Grain handler can trace problem crop back to farm

Richardson says it has a system in place to trace rejected samples back to an individual farm

BY ROBERT ARNASON
BRANDON BUREAU

It’s a scenario that keeps grain exporters awake at night. A vessel with 70,000 tonnes of Canadian grain arrives at port in Japan. Samples are taken and tested. The shipment is then rejected because the samples exceed the maximum residue limit for a particular pesticide.

However, exporters such as Richardson International plan for such scenarios and have developed methods to trace the source of the infraction back to an individual farm in Canada.

“Yes, it is possible to trace the source of a rejected shipment of grain back to a farm delivery,” said Lynne Sweeney, the company’s assistant vice-president for quality assurance and food safety.

At its elevators, Richardson employees take samples from each grain delivery and store them in a database. If a shipment is rejected, the company can then trace the crop back to a particular farm delivery.

The system is designed to help Richardson address the issue of residue limits and maintain the integrity of the Canadian grain export market. The company has invested in technology and training to ensure that its grain is traceable and compliant with international standards.

Grain exporters, such as Richardson, work closely with Canadian grain elevators and farmers to ensure that the grain they export is of high quality. The companies have established systems to monitor and control the movement of grain from farm to port, and they are committed to maintaining the reputation of Canadian grain as one of the world’s highest-quality products.

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**NEWS**

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**INNOVATION ISSUE**

Check out our 2017 year end Innovation Issue. Ag innovation experts say there’s an agricultural revolution coming, but it will come with opportunities.

**VIDEO: CROWD-FUNDING**

An Alberta ornamental plant greenhouse has received crowd-funding of almost $30,000 to help diversify into vegetables.

**FARM RE-ALIGNMENT**

Frank Cote talks about re-aligning and diversifying his Peace region family farm.
Dryness threat not getting any better

Conditions range from ‘abnormally dry’ to ‘extreme drought’ across a large portion of Western Canada, causing increasing concern for the upcoming crop.

BY BRIAN CROSS
SASKATOON REPORTER

Most prairie grain growers could be looking at a dry and early seeding season in 2018 unless conditions change dramatically over the next two to three months.

Trevor Hadwen, an agroclimate expert with Agriculture Canada, says conditions across much of the West remain unusually dry.

Agriculture Canada just released the latest version of its Canadian Drought Monitor map, which shows conditions as of Dec. 31 ranging from “abnormally dry” to “extreme drought” across a large portion of Western Canada’s most productive farmland.

“Some areas have improved since freeze up in terms of snow accumulation and moisture in the soil,” Hadwen said.

“But for the majority of the prairie region, conditions have not improved since the fall.”

With a few exceptions, much of Western Canada went into the winter with low soil moisture reserves.

Growers in parts of northern Alberta and northwestern Saskatchewan were the most notable exception.

Since freeze up, almost the entire prairie grain belt has received below average amounts of precipitation.

Agriculture Canada precipitation maps show the vast majority of farmland in Alberta, Saskatchewan and Manitoba has received roughly half of the precipitation that’s normally expected in November and December.

Ken Panchuk, provincial soil specialist with Saskatchewan Agriculture, said Saskatchewan farmers who received a heavy snowfall in October are in better shape than growers elsewhere.

Generally speaking, farms located north of the Yellowhead Highway in Saskatchewan and Alberta have better soil moisture conditions that those south of the highway.

Some producers in west-central Saskatchewan have also seen some soil moisture recharge over the past two months, but additional moisture is on the wish list of most growers in central and southern Saskatchewan.

“Southern areas of the province, the brown soil zone, was dry in late October and has limited snow cover,” Panchuk said.

“Producers generally would like to see some snow cover to protect the soil from further loss of moisture by sublimation (evaporation).”

Panchuk said most areas of Saskatchewan have some amount of snow cover, but depth is variable.

“In the brown soil zone, it’s pretty thin,” he said.

“You don’t have to go too far south of Saskatoon to see areas where the snow is not covering the stubble yet.”

Hadwen said lack of significant snow cover and extremely cold temperatures during much of December have compounded drought conditions in some areas.

Without an insulating layer of snow on cropland, extreme cold can freeze dry the soil and further deplete soil moisture reserves.

“In general, we’re going into the New Year with very low accumulations throughout the prairie region and very low water content in the snow that is around,” Hadwen said.

“That’s a little bit of a concern, given that we’ve just come off a fairly significant drought event (in many areas).”

Hadwen said a lot can change in the next two to three months, before growers begin planting their 2018 crops.

“Snow that’s received in November and December normally accounts for a relatively small portion of total annual precipitation.”

“Probably the most important piece here is what’s still to come,” he said.

“We’ve got spring rain and spring snow that are the most important (factors) for soil recharge still yet to come.”

Western Canada is currently experiencing the effects of a light La Niña phase, which is trending toward neutral.

Those conditions typically make it difficult to accurately forecast precipitation over the long term.

“There’s not a lot of confidence in our forecasts right now in terms of how things will turn out over the next three months,” Hadwen said.

