the pen. They generally have extended neck breathing and are in various forms of respiratory distress.

The cause of these signs is generally an infection of the throat or larynx area caused by the same bacteria, which can often cause foot rot. Technically it is called necrotic laryngitis or calf diphtheria, sometimes referred to as "barker calves." The initiating cause is usually an abrasion to the throat caused by rough feed or an oral ulcer. Seldom do we see these cases in outbreak form. Sporadic cases are the norm and can occur from young calves right up until cattle are in the feedlot. The younger cattle having a soft oral lining are therefore most susceptible to these abrasions.

The oral ulcerative lesion could have even started from sharp teeth and them inadvertently biting the inside of their cheeks. I am sure we have all done this from time to time or bitten our tongue so we all know how these injuries could occur.

The organism gains entry this way and over time an abscess is formed around the laryngeal cartilages. This combined with the surrounding swelling significantly reducing the respiratory passage. In a sense, what you are hearing is like a whistle when the calf is breathing.

VARIOUS TREATMENT APPROACHES

Over the years veterinarians have used various treatments depending on what they have found to be most effective. The larynx is mostly cartilage and as a result the blood supply and hence the ability to get antibiotics to the site of the infection is not good.

Drugs from the potentiated sulphonamides to penicillin and more recently drugs such as the macrolides (Zuprevo and Draxxin) or florphenicol (Resflor) have been tried. If you have a calf with symptoms, make sure to get your vet's advice as to what drugs have worked the best and for what length of time as they are all prescription drugs.

Veterinarians will often recommend a NSAID (non-steroidal anti-inflammatory drug) such as banamine, anafen or metacam, to name a few. These and the antibiotics are all pre-

Grainews.

to sign up for enews.

scription drugs, which is why you need your herd veterinarian involved.

Response is favourable if caught early and treated aggressively. I have found in numerous cases where the producer notices the condition early, but stops treatment too early, that a relapse occurs. In my experience even if clinical signs have subsided substantially I continue treatment for several more days. The NSAIDs may be stopped after a few days but the antibiotics are kept on board for the duration.

In chronic cases or those unresolvable with drugs some can be saved with an emergency tracheotomy and laryngeal surgery where the abscess is peeled out and the proper diameter to the wind passage is re-established. These cases of course carry a guarded prognosis, but leaving these calves and doing nothing is grave indeed. You will have such a restriction that the eyes seem bugged out from straining to breathe.

CALVING INJURY SIMILAR SYMPTOMS

There is only one other condition I know of that mimics necrotic laryngitis. Large calves that are born backward and have had a hard pull may break some ribs. The first few ribs as they heal it causes a restriction on the windpipe resulting in the same clinical signs.

These generally cannot be helped and although a tracheotomy may provide temporary relief, the actual problem cannot be corrected as the restriction is lower down the wind passage. This is why one question I always ask with these affected calves was it a hard-pull backward calf. If the answer was yes then the prognosis is much much worse and treatment does nothing to alleviate the clinical signs.

Cattle are valuable so keep in mind something can be done or at least tried on these calf diphtheria cases. Try to not wait too long before treatment is initiated and remember to finish the course of antibiotics your veterinarian recommends. Laryngeal surgery can

be done as a salvage operation but most cases will clear up with good sound medical treatment. A few will recover but will still have a distinctive whistle especially if they breathe heavy after running a bit. This will be a permanent condition for the rest of their life but they still will do well enough in the feedlot.

Extra attention to a few of these calves can save them so do your due diligence and treat where appropriate on advice from your vet. Watch for these calves both this fall as they go on feed and in spring as young calves run the risk of developing this condition.

Roy Lewis is an Alberta-based veterinarian specializing in large-animal practice. He is also a part-time technical services vet for Merck Animal Health.





Coping with unexpected setbacks

Health problems help to bring priorities into focus

BY DEBBIE CHIKOUSKY

ur farm began with a dream for a future where there would be room for our children to carry on the business. As my husband and I aged, we would gradually hand over the reigns to the next generation. Eventually he would retire from off-farm work when our farm could sustain itself. Life would continue with the next generation.

Then plans changed. Due to health issues, our family has had to do a lot of restructuring, both financially and in responsibilities. This has developed especially over the last six months. It has come with huge lessons on what are true necessities for our farm to continue operating and also on how we spend money. The one absolute necessity we all agree on is that a farm needs a tractor and we need to teach our young farmers how to keep them running.

TRACTOR CHALLENGES

Our tractor challenges started when our little raking tractor blew a connecting rod bearing or two. We have always tried to be diligent with oil monitoring and other service, but apparently, according to a very wise man, when you use things they break.

One day when my daughter was raking she had to stop and ask her brother, who is now the headman in the field, if it was normal for the tractor to smoke. Somehow we had gone from a little leak to a problem and then to a big problem. It resulted in a broken connecting rod bearing in a matter of minutes.

The very old gasket on our Case VA just decided to let go. Thankfully the tractor is repairable but it means time. The other problem is no one knows what Grandpa knew about fixing these old machines and he is gone. That tractor got parked — there was no rush to fix it because days later our baling tractor also broke.

My son was moving a mini bag and the spindle let go on the front of the tractor. The bang we heard in the house was very loud, but no one was hurt. Thankfully we had pieces that a very talented machinist could make into a replacement part for a fraction of the cost of a new one. The replacement cost of the new part would have been anywhere from \$175 to \$500. Because we had the

pieces the repair was \$75 and now my son knows all about a new part of the tractor.

With that fixed business could continue. This is the only tractor on our farm that's used to clean manure and haul hay to feed pens. We were quickly realizing just how important this tractor is for so many chores. Then it died on the way down the highway to put a bale of hay in for our cows to lure them into a holding pen.

In moments it went from driving along normally to sounding funny. Then it smelled funny, hot but the gauges were fine. It was stopped and pulled over for a better look and then black smoke started puffing out of the blowby. It was turned off. All fluid levels were fine but it wouldn't start again so we called for help. Thankfully there are men in our area that know a lot more than we do about these tractors.

ANOTHER LEARNING CURVE

This time there were two problems. Testing the fuel injectors showed three were questionable and one was good. That meant replacing all of them and keeping the good one for a spare. These are approximately \$70 each.



A micrometer is invaluable for certain tractor repairs. This is the proper way to hold the micrometer. It is important to gently twist and stop immediately when you feel the surface of the spindle touch the object you're measuring so ensure that the spindle isn't flattened.

Without labour this is still not unreasonable. Then we kept digging and found that a connecting rod bearing had spun.

Replacing the connecting rods (\$80 each) and bearings (\$18 each) is pretty straightforward as long as there is not a lot of damage to the crankshaft. The important tool to use in repairing these problems is an outside micrometer. The one we have is very old — not digital or laser. Micrometers were specifically designed to accurately measure pistons, crankshafts, valve stems and other engine components

Without labour this is still not where accuracy to the thousands unreasonable. Then we kept dig- of an inch is required.

This is an area where home schooling has greatly benefited our children. In this situation it was back to the textbooks I still had. *Small Gas Engines* by Alfred C. Roth saved the day. My husband and son were able to sit with this text and a small micrometer and dig into their vague memories from when Grandpa tried to teach them how to use a micrometer.

My husband remembered more so between the book and a web-

» CONTINUED ON PAGE 53

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Firewood, hunting among signs of fall

Pastures still holding up despite shortage of water for irrigation



HEATHER SMITH THOMAS

OCTOBER 7

ast Friday we had strong winds that shredded the tarp on my haystack and blew bits of it all over the barnyard. Weather was nicer by Saturday and I trimmed Veggie's feet. We'll be putting him down in a few weeks; his arthritis is getting worse with the cold weather. But I want him to be as comfortable as possible until then, without the extra strain on his joints from long toes.

» CONTINUED FROM PAGE 48

PRECONDITIONING CALVES STILL PAYS THIS FALL

a person I met at Forage Days in Vita, Manitoba, a couple of years ago. She said that her parents operate a 500-cow-calf operation near Brandon.

Rather than ship their weaned calves out of province, they sell about 400 verified preconditioned calves to a local feedlot. Depending on cattle feeder prices, the feedlot paid a premium (undisclosed), which covered all costs of preconditioning plus a nominal profit. My friend said the profit wasn't the reason that her parents preconditioned their calves, but rather they had a guaranteed market (without trucking logistics) for their calves.

This positive experience coupled with practical and financial attributes, helps make preconditioned weaned calves simply worth more in today's bear market.

Peter Vitti is an independent livestock nutritionist and consultant based in Winnipeg. To reach him call 204-254-7497 or by email at vitti@mts.net.

» CONTINUED FROM PAGE 52

COPING WITH UNEXPECTED SETBACKS

site at www.chicagobrand.com/help/micrometers.html we were on our way to getting the tractor running again. My son is gaining confidence that he will be able to fight his way through this huge tractor repair. This web page is printer friendly. That makes it fantastic to print off the information we need to take outside as we worked on the tractor.

There is lots of information about succession planning, but all of these tractor breakdowns have shown us there needs to be an ongoing transfer of knowledge from one generation to the next much earlier. You never know when that knowledge will be needed. An unexpected accident or illness, which is what has happened in our world requiring long-term recovery, is hard to deal with.

Debbie Chikousky farms with her family at Narcisse, Manitoba. Visitors are always welcome. Contact Debbie at debbie@ chikouskyfarms.com. Wednesday we moved the 16 heifers to the field above the horse pasture. It's grown back, with Andrea's irrigation. Hopefully it will have enough grass to last until we put them in the field below the house for winter. Andrea and I rode Sprout and Dottie to check cows; the storm brought them down to the lower end of the 320. We checked the lower trough and discovered that it's not working at all. The springbox probably needs to be dug out and the water line unplugged.

OCTOBER 14

Lynn moved the stackwagon to make more room for hay in the hold pen, then located water for a well near North Fork, down the Salmon River.

Sunday the girls rode with us (on Ed and Breezy) to check the 320. The cows were spread all over the hills and we also saw three elk. Later that afternoon Sam spent time with Veggie, brushing him and combing his mane.

We are trying to irrigate the rest of our fields before winter, but we're still short of water. One neighbour had been using water even though that irrigation water should have been shut off. We had NO water in the ditch by Andrea's house a couple days ago; Lynn had to hike up the ditch and find out where it went. The watermaster was called in to straighten out the situation.

Michael and Nick went hunting

on opening day of deer season and got a small buck. Everyone is short on meat right now, so hunting is of great interest!

Michael, Nick and Robbie went up the creek for firewood. They are selling some and stockpiling some for our own winter use.

OCTOBER 20

Last Saturday Lynn located another water source for a well on Diamond Creek, where some folks from Texas bought property and want to build a house. He's now located about 350 wells.

Andrea cut up Nick's deer and ground it into hamburger for Michael and Carolyn and the next day Michael brought a load of firewood for us. Andrea and I rode again to check the cows on the 320 and discovered that the upper trough was not working at all. There were more toads in the springbox this time, and one of them probably went down the pipe and plugged it. She tried to take the pipe apart at the trough, but we needed more tools. We may have to use compressed air to blow out the line.