“They could change quickly or they could stay relatively the same. There’s just no confidence, no real strong indicators, showing us how things will react so it’s kind of up in the air right now.”

brian.cross@producer.com
One grain company says it can trace the source of individual deliveries back to the farm. | FILE PHOTO

TRACING CROPS TO THE FARM

CONTINUED FROM PAGE 1

truck delivery and keep the sample in tamperproofing, along with the delivery documents, for a "pre-
scribed period of time."

"Should a quality/food safety-related issue arise with a specific lot of grain, where the lot of grain was created by the commingling of multiple grower deliveries, we are able to determine which set of individual deliveries makes up the greater lot of grain," Sweeney said.

Shipments of grain and oilseed that exceed MRLs or have been sprayed with unregistered pesticides are a massive worry for Canada’s grain sector.

Doug Chorney, assistant chief commissioner of the Canadian Grain Commission, who spoke at the Manitoba Agronomists Conference in December, said buyers of Canadian grain are increasingly wary about residues and phytosanitary standards.

"And inside the countries that we ship to, there’s the activists who are looking at food being sold in their country and the activists in the states, for glyphosate residues."

Leaders of the canola, pulse, wheat, barley and oilseed industries have developed a Keep It Clean initiative, which urges Canadian farmers to use products properly and consider market acceptance when growing crops on their farm.

Keep It Clean is mostly an awareness campaign, but a Cereals Canada document explaining the program makes it clear that there are consequences for growers.

"Any intentional or unintentional mistake traced back through retained samples will expose individuals and their farms to significant liability," it said.

Richardson follows a certain protocol when it comes to grain samples and traceability, but other grain handlers may do things differently.

"The overarching statement in the Keep It Clean initiative is accurate, but the individual details regarding the potential application is a commercial decision made by each company exporter," said Cam Dahl, president of Cereals Canada.

"Policies regarding retention of samples and contacts clauses regarding the use of farm inputs and how they can get away from company to company," Sweeney said.

Richardson does mock recall exercises every year to demonstrate that it can trace grain from an individual truck delivery to a vessel and vessel back to the truck.

"(It’s) part of the requirements of maintaining our Food Safety Certification," she said.

The notion that grain companies can trace the suspected cause of a rejected shipment back to the farm might be surprising for some growers.

John Waterer, director of crop science with Paterson Global Foods, said a percentage of growers do use deregistered pesticides because they think there isn’t a personal risk. They assume their small amount of grain is part of a much larger volume at the elevator or on a vessel, so it doesn’t really matter.

"A lot of them feel they’re not going to get caught," Waterer said at the agronomists conference. "(But) I would say … our modern growers really do understand that they have a responsibility to keep the whole canola council Keep It Clean initiative — and the significance of meeting export standards."

However, like anything from wearing seat belts to drinking and driving, there’s always going to be laggards who don’t accept the educational message.

Severe penalties might be necessary to get those folks on side, or they might listen to a different message.

One potential message is that growers benefit when they follow pesticide label directions and use registered products because the resulting crop will probably yield more and have higher quality.

"There are very few problems out there today that can’t be resolved with good agronomy," Waterer said.

"You don’t need to use that active (chemical) that year. Some people may see it as a cheap way out of a problem, (but) take a longer-term approach and find different solutions.

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Waterer said low voter turnout regarding the use of farm inputs levies on almost every crop they grow. The amount farmers pay in producer levies has increased steadily during the past few years, often based on greater production and occasionally on favourable commodity prices.

In 2016, Saskatchewan growers paid about $22 million to the Saskatchewna Pulse Growers Association, $6.6 million to SaskCanola, $6.2 million to the Saskatchewan Wheat Development Commission, $1.3 million to SaskFlax, and millions more to smaller commissions that manage check-offs for barley, oats, mustard, winter cereals and canaryseed.

Those figures don’t include money that Saskatchewan farmers contribute to Western Grains Research Foundation (WGRF) programming via the maximum revenue entitlement (MRE) program.

Under the federal MRE program, the WGRF stands to collect more than $7.1 million in 2018, the result of freight rate overages that were collected from western Canadian grain shippers during the 2016-17 crop year.

Todd Lewis, president of the Agricultural Producers Association of Saskatchewan, said the province’s farmers are justified in asking tough questions about the commissions they support.

Most growers recognize the benefits of farmer-funded research, he said, but they also want an assurance that the money they contribute is being wisely spent.

"I think farmers have some concerns about the research side of things," Lewis said.

"They want to see as much of that money as possible put toward research…. But overall, as far as what APAS has heard from our membership, it really hasn’t been much of an issue.

Lewis said low voter turnout during commission elections is a potential cause for concern.

"It might be a sign that farmers are satisfied with the way commissions are handling check-off revenues.

On the other hand, it might suggest that growers are uninterested or simply too busy to vote.

Requests for levy refunds has also remained low.

Lewis has heard complaints that some levies are refundable while others are not.

"The Saskatchewan Pulse Growers Association has come under pressure recently to make pulse levies refundable.

So far, SPG board members have chosen to retain a mandatory non-refundable levy. However, they did agree to reduce the non-refundable levy to 0.67 percent of pulse crop sales, down from one percent. That change took effect Aug. 1, 2016.

"Research capacity is another area of concern.

According to some observers, research capacity needs to be expanded in Western Canada to ensure that commissions and other funders have adequate investment opportunities.

"I think that’s probably a fair assessment," said Lewis.

"There’s been a lot of good work done but capacity is an issue.

Lewis said the capacity issue is almost like the chicken-and-egg scenario.

"If you don’t have money there, you’re not going to build capacity. But if the money is available, then hopefully it will attract more people that want to do good research.

Bill Gehl, chair of the Saskatchewan Wheat Commission, agreed.

In a recent interview with The Western Producer, Gehl acknowledged that SaskWheat has come under scrutiny for failing to invest farmer dollars quickly enough.

But some of those critics may not have a complete understanding of the challenges that funding organizations face, he added.

"It’s hard (to invest research money) in certain areas," Gehl said.

"On the varietal development

LUNCH LINE | Cattle vie for feeding positions at a ranch east of Nanton, Alta., late last winter.

Tough questions about the need to fund research is generally accepted by farmers, but spending...
producer checkoffs

by various commissions is under scrutiny.

side, it’s pretty easy to spend a whole pile of money on genomics and that type of thing.

“But there are other areas that we are really having trouble getting money into—one would be agronomey and certainly post production would be another where we have difficulty finding good proposals.”

Gehl said work underway at the WGRF should go a long way toward expanding agronomic research capacity.

The WGRF, which manages a producer-supported Endowment Fund worth more than $120 million, has identified the need to expand agronomy research in Western Canada, a move that could spawn new investment opportunities, while supporting higher yields and better management practices on prairie farms.

Gehl said SaskWheat and other provincial cereal commissions are still in their infancy, adding that it takes years to build up spending and develop relationships with potential research partners.

In addition, research funds that are committed may take years to be fully allocated or distributed, especially when major, multi-year research projects are involved.

Through its first four years of operation, SaskWheat collected nearly $25.5 million in producer levies, issued producer refunds of more than $1.4 million and allocated roughly $5.3 million on research, market development, communications and advocacy. Administration and governance costs were in the neighborhood of $3.1 million.

Gehl said SaskWheat’s funding commitments and research allocations are continuing to grow. He described SaskWheat’s first two years of operation as a process that involved building a foundation, ladder up operations and developing relationships within the research community.

Initially, a great deal of the commission’s efforts were focused on setting up an office, hiring staff members and putting necessary internal systems in place.

“All of that stuff takes time but we’ve managed to do that very, very quickly and certainly, within our first two years, we really had, I think, established ourselves as a major player in research,” Gehl said.

“In addition to that, I think we took a pretty big step forward as well on the advocacy side… (with) the producer council on trans- portation with… SaskPulse, SaskBarley and APAS.”

Most recently, the commission signed on as a major funding partner in the Canadian Wheat Research Coalition.

The CWRC was formed in mid-2017 by provincial wheat commissions in Alberta, Saskatchewan and Manitoba. The organization is designed to enable provincial wheat commissions to collaborate on various development efforts, agronomy research and regional and national wheat projects through the Canadian National Wheat Council.

SaskWheat has set an aggressive target on research funding:

“We have earmarked 80 percent of our budget to research,” Gehl said. “We’re trying to keep our administration costs low. We have a very lean operation with very few staff and we really do try to get as much money into research (as possible).”

In Manitoba, producer commissions that represent wheat, barley, corn, flax, pulses and sunflowers are exploring the merits of amalgamating their operations.

Under the Manitoba Commodities Organization Amalgamation Proposal, the various commissions would operate as a single entity and take a multi-commodity approach to supporting agricultural research.

Supporters say amalgamation would result in better research and agronomy capabilities, higher returns on research investment, a stronger voice for the Manitoba farm community and a more unified and co-ordinated approach to funding research.

Amalgamation would also provide stability to smaller commissions.

brian.cross@producer.com

ALBERTA FUSARIUM POLICY

CONTINUED FROM PAGE 1

fusarium and its management in Alberta,” says a Jan. 2 email sent to The Western Producer from Alberta Agriculture.

“The department’s partners in surveillance, including agricultural service boards, and seed testing labs, have also been included in the overarching audience. As this is a large and diverse stakeholder base, we have distributed the survey through association and organization representatives.”

The email says the Alberta government will use the survey to “gain a better understanding of what industry needs, today and in the future, so that (the province) can determine how best to support producers, not just through any potential future regulatory changes, but through a much larger collaborative management strategy.”

Timelines for the development and implementation of that strategy have not been determined.

Until now, the Alberta government has shown little interest in removing fusarium from the Agricultural Pest Act.