Today the snow has mostly melted, so the cows are hopefully still doing well on their upper pasture and not wanting to come home!

Heather Smith Thomas is a longtime Grainews columnist who ranches with her husband Lynn near Salmon, Idaho. Contact her at 208-756-2841.

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DAIRY CORNER



Right and wrong fermentation

If silage moisture is too high going in, it can affect feed quality and palatability

BY PETER VITTI

his autumn, I have seen a variety of corn fields being chopped into silage for dairy cattle. While some of this corn was dried enough to make some good quality corn silage, I was surprised when I saw some producers literarily harvested green chop. After all, they were faced with another rain shower, which forced them to make wet corn silage. However, they should know the problems of wet corn silage and be prepared to deal with it, when the bunk or silo is opened.

As a dairy nutritionist, I consider any ensiled corn silage to be too wet when its dry matter content falls below 30 per cent,

which makes ensiling the crop for good silage difficult in the first place. The best corn silage fermentation occurs when whole plant moisture is between 65 and 70 per cent. This is the standard recommendation for making corn silage in horizontal bags and bunker silos, with a slight drier allowance in tall tower silos.

Harvesting corn silage at moistures above this threshold of 70 per cent yields not only lower dry matter content, but may result in seepage of essential nutrients such as soluble proteins and energy-enriched starch and sugars. Rather than promote anaerobic lactobacillus fermentation, which produces high levels of lactic acid to lower the pH in order

preserve corn silage, clostridia fermentation is allowed.

WRONG TYPE OF FERMENTATION

Clostridia bacteria fermenters convert forage starches, sugars and organic acids into butyric acid, as well as dietary protein into ammonia. This type of fermentation is very inefficient, which often leads to high dry matter losses, a higher pH and high levels of butyric acid, which gives the silage a smell like rancid peanut butter and/or spoiled fish. Dry matter intake and milk production often suffers when butyrate-containing silage in a TMR is fed to lactating dairy cows.

Aside from palatability issues caused by butyric acid content, the excess water content alone may create physical problems of getting lactating dairy cows to consume enough dry matter of the entire diet. It might result in a significant reduction of all essential nutrients destined for milk production.

For example, a group of early-lactation cows eat 90 lb. of a dairy diet with a total moisture content of 48 per cent calculates into a base consumption of 47 lbs. of dry matter intake (DMI). Now, let's assume that the moisture content of a new bunk of corn silage (2016) making up 40 per cent (DMI) of this lactation diet is 72 per cent moisture, compared

HERE ARE SOME OF THE IMPORTANT GUIDELINES* FOR WELL-PRESERVED CORN SILAGE

Moisture	65 – 70 %	
рН	3.7 – 4.2 %	
Lactic acid	4 – 7 %	
Acetic acid	1 – 3 %	
Propionic acid	< 0.1 %	
Butyric acid	0.0 %	
Ammonia-N (% of CP)	5 – 7 %	

*source: University of Delaware.

to the previous year's 67 per cent moisture.

Now the new diet is wetter by five per cent. Without adjustments, these cows are forced to eat 100 lb. of the new diet on an "as is" basis to consume the same DMI. If there is a large proportion of first-calf heifer in this early lactation group, they most likely will not be able to eat this much feed.

The point of the above lesson is "Don't be caught off guard when dealing with wet corn silage"! That means that dairy producers should choose the best method that works for them in determining the moisture content of post-ensiled corn silage samples. While there are many ways to test moisture content in feeds, I like the two easy-to-do approaches; namely, using a Koster tester or by microwave oven (MV).

MOISTURE TESTING OPTIONS

The Koster tester is an electric dryer that is specifically designed for drying forages and wet feeds, and determining their moisture content. This apparatus has a heating element and fan built in its base by which hot air is blown through the feed sample placed on a built-in screen for moisture determination. Its drying procedure takes about 20 to 25 minutes.

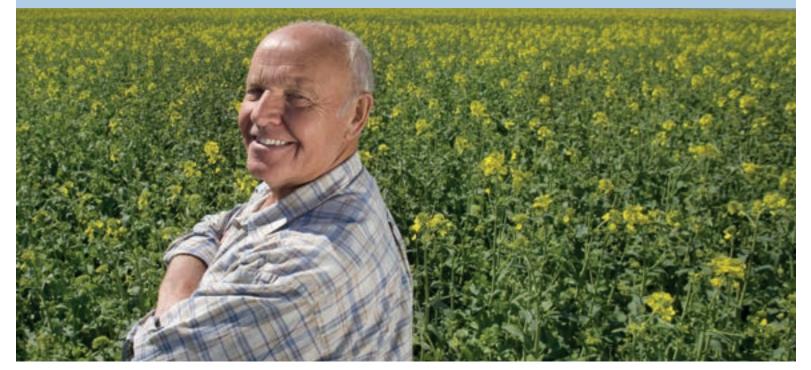
Sample loss tends to be a small problem in using the Koster tester. Likewise, the common microwave oven provides a quick means of also drying samples. Its greatest challenge is to avoid burning samples, when they get crispy (re: recommended to place a small amount of water in oven). MV drying time is about five to 10 minutes for most wet feeds. Regardless of which methods is preferred in determining the moisture content of one's corn silage and other feeds, it sometimes takes a bit of practice to refine their similar procedures in order to achieve the most accurate moisture results. Luckily, some dairy producers

took as routine pre-harvest corn silage samples. They did this by a sweep of a harvester or yard-cutter. They might have decided to delay harvest and allow standing corn plants to wilt down further. In doing so they reduced the risk of ensiling corn that was too wet. I am also a big believer in producers taking post-ensiled corn silage test samples.