As it stands, the act makes it illegal to “acquire, sell, distribute or use seed that contains fusarium, a regulated pest.

The Alberta Seed Growers Association backs the act.

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“Removing a serious pest from the Pest Act may seem counterintuitive when the overarching goal is to mitigate the effects of the disease. However, the zero-tolerance policy was implemented when fusarium was not present in Alberta.”

With its spread, the zero-tolerance policy no longer reflects reality.

AD-HOC FUSARIUM WORKING GROUP POLITION PAPER

JANUARY 11, 2018
MARKETS

MARKETS EDITOR: MICHAEL RAINE
E-Mail: mike.raine@producer.com | Twitter: @MikeRaine

BY ED WHITE
MINNEAPOLIS BUREAU

The United States is likely to lose lucrative market share of wheat in Japan in the near future, the U.S. Department of Agriculture is warning the American agriculture industry.

The world's second largest importer of wheat (Canada and Australia) will be similar to those in the deal Japan had agreed in the original TPP negotiations only contain the other 11 members. The tariffs in the original TPP were to be reduced by 45 percent over several years. The report offers a USDA analysis of where other countries could gain a competitive edge over U.S. wheat in Japan's market. Almost all major U.S. agriculture and commodity groups supported TPP. Many have also lobbied Trump to leave the North American Free Trade Agreement intact and have urged the White House to try to achieve other trade deals to make up for the loss of TPP. A frustrated National Association of Wheat Growers has already complained about the death of the TPP talks and the Trump government's continued attacks on existing trade deals, such as the one with South Korea. When asked to comment for this story, U.S. Wheat Associates pointed to its statement from one year ago, saying nothing had changed. "Without TPP or alternative agreements, U.S. farmers will be forced to the sidelines of trade while losing market share in the region to our competitors, including Australia, Canada, Russia and the European Union, which have current agreements or are negotiating new ones," said the Jan. 23, 2017, statement. edwhite@producer.com

Revived TPP threatens U.S. wheat sales

A successful revival of the Trans-Pacific Partnership could do major harm to American wheat exports

BY ED WHITE
MINNEAPOLIS BUREAU

The American wheat industry worries that being on the outside of the Trans-Pacific Partnership trade deal would put it at a competitive disadvantage. The report offers a USDA analysis of where other countries could gain a competitive edge over U.S. wheat in Japan's market. Almost all major U.S. agriculture and commodity groups supported TPP. Many have also lobbied Trump to leave the North American Free Trade Agreement intact and have urged the White House to try to achieve other trade deals to make up for the loss of TPP. A frustrated National Association of Wheat Growers has already complained about the death of the TPP talks and the Trump government's continued attacks on existing trade deals, such as the one with South Korea. When asked to comment for this story, U.S. Wheat Associates pointed to its statement from one year ago, saying nothing had changed. "Without TPP or alternative agreements, U.S. farmers will be forced to the sidelines of trade while losing market share in the region to our competitors, including Australia, Canada, Russia and the European Union, which have current agreements or are negotiating new ones," said the Jan. 23, 2017, statement. edwhite@producer.com

India urged to better explain import duties to its suppliers

Pulse Canada says exporters need more information from India so they have an idea how to plan for the upcoming year

BY SEAN PRATT
SASKATOON BUREAU

It is time for the global pulse industry to move beyond expressing concern about India's actions and to focus on ideas and solutions, says the head of Pulse Canada. India's recently announced duties and fumigation fees have brought trade to a "near halt" with the world's top buyer of peas, lentils and red kidney beans.

Gord Bacon, chief executive officer of Pulse Canada, said India is within its World Trade Organization rights to be charging import duties of 30 percent on peas and 35 percent on lentils. India is using the duties to restrict imports and bolster domestic prices that have plummeted in the wake of bountiful domestic pulse production. However, Bacon said the country needs to have better transparency on when duties will be assessed and at what levels or seeded acreage will drop and it will find itself facing a global shortage of one of its staple food ingredients.

"Remember, it was only 18 months ago that there was all these allegations of hoarding and price fixing and people rioting because price pulses were through the roof," he said. Start Publishing is forecasting a one million acre decline in Canadian lentil plantings this spring and another one million acre drop in peas. India needs to explain to processors and traders in exporting nations such as Canada what triggering events lead to duties being established and then raised or lowered is the trigger when the market price for lentils falls a certain level below the government's minimum support price for the crop, or is there something else behind it? If there was some transparency in how duties are established, then processors could at least have an idea how to plan for the upcoming year. "That's really where we need to start and the sooner the better," said Bacon. He said there needs to be transparency for planning purposes, because predicting Indian duties is currently a guessing game. The Indian government applied the maximum WTO allowable duty of 50 percent on peas, but the lentil duty was well below the 100 percent maximum. He has no idea why that is the case or whether there is a risk of it heading higher. India's stockpile of pulses is behind the current duties, but what happens when it disappears? "It could take six to eight months to work through some of the stocks," Bacon said. "OK, well, that puts us into October or the peak of the new harvest in Canada is ready." The trade needs to know what - if any - duties will be at that time, so it can have adequate supplies available.