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How to find a successor for your farm

If you don't have anyone interested in taking over the farm Succession Matching may be able to help



ELAINE FROESE

t often happens at my succession communication seminars that a weary farmer approaches me with a problem. "Elaine, we don't have a successor for our farm." The look of worry and wear on their face makes me want to just sit and listen to their story. When I spoke in Biggar, Saskatchewan a few years ago, 30 per cent of my audience did not have a person in place to take over the farm.

Enter www.successionmatching.com the website you need to explore. Alison Anderson was working for Community Futures when she realized the great need for a system of finding successors for all types of businesses, so in 2012 she launched Succession Matching, and Industry Canada has named the website as the place to buy a business online.

The matching questions are weighed based on experience, and the timeline expected for a sale. They really push mentorship of the existing business which results in 70 per cent of the businesses still being a success five years later. Many farm families want the years of equity that they have built up to continue with a strong legacy, and succession matching has put programs in place to ensure that legacy is strong.

So far the website process has matched five farms, which is a good start. Since I have learned of this resource I have connected several farm advisers to Anderson to take advantage of the myriad of educational webinars that are helpful to add to the different skill sets needed for a successful transition. The transition timeline can be two to seven years, as the expert advisers want all the due diligence to take place. This happens in the form of a checklist so that introductions

can be made to resource teams.

Many corporations access the succession matching site via regional Community Futures offices which can provide bridge financing tools and other financing programs.

Privacy is a key code of conduct during the matching process, and Anderson can set up what she calls "ghosts" to invite one match to look at your business profile.

Here's a sample of one of Anderson's blog posts:

Here are four of the biggest market challenges and opportunities our members are expe-

• Less family transitions

We are seeing fewer second- or third-generation familv members wanting to move back home and take over the family farm. In combination with an aging population, this is the main reason why people are increasingly looking to sell to a third party. But knowing they have to widen their market beyond family members, sellers generally have a willingness to train and mentor a buyer. In doing so, their buyer in many respects becomes a new addition to the family.

Access to capital

Straight, traditional financing on land and equipment is too large of an entry barrier for new farmers. This poses a dilemma for retiring farmers; they need to pull money out of the farm to fund retirement, but subsequent generations often don't have enough cash to pay the fair market value of the farm. And lending institutions often shy away from extending enough debt to cover the purchase price for a farmer just starting out. Buyers and sellers usually reach a purchase agreement involving some combination of cash, debt and possibly the vendor taking back a mortgage on a portion of the purchase price.

• Importance of legacy

Community is important to

producers. There is a large difference in "being bought out" versus "selling out." Finding a family that wants to live in and contribute to the community is important to many sellers. But as new relationships are built during the training and mentoring phase, finding the right buyer can provide rebirth for the farm. The right buyer can take the farm to the next level and be a positive contributor to the community for many years to come.

• Willingness to mentor

No one knows the ground better than the person who farmed it for the last 30 or 40 years. All of the farm owners on our site are willing to stav on and mentor the buyer for a period of time. And while someone who grew up on a farm might not have any desire to take it over, a buyer seeking a change of lifestyle often has a willingness to learn the industry that trumps his or her minimal experience. Sellers recognize a buyer with a desire to succeed is an important part of the transition process. On the other side, buyers value the mentoring process and see it as helping to minimize risk as a result of buying an existing operation versus starting from scratch.

Over the past few months, I (Alison) have had the opportunity to get to know one particular family that raises and shows purebred cattle in Alberta. This is a perfect opportunity for someone who cares about sustainable farming and wants a low-cost entry point to the industry. This family is willing to have the potential buyer live on their land rent free. But more than that, the right person will have a chance to learn from many years' experience and obtain valuable knowledge that can't be found in a book or shown on a financial statement. What better way to learn a business than working within an existing one, being active within the operations and having the guidance and mentorship needed to succeed.

So now you have a new resource to access to figure out



Alison Anderson, the director of Succession Matching.

your farm transition plan. I hope you will explore www. successionmatching.com and sign up for their webinars to build your skill set as you seek to create a lasting legacy for vour farm.

Another way to find a successor is to start mentoring relationships with the young farmers in your area who don't have parents to help them get started. This has been explored in a Country Guide article called "Not related."

I also encourage you to ask for what you need, and network with ag-based groups to let others know your skill set, and your desire. The farmers in Biggar who were seeking a successor started those conversations at our seminar. So get out in the community, seek out the website of succession matching, and work at making your dream an actionable goal. All things are possible when you have desire, drive, and discipline to communicate your succession vision.

Elaine Froese, CSP, CAFA, CHICoach loves to help folks discover the possibilities of the next chapter. Visit www.elainefroese.com, and like her on FB at "Farm Family Coach." Call 1-866-848-8311 to book her for your next ag event.

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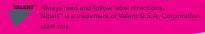
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The benefits of juicing

Vegetable juice is nutritious and the pulp can be used as well



omething about the idea of not chewing my food has always kept me a bit skeptical about the benefits of juicing. Our family doesn't advocate waste either, so what do you do with the pulp? Since my husband has been trying to regain his health and we are researching ways to incorporate more nutrient-dense foods, the idea of juicing came up again. But no matter how much

remained: "Why isn't it better to eat the whole food?"

Finally the answer came to me. The same reason doctors recommend patients with malabsorption issues to use products like Ensure. A liquid is readily absorbed into the small intestine with very little effort.

We were gifted a large amount of carrots, so juicing has begun in our home. Carrot juice is a delicious and nutritious drink rich in beta carotene, vitamins A, B, C, D, E, and K, and minerals such as calcium, phosphorus, and potassium. It is believed to be helpful for prenatal health, eyesight, bones and teeth, liver and nails, skin and hair as well as helping in cancer prevention. A large carrot produced

Our family owns a centrifugal juicer as well as blender and food processor. We're experimenting to see which one is best for us but each has merits.

To use the centrifugal juicer is quick. Assemble it, wash a carrot or two, feed it through and the juice comes out. Take it apart, dump out the pulp into a storage container, rinse the parts and drink the juice. The first morning this whole process took 10 minutes. The machine we have bogged down if we didn't clean it after about every second carrot. The antioxidant vitamins degrade very quickly and it is best served immediately when made with this kind of machine. This is because the high-speed

in small particulates through the air to separate it from the pulp. In doing so, the juice, once safely protected by rind or skin, is naked to the air — producing oxidation! It is recommended to be consumed within 45 minutes.

The food processor/blender method worked very well for a family's worth of carrot juice at a time. Wash two pounds (one kg) of carrots (about eight) under cold running water. Cut into oneor two-inch chunks. To purée, process until carrots are finely chopped or mashed. A small amount of water is required to assist the machine in breaking the carrots up into a purée. A blender does finer work than the food processor does. To extract

Seed survival still stumps

Seed killer still at large. Several suspects behind high mortality, but no a

the juice, water must be mixed into the pulp. To do this pour two cups of boiling water into the blender making sure that the purée is completely mixed into the water. Let this mixture steep, thereby allowing the water to pull the nutrients and flavours out of the carrots. Aim for a steeping time of 15 to 30 minutes. Remove the pulp using a tea strainer and strain the juice into a glass container. Using the base of a glass or other blunt object, press the mash to extract as much juice as possible from the strainer. Place the pulp in a storage container in the fridge and chill juice if desired. With this kind of slowspeed method, very little air is introduced. The consumption time was 72 hours.

In a house that is gluten free, the possibility of a cracker is quite exciting. Here's a cracker recipe, and a way to reduce waste.

VEGGIE PULP CRACKERS

2-1/2 c. juicer pulp 1/2 c. ground organic flaxseed 1 tsp. sea salt 1/4 tsp. turmeric powder 1/4 tsp. garlic powder Coconut oil or melted butter to moisten if necessary

Mix all the ingredients together in a bowl. If your mixture is too crumbly to pat out flat, you may need to add coconut oil or melted butter. Spread the dough onto a Paraflex sheet (if using a dehydrator) or onto parchment paper or foil on a cookie sheet (if you are baking them in the oven). Score the dough into squares with a butter knife or pizza cutter.

For a dehydrator, dehydrate at 115 for 2 hours and then break them apart and flip them over, then continue dehydrating for another 2 hours. Check to see if they are crispy, and if they're not ready flip them again and continue to dehydrate for another 15 minutes. Continue to flip and dehydrate every 15 minutes until the crackers are very crispy.

For oven dehydrating, set your oven at lowest temperature that the oven will go to. Dehydrate for 1 hour, then check to see if the crackers are crisp. Continue dehydrating, checking every 1/2 hour, until the crackers are crisp. Store in an airtight container.

There is lots of valuable fibre in the pulp as well as nutrients so throwing to the chicken house would not be the first choice, although at least then the chickens could use it to lay healthy eggs for us to eat. Using the pulp for humans is easy. It can be added to smoothies, or mixed into yogurt. It can be added to muffins, scrambled eggs, meat loaf, and burgers. We will be experimenting with other vegetables such as beets, cucumbers and zucchini.

It is best to eat whole food, but the juice on an empty stomach in the morning is readily absorbed, then the rest of the food can be used throughout the day. Our bodies can heal in amazing ways if they are fed.

Debbie Chikousky farms at Narcisse, Manitoba



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Home Quarter Farm Life

PRAIRIE PALATE

Well done, medium, rare or... raw?



AMY JO

y friend Joanne said she would not eat raw lamb, and that was fine with me. So while everyone else at the table made adventurous forays to try the lamb, she watched bemused. When they liked it, she looked puzzled. And when the bowl was almost empty, she finally picked up a piece of pita bread, spread it with lamb, topped it with mint and ate it. And liked it, too. Knock that off her "not" bucket list.

Eating raw meat is not as strange as it sounds in our roasted, stewed, grilled and skewered cooking culture. In our culinary heritage, it's way older than the BBQ. Of course, cooking is a great idea when the age and source of the meat is unknown, as in the reduced bin of the supermarket. Cook it well. But this case was different: the lamb was raised locally on an organic farm, butchered in a small inspected facility, quickly frozen and delivered to my home just a few days prior. I trusted it.

I was cooking dinner with my friend Paula, of Lebanese heritage, who says it's traditional to eat lamb this way on the day the animal is slaughtered. In other words, to eat the best first.

The dish is called kibbi nayya. To make it, minced lamb is mixed with cooked burghul (bulgur, a.k.a. cracked wheat), lightly spiced with cinnamon and cumin, garnished with green onions and mint, drizzled with olive oil and scooped into pita bread. A cooked version is made by spreading the mixture into a dish and baking it. That's good, too.

Many cultures have a special dish made with raw meat of the best quality. The French have steak tartare (ground beef). Scandinavians make gravlax (salmon). South Americans have ceviche (fish and seafood). In Asia there are many raw meat recipes including koi soi in Thailand, a ground beef salad. I have not tried it, but I would.

There was a time when I was strictly a cooked meat eater. My steaks were well done. That's how we did it growing up on the farm in rural Saskatchewan and the only way I knew. I have fond memories of Grandma's roast beef cooked to dry and chew-worthy proportions, but I also recall that I loved the juicy fatty bits she left behind in the pan.