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MARKETS

The Wheat King

AA CBrandon

CWRS Wheat

Canada’s Spring Wheat

Secan

Canada’s Seed Partner

The Wheat King

AAC Brandon

CWRS Wheat

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Continued on next page 33
U.S. winter wheat faces significant risk from cold snap

BY SEAN PRATT
SASKATOON NEWSROOM

It was a decidedly unhappy New Year for many hard red winter wheat growers in the United States. Temperatures plunged as low as -40°C Jan. 1. In portions of the country’s winter wheat growing areas, causing what some weather analysts believe is widespread winterkill.

Nick Vita, meteorologist with Commodity Weather Group, said the winterkill threshold is usually around -20°C, but this year they haven’t been clued in to the extreme cold.

“We’re worried about some winterkill that encompassed about one-third of the national hard red winter wheat acreage,” he said.

Snow amounts are variable in the winter wheat growing states and so was the damage. For instance, crops in Nebraska have sufficient snow cover, while crops in many parts of Kansas were susceptible.

Temperatures in Kansas, which is the top winter wheat producing state, ranged from -20°C to -25°C. “In such an event you can sometimes see 10 to 20 percent losses across the belt,” said Vita.

Radiant Solutions said snow cover was sufficient to protect crops from damage in the northern Plains and northern Midwest.

However, there was widespread winterkill “in the central and southern Plains and southern Midwest where snow cover was thin.”

Radiant said there was damage to crops in southeastern Colorado, much of Kansas, far northern Oklahoma, central Missouri, southern Illinois and southwestern Indiana.

“Damage occurred in about a quarter of the hard red wheat belt in the central Plains,” Don Keeney, senior agricultural meteorologist for Radiant Solutions, said in a newsletter.

Justin Gilpin, chief executive officer of Kansas Wheat, said the chilly temperatures have certainly drawn a lot of attention but he believes it is premature to be assessing damage.

“Hey, it’s certainly cold and it’s certainly dry, but the crop is dormant right now,” he said.

“We’re not going to really know anything until the crop breaks dormancy,” Gilpin said.

The U.S. Drought Monitor map shows that much of the hard red winter wheat growing region is experiencing moderate to severe drought.

The combination of drought and the cold weather snap has led to disappointing crop ratings. Just 37 percent of the winter wheat crop in Kansas was rated good to excellent as of Jan. 3. That is among the five lowest ratings Gilpin has ever seen.

However, he said spring rain will ultimately determine the fate of the crop once it breaks dormancy. So it is a little early to get too concerned about yield prospects.

Analysts are confident winter wheat acres will be smaller than last year, which was the second smallest crop in a century.

Gilpin agreed with that assessment.

“There just hasn’t been that market signal or incentive for encouraging producers to plant hard red winter wheat,” he said.

The U.S. Department of Agriculture is scheduled to release its Winter Wheat and Canola Seedings report Jan. 12.

Bacon also takes issue with the country’s plant protection policies, such as its insistence on fumigating shipments with methyl bromide even when there is no sign of the named pest in the country of origin.

He said there needs to be science-based rationale behind any such policies.

“Our position is still the same: there is no science-based reason why Canada should be fumigating,” said Bacon.

India recently announced it was extending a derogation to the fumigation policy that allows countries to either fumigate or pay five times the normal fumigation fee upon arrival in India. The derogation expires June 30.

The fees amount to about $750 on a 24-tonne container and $740,000 on a 50,000 tonne vessel.

He said the policy means small shippers will pay about $31 per tonne or double what the big shippers are paying.

But it’s all a moot point right now because the duties are what is preventing any trade with India.

“That’s where you start getting into some serious cash,” said Bacon.

Canada isn’t the only exporting nation that is complaining about India’s actions. Articles published in a recent edition of a newsletter produced by the India Pulses and Grains Association indicate there is unrest in places like Myanmar and Africa.

Shyam Narsaria, chief executive officer of Arvee International Pte Ltd., said India’s import quota restrictions on pigeon peas and beans have sent Myanmar’s pulse market into “disarray.”

“Concerns among local traders over the potential collapse of the local pulses and bean market are mounting,” he wrote.

Bharat Kulkarni, director of Stalwart Consultancy Services, said India has long been aggressively encouraging African governments to grow more pulses and then “stunned everyone” by imposing quantitative restrictions on pigeon peas, black matpe, or gram, and green mung.

“The market in East Africa has hit rock bottom in terms of pulses with hundreds of farmers and their governments clueless on how to find a market for pulses,” he said.
Where will shrinking pulse acreage go in 2018?

MARKET WATCH

D'ARCE MCMILLAN

Canadian pulse seeded area will likely be down significantly in 2018 because neither prices nor demand is compelling as in previous years.

The trend so far this season is downward except for peas — but that was still the second largest ever. That is the main reason for the lack of sales to India.

The duties and fumigation issues that India's government imposed are only a side note to the key issue of ample domestic supply and India farmer anger at falling prices. With India out of the market, Canadian-year-end lentil stocks are expected to rise to 750,000 tonnes, or about four months worth of demand, and a million tonnes or more of peas. In both cases, the stocks-to-use ratio would be record high.

India's demand is unlikely to come back soon.

India's government estimates that winter crop all-pulse area stands at 38.3 million acres, up nine percent from last year. Chickpea area, the main winter pulse, is 13 percent higher year-on-year. Harvest begins in March, and unless there is a sudden weather disaster, India is on its way to another bumper crop.

India's ultimate goal in the pulse sector is to be reliably self-sufficient, but analysts warn of the danger of permanently cutting off imports.

G Chandrashekhar, who often writes about the sector in the Hindu Business Line, made that warning last week in a column. He said imports could be better regulated if the right to import was limited to actual users — that is, pulse processors. It would remove speculators who import and hoard product in the hope of profiting when the prices rise.

I don't know if this would work, but his comments about the danger to the Indian government of blocking imports long term are wise.

A bumper pulse crop in India has reduced the need for crops grown in Canada, which is expected to reduce acreage.

HEDGE ROW

ED WHITE

First, canola futures slid from $520 per tonne to lower than $490. Then prices bounced back to almost $500.

How do you get a sense of the price range from that? What does the slide mean?

What does the bounce-back mean?

Lots of farmers and marketers are pondering that after December’s drama. The same happened after the September-October rally, which took canola from $490 to $520.

Right now it’s hard to get a sense of direction from the canola market, with such powerful short-term trends — unless you stand way back from the action. Then you’ll notice that canola is still within a range it has inhabited for many months.

Can we just assume that the $480 to $520 range is still intact and price accordingly? That would be easy, with no compelling evidence to the contrary. That’s what many are doing. When canola gets to around $520, they sell some. When it gets down below $500, they sell only what they need to move.

New crop 2018 pricing is similar: futures are hanging around the $500 mark.

“It’s not just a canola issue, it’s all oilseeds,” David Derwin, a risk management specialist with P.I. Financial, said when I chatted with him the other day.

Outside of the short-term rallies and sumps, it’s been a period of doldrums.

That has made it a great time for cautious risk management. With prices so range-bound, option premiums are relatively cheap, so some brokers are buying their clients price insurance above the $500 level with puts. Others are buying calls in order to allow farmers to sell now and still have a chance at the gains of a possible future rally.

That doesn’t mean people should lie back and assume the $480 to $520 range will hold for the rest of the crop year. As canola prices slid through December, everybody was watching the $475 to $480 level to see if it would hold or break. If it had broken, then anything could have happened.

Beneath $480, one can look at support at $450, or $400. Falling to $400 seems far-fetched right now, but as Derwin noted, “there’s nothing to stop canola getting down to $400.”

And broker Errol Anderson already thinks the range has moved, even though it will be a while to see if this is borne out.

“I think the March contract will respect the $500 area as the top end,” he told me.

He still sees $480 as the bottom of the range, so if it’s a narrower range he’s looking at.

The problem with ranges is you can never be sure whether you’re actually living within one until they’re over. You can look back and see them on the charts, and they seem pretty clear, but you can’t look forward into the future to see if recent apparent trends will continue for long enough to truly prove that a range was in play or to show when they end.

However, as traders always like to say, what we have is what we have, and you have to work with it.

And as always, the trend is your friend.

Until the end, when it bends.

ed.white@producer.com
New plants ease hog market worries

U.S. herd growth should be offset by new demand from extra slaughter capacity

BY ED WHITE WINNIPEG BUREAU

Farmers should get a year of strong packer demand and aggressive cash prices — unless U.S. President Donald Trump blows up the North American pork market.

That’s how Hams Marketing’s director of risk management, Tyler Fulton, looks at 2018.

“I’m pretty optimistic that these new plants will shake up the dynamic enough that we will be looking at significantly tighter packer margins,” said Fulton, referring to the new slaughter plants that are coming into full production and creating lots of competition for live hogs.

Farmers should not have to worry about a squeeze in the fourth quarter of 2018, the traditionally most risky time for the market, because of all the new capacity, Fulton said.

That makes the steady growth of the U.S. hog herd a less alarming prospect than it would be without those new packing houses.

The U.S. Department of Agriculture in December found that the U.S. herd is still expanding and might even be expanding at a slightly faster clip. U.S. farms weaned 33.4 million pigs between September and November, which was a three percent increase year-to-year.

As well, Fulton described U.S. consumer demand for pork as “rock solid.”

As long as that continues, the increasing amounts of bacon, ribs, shoulders and hams should be able to be mostly consumed within the United States, although U.S. pork will still need the export market to clear the growing supplies.

However, everything could go sideways if Trump ends the North American Free Trade Agreement, Fulton fears. Mexico is a major buyer of U.S. pork, and if the U.S. and Mexico get into a trade war or if trade flows are simply interrupted or slowed, the Mexico–destined pork could begin piling up in the U.S., creating a domestic glut.