Somewhere in early adulthood I tried a medium-done steak and I liked it. I graduated to medium rare. Next thing I knew, I was ordering straight-up rare to raw. I remember the moment of revelation: it was a steak house in Maple Creek, Sask., full of cowboys and their families, serving Alberta Angus beef. It was the most deliciously rare steak I had ever eaten. Seasoned only with salt and pepper, it was so much more flavourful and melt-in-your-mouth than the steaks of my childhood. With meat that good, it seemed a shame to cook it through.

I don't serve raw meat to my guests very often, and I would never push it on the squeamish. I find a happy medium in this version of Italian carpaccio, pronounced car-patcho. It's seared on the outside, pink on the inside, thinly sliced and served cold.

For the more adventurous, you'll find the recipe for kibbi nayya on my food blog HomeForDinner.blogspot.com.

Amy Jo Ehman is the author of Prairie Feast: A Writer's Journey Home for Dinner, and, Out of Old Saskatchewan Kitchens. She hails from Craik, Saskatchewan.

STEAK CARPACCIO



Choose a good cut of beef such as tenderloin or flat iron steak.

1 clove garlic 1/2 tsp. kosher salt 8 peppercorns

1 handful of mixed fresh herbs such as oregano, thyme, sage, rosemary and parsley

1-2 tbsp. olive oil 2 beef steaks, no bone Torn arugula leaves Shaved Parmesan cheese Sliced bread such as baguette

Smash together the garlic, salt and peppercorns. Chop the herbs very finely. Taste and add more herbs as needed for a nice balance of flavours. Add to the garlic mixture. Drizzle in just enough olive oil to make a paste. Rub herb mixture onto both sides of the steak. Wrap in plastic and refrigerate for a few hours to marinate. Coat a cast iron pan thinly with oil. Heat on high. Add the meat and sear both sides, about 2-3 minutes per side. The meat will feel quite springy when pressed with a finger. Cool, wrap and refrigerate until serving time. With a sharp knife, shave the beef across the grain in very thin slices. Arrange on a plate. Drizzle with olive oil. Scatter with arugula and shaved Parmesan. Serve with sliced baguette.

LOVE HEARING FROM YOU

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SINGING GARDENER

Ted shares info from readers

Plus, pause to remember on November 11



owdy out there gardeners and farmers with a tip of my hat to all readers. Here I am again feeling right at home in my overalls and putting down a wheelbarrow full of words on my Singing Gardener page.

With my fellow keepers of the soil close by, I'm sharing a gardener's experience at growing Dianthus Jolt Pink. I wrote about said flower in the February 2, 2016 issue. Plus, I've got more feedback regarding spuds. Add to that a letter in my mailbox forwarded to me by the great office staff at Grainews.



JOLT PINK DIANTHUS GROWING STRONG, SEPT. 29, 2016

From my inbox here's what Christine Terway from just outside Daysland, Alberta writes: "Re: Dianthus Carnation Pinks hybrid Jolt Pink. I started seeds in peat pellets and when they got a little bit bigger I transferred them to flowerpots. It was the last weekend in June when I moved them all to the flower bed. We were going camping and I had someone come and water the flowers. They just started to take off a couple of weeks ago. I have covered them lately at night due to frost; they are still going strong. I will plant them again next year as they have beautiful flowers and are very pretty, plus no pinching of dead blooms. Thanks, Chris."

Ted's reply: Glad to learn that Jolt Pink is performing so well for Christine. Besides high heat tolerance these vigorous plants are well branched without pinching (as Chris pointed out) and produce no seeds. Slightly scented flowers are edible and readily attract butterflies, dragonflies, pollinating insects and hummingbirds. It's said to be an annual but worthy of some experimentation in the garden. It may resurge the following season as a biennial or perhaps as a tender perennial if protected.

Jolt Pink seeds for 2017 are available from: W.H. Perron, Laval, Que., H7P 5R9, go to www. whperron.com, or phone toll free 1-800-723-9071.

A biennial is a flowering plant that takes two years to complete its biological life cycle. During the first year, the plant grows leaves and stems. The roots overwinter and then reappear the following season to produce flowers and seeds. Parsley is a very good example of having a two-year lifespan.

HAPPY HARVEST FROM ANDREW AND MARINA MOON

Marina writes: "Hi Ted" from their location south of Calgary. "Thought I would send you a photo of where the potato crop is at. Nice smooth skin on Russet Burbank and dense. They came out of the garden very clean. Andrew buvs new seed potatoes from Phoenix Farms near Nobleford, Alta. (home of the 'Noble Blade'). Andrew says, 'I plant them in the spring and harvest them in the fall.' The chickens seem to do a good job in keeping the bugs off the potatoes.

The Noble Blade was developed by Charles Noble who had a cultivator factory in Nobleford. It was in operation from the '30s until about the '90s. It was labelled as a reduced tillage plow, designed to cut weeds below the surface of the soil. With little disturbance to the soil. moisture loss was minimal. This was a great invention because of the dry, windy conditions in southern Alberta.

Andrew likes his potatoes steamed, I like them roasted and Elvin (son) likes his french fried (of course) or mashed. I still have a fair amount of steamed beets in the

freezer from last year so we stored this year's crop in wood shavings and put them in the root cellar. We are eating the last of our last year's carrots as everything has to be cleaned out before the new is put in. We are prepared for the winter; our freezer is full and we are out of canning jars.

All our potatoes and carrots are kept in the root cellar that was built by a gentleman in 1985 and he passed away in 1987. He had two daughters one of whom went to school with Andrew. The two sisters grew up on the property and they each built a house on the home place when they retired and have graciously let neighbours and friends have use of the cellar. A son-in-law helped build the root cellar. It is about 12x10 feet with wooden plank flooring, a sump pump and galvanized metal on the inside walls.

There is a red wooden building for storage that sits on the top that vou enter to access the root cellar. Of course the most ingenious feature is the electric 'elevator' which takes you about eight feet underground. It makes it very easy to take your bounty down into the cellar. Also my Felix LeClerc rose is in its fall blooming cycle. We enjoyed your info on potatoes and Moose Jaw Royale. Andrew and Marina Moon."

Ted says: What a great story and real good to hear from both of you.

THE SAGA ON **SPUDS CONTINUES**

This time it's a question re: Viking potatoes, a well-known variety. Beverley Gordon writes: "Dear Ted: These photos were taken in late August 2016. They are red Viking potatoes that were grown in 2015 and stored in our cold room. They were sprouted in the winter but when we brought the last of them out of storage they were covered with little potatoes and some were even growing inside. I live around Griffin, Sask., about 30 miles east of Weyburn. My uncle, Harald Sundberg and

I garden together. If you cut the larger potatoes open smaller potatoes were formed completely inside. What causes this to happen? I was still using these spuds for making potato salad and scalloped potatoes. We had another beautiful crop of Viking potatoes this year. These have become our favourite variety to grow. Sincerely Bev Gordon."

Ted's reply: Thanks Bev for the pictures. I've also encountered such an event as you describe. A commercial potato grower I spoke with could provide no solid explanation or answer why it happens. Let's open the column mike to our readers. Don't be shy now. Let's hear what you have to say in this connection. The question is: Why are some of Bev's storage potatoes covered with little potatoes on the outside and smaller ones completely formed inside larger potatoes?

LETTER DATED SEPT. 5, 2016

Next, sharing a letter from Clarence Worona over at Beausejour, Man., and I do thank him for it. Good handwriting too. "Hi Ted! I'm Clarence. I planted Yukon Gold potatoes from my own seed. They are good keepers. Had my old potatoes to eat until the new crop. I planted my own pumpkin seeds and the crop I had ranged from mini- to maxi-size pumpkins and the yield was about 10 wheelbarrows full. Everybody calls me Clarence the pumpkin head. Also, I planted squash which took over my garage stall. Also picked my own plums. I cleaned, washed and boiled them, then drained off the water, put the cooked plums in jars, filled them with apple and blueberry juice and put them in the fridge. I read the Singing Gardener first, then the front. Your Singing Gardener page should be on the front page and that's my story and I'm not sticking to it! Thanks Ted, take care. Clarence Worona."

Ted's reply: Thanks Clarence. If I ever have the funds to hire a public relations officer and fan club president, I'll let you know. As for my column on the front page, it's not likely to happen. I like it where I am. Besides, didn't you say you're not sticking to your story?

THE ODE OF REMEMBRANCE

They shall grow not old, as we that are left grow old; Age shall not weary them, nor the years condemn. At the going down of the sun and in the morning, We will remember them.

The above is taken from Laurence Binyon's seven-stanza poem titled: "For the Fallen," which was written in mid-September 1914, just a few weeks after the outbreak of the First World War. Not long afterward it was then published in The Times newspaper on September 21, 1914.

Expressed thoughts and feelings connected to Remembrance Day are not difficult to come by as Canadians acknowledge, support, pray for and pay tribute to our men and women veterans now serving at home and abroad. On November 11 at 11 a.m. let us also observe two minutes of silence wherever we may be, out of respect and in remembrance of our fallen.



This is Ted Meseyton the Singing Gardener and Grow-It Poet from Portage la Prairie, Man. Are you among the snowbirds travelling this winter? Take along this recipe. Hopefully you won't need to use it but 'tis always good to have on hand just in case. Here's the World Health Organization's formula for traveller's diarrhea, especially the form experienced by tourists. Fill one glass with 8 ounces of orange juice, a pinch of table salt and 1/2 teaspoon honey. Fill a second glass with 8 ounces of distilled water and 1/4 teaspoon baking soda. Stir both well. Alternate sipping from each glass one to the other. I read my email at singinggardener@mts.net.







Left: Dianthus hybrid Jolt Pink shows its superb flowering ability at end of September in Christine Terway's garden. These plants have high heat tolerance and perform well all summer long with flowers that keep on coming well into fall. Ted tells more.

Middle: Could this be a one-of-a-kind original means of transport from surface level down into a root cellar? Andrew Moon descended eight feet via an ingenious electric elevator making it very easy to transport harvested bounty to the root cellar for storage.

Right: Andrew Moon stands at the rear of his 2016 crop of Russet Burbank (a.k.a. Netted Gem) potatoes.

3 Habits of Successful Farmers



BY BRAND MANAGEMENT TEAM, FARM CREDIT CANADA

ontinual learning is important if you want to be successful at anything, and agriculture is no different. Three industry experts from FCC's learning event speaker lineup share some key habits that have propelled them to success.

NETWORKING

Networking is a valuable tool for any entrepreneur and should be part of your business plan — it's also a part of our ag knowledge events. Sharing and learning from other farmers is the foundation of Lance Stockbrugger's plan for success. Stockbrugger farms 4,000 acres of cereals and oilseeds and also worked as a chartered accountant.

As part owner of LDS Farms, Lance has

spent the past 20 years not only sharing his agriculture knowledge with producers, but also learning from them. "I've met with hundreds of clients over the years, talking to them about what worked in their operation. I learn from their knowledge and experiences, and then take that back and adapt it to our farm — trying new and innovative ideas that may have been tried by other farmers," says Stockbrugger.