That would be bad for Canadian pork prices because Canadian prices are based on the U.S. market and millions of Canadian hogs and many tonnes of Canadian pork end up in the U.S.

If trade wars break out in North America, there could be all sorts of repercussions.

That’s why Fulton, like most agri–culture market analysts on both sides of the border, are hoping NAFTA manages to survive and trade tension can dissipate.

“I want a deal so that Mexico doesn’t retaliate with some tariffs on U.S. pork,” said Fulton.

“I just want more of the same.”

Strong consumer demand for pork also bodes well for hog prices. [FILE PHOTO]

U.S. PIG HERD CONTINUES TO EXPAND

The U.S. Department of Agriculture says that the U.S. pig herd continued to expand between September and November, with the total herd growing by about three percent from year–before levels. Strong demand and unimpeded exports will be needed to consume all the pork.

Hogs and pigs on farm as of Dec. 1 (million head):

<table>
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<th>Year</th>
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<tbody>
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<td>2017</td>
<td>67.6 million</td>
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<tr>
<td>2018</td>
<td>69.5 million</td>
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Source: USDA | CAROL DICK GRAPHIC

WP LIVESTOCK REPORT

HOGS RISE

The U.S. national live price average for barrows and gilts was US$47.57 per cwt. Jan. 5, up from US$45.14 Dec. 28.

U.S. hogs averaged $64.01 on a carcass basis Jan. 5, up from $57.95 Dec. 28.

The U.S. pork cutout was $79.07 per cent. Jan. 5, up from $78.03 Dec. 28.

The estimated U.S. weekly slaughter to Jan. 6 was 2.151 million, up from 2.102 million the previous week.

Slaughter was 2.087 million last year at the same time.

In Canada, the Signature Five price was C$140.91 per 100 kilograms Jan. 6, up from C$137.31 the previous week.

On a per hundredweight basis, the price was $63.92, up from $62.37.

BISON STEADY

The Canadian Bison Association said Grade A bulls in the desirable weight range sold at prices up to C$67 per pound hot hanging weight.

U.S. buyers are offering US$47.50 or more with returns dependent on exchange rates, quality and export costs.

Grade A heifers sold up to C$6.10 per 100 kilograms Jan. 6, up from C$5.50 the previous week.

Animals outside the desirable buyer specifications may be discounted.

LAMBS RISE

Ontario Stockyards Inc. reported that 659 sheep and lambs and five goats sold Jan. 2. All lambs sold actively with heavy lambs selling $5–$7 higher. Light lambs sold just steady. Good sheep sold $5–$10 higher. Goats steady.

CANFAX REPORT

FED MARKET STABLE

The Canfax weighted average prices for fed steers and hifers were unchanged this week at $167.44 per hundredweight for steers and $166.59 per cwt. for hifers.

Canfax says the market remains strong and packers have been actively buying.

Market-ready supplies are expected to remain manageable through January. Compared to the Nebraska market, this week’s Alberta fed price is estimated to be at $114 per cwt. premium. Ontario fed prices have increased about $10 per cwt. since the last report at the end of December, but Ontario live prices remain at or below the Alberta discount.

EXPORT NUMBERS MIXED

For the week ending Dec. 23, live cattle exports to the United States from Western Canada totalled 3,792 head of fed cattle, 1,568 slaughter cows and bulls and 191 feeders. Fed numbers are up five percent year–to–date, while feeder numbers are down 34 percent.

No information was available this week on slaughter cows and bulls or on feeder and stocker cattle.

CUTOUTS STRENGTHEN

In U.S. markets, choice cut–out values strengthened last week with moderate demand on a light to moderate offering. Choice was listed at US$288.67, up from US$262.28 the previous week. Select was US$200.86, up about US$10 from the previous week’s US$190.91. Canadi–cut–out information was not available.

This cattle market information is selected from the weekly report from Canfax, a division of the Canadian Cattlemen’s Association. More market information, analysis and statistics are available by becoming a Canfax subscriber by calling 403–275–5110 or visit www.canfax.ca.

Canola higher but outlook still bearish

The general outlook remains relative bearish for canola, despite the early 2018 pop higher, with the nearby old/new contract starting to build something to keep an eye on.

As recently as November 2017, the July 2018 canola contract routinely traded at a premium of C$30 to the November 2018 contract. That was before Statistics Canada raised its production estimates and concerns over tight supplies by November.

The old/new crop spread hit a session low of C$2.50 over at one point during the week, but eventually settled with the July contract trading at a premium of C$7.90 per tonne over the November contract.

In addition to expectations that canola supplies won’t be that tight by the end of the crop year, the narrowing old/new crop spread also ties into ideas that farmers will likely be selling a big canola crop against this spring.

While prices may not be that great, the alternatives are worse in many cases, and the latest forecasts suggest another large canola crop on the horizon in 2018. A bigger canola crop under the near term, barring activity outside markets.