By exchanging ideas with your network, you'll learn new concepts and skills that will help your business.

TECHNOLOGY

Successful producers embrace technology and while it may take a few minutes a day, the long-term payoff is often worth it.

"Technology is a big, fast changing sector and it's not something we all gravitate towards," says soybean and wheat producer Peter Gredig. He knows first-hand

the importance of technology. Peter is a partner of AgNition Inc., a company developing mobile products and strategies for agri-business, producer organizations and farmers across North America.

"One of the most common complaints I hear from farmers at the technology seminars I do for Farm Credit Canada is they just can't keep up with all this technology. It can be intimidating, but it's not going away and it's becoming a cornerstone of agriculture. Investing as little as 30 to 60 minutes a month will make a huge difference," says Gredig.

ECONOMIC TRENDS

Reading headlines and watching trends is another great habit successful business owners share.

"Agriculture is truly a global industry," says FCC Vice-President and Chief Agricultural Economist J.P. Gervais.

"Many events that happen outside our borders have a significant impact on a farm operation's bottom line. When you understand the trends, it's easier to see the opportunities for your operation.

"The financial world is a fast-paced sector. Many global trends are expected to shape the economic environment in agriculture. From oil prices to the Canadian dollar to the health of the Chinese economy, these economic drivers impact your business."

The business of agriculture is everchanging. J.P. and his team of economists turn big-picture scenarios into easy-to-read snapshots you can use to help manage your operation.

By focusing on continual improvements and ongoing learning, your success can only grow. For more ag knowledge and business advice, stay curious and take advantage of opportunities like free FCC learning events.

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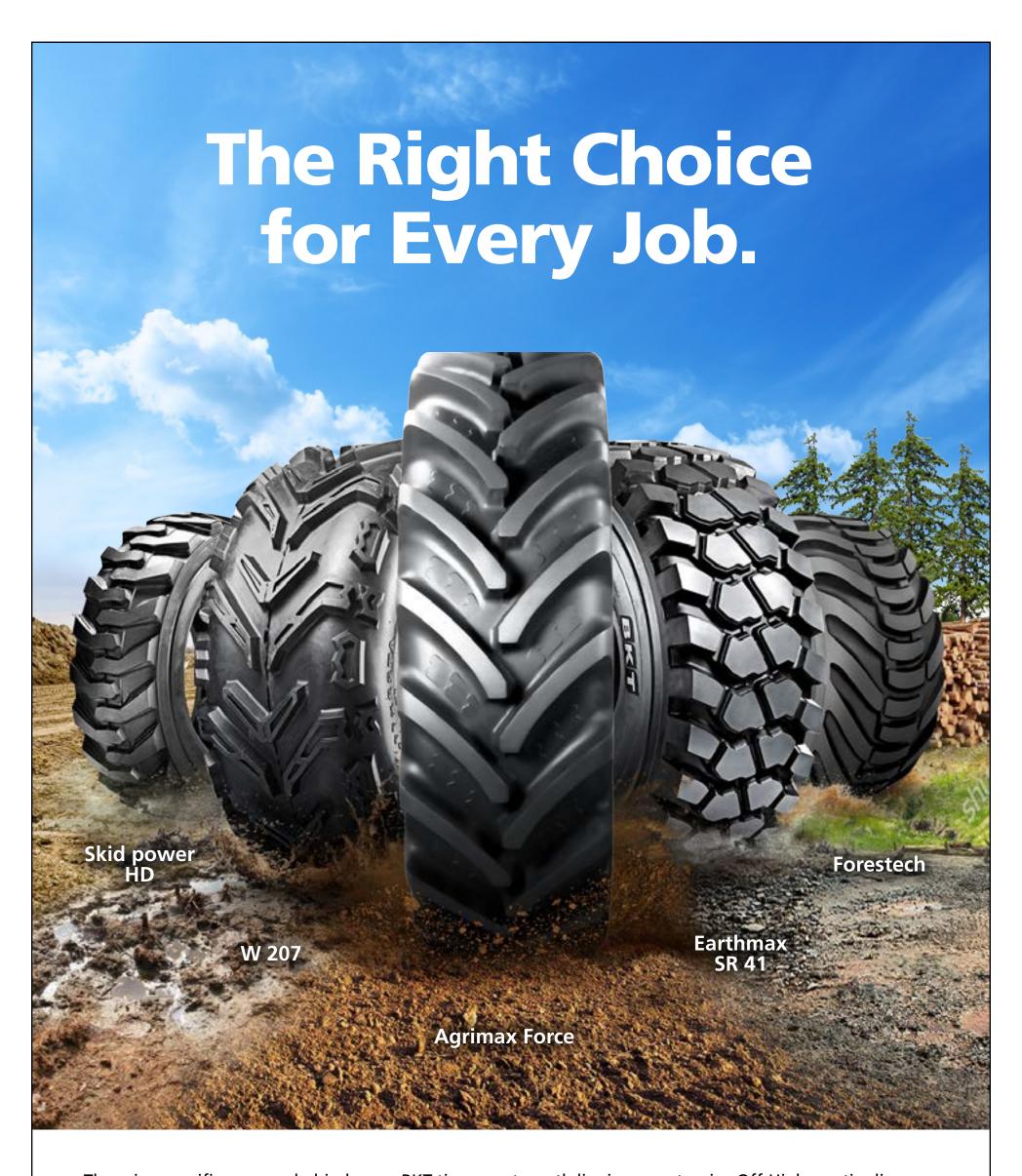
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