Movement in the Canadian dollar could be another bearish influence, if the first trading week of 2018 is any indication.

The currency climbed well above the US$0.80 cent mark on some favourable economic data and could be due for some more strength if the improving economic indicators also result in an increase in interest rates from the Bank of Canada.

In Chicago, the excitement these days is all weather related.

Argentina is either too dry or seeing just enough water, depending on the day and the forecast. South American soybeans are still being planted in some areas, and the day–to–day shifting weather outlooks that sway the futures could lead to longer–term trends once the outlook from the continent gets a bit clearer.

The U.S. Department of Agricultural report released Jan. 12, including quarterly stocks, winter wheat acres and updated production estimates, which could provide some nearby direction for the grains and oilsides.

Wheat futures were also keeping a close eye on futures with cold temperatures across the U.S. Plains raising concerns over winter–kill. However world wheat supplies remain large, and all three U.S. wheat contracts ran into resistance and drifted lower in the latter half of the week.
Residue testing, traceback critical to Canada’s reputation

Richardson International’s assertion that its canola farmers can detect trace pesticide levels is likely to cost the company millions of dollars over the long term, according to a new report by the Canadian Grain Commission. The report, which is based on a survey of canola farmers, found that 80 percent of farmers are unable to detect trace pesticide levels, which are often used as a proxy for residue testing.

The report, “The Trace Back Ability,” released in January 2018, highlights the challenges faced by canola farmers in detecting trace levels of pesticide residues. The report found that 45 percent of farmers do not have access to a suitable testing method, while 25 percent do not have the necessary equipment to perform testing. In addition, 30 percent of farmers do not have the necessary training to interpret test results.

The report also found that the lack of trace-back ability is a significant challenge for canola farmers. The report states that “The trace-back ability highlights a significant commitment on behalf of the grain company, requiring additional storage space for samples and the determination to chase down individual producers.” The report also notes that “The trace-back ability illustrates a significant commitment on behalf of the grain company, requiring additional storage space for samples and the determination to chase down individual producers.”

The report recommends that the government develop a national food policy that addresses the challenges faced by canola farmers. It suggests that a national food policy could include incentives for farmers to adopt trace-back testing, as well as increased investment in research and development to improve testing methods.

As a result of the report, the Canadian Grain Commission has announced plans to develop a national food policy that will address the challenges faced by canola farmers, as well as other agricultural sectors. The commission has also established a task force to develop a national food policy that will address the challenges faced by canola farmers, as well as other agricultural sectors.

The report has been widely reported in the media, with many news outlets highlighting the challenges faced by canola farmers. The report has also been widely shared on social media, with many farmers expressing their support for the recommendations.

The report is a first step in developing a national food policy that addresses the challenges faced by canola farmers. It is hoped that the government will take the recommendations of the report seriously and work with the canola industry to develop a national food policy that will address the challenges faced by canola farmers.

Kelsey Johnson is a reporter with iPolitics, www.ipolitics.ca.
Weed control on the Prairies continues to evolve

BY KEVIN HURSH

It’s creeping upon us: herbicide resistance is changing the way we think about weed control. The warnings have been coming for years, but it always seemed like someone else’s concern, or we thought the problems would be solved by new herbicide chemis- tries before it became serious. Even now, with herbicide resis- tant weed issues rapidly escalating, it’s hard to take the advice and use two or three different modes of action to control a weed problem. That’s expensive and time con- suming, so most producers don’t take the advice approach until they must.

As for new herbicide chemistries, there aren’t many. More often the industry is going back into the tool- box of bygone years to use old products in new ways. Old prod- ucts such as Avadex for wild oat control have found a new use because they have a different mode of action. Unfortunately, this approach has a couple problems: some of the old chemistries are not as safe as newer products and their continued reg- istration could be in question. As well, new use patterns can lead to new problems. Xcend soybeans in the United States are a prime example.

In addition to being Roundup (glyphosate) resistant, Xcend soy- beans are also resistant to an old chemistry known as dicamba, thereby providing a mechanism to control an ever increasing popula- tion of glyphosate resistant weeds. You can’t blame farmers for adopt- ing the new varieties to solve their weed problems.

However, dicamba, even with new formulation, is prone to vapour drift, which has resulted in thousands of crop damage claims to adjacent fields. After last year’s disaster, many states have taken steps to limit or even ban its use.

Against this backdrop, the whole industry is starting to more integrated approach to weed control.

In another example, tillage was demon- ized by direct seeding, zero tillage advocates. Now, the concept of selective tillage is gaining accep- tance. No one is advocating the kind of extensive tillage that caused dustbowl conditions in the 1980s, but tillage is no longer a weed control method to ignore.

Here’s a case where conventional agriculture is learning a thing or two from organic farmers and where technology isn’t so simple about new herbicide chemistry. For instance, performing shallow tillage between crop rows is becoming more viable as technolo- gy advances. It’s extremely rare on the grain farms of Western Canada, but it may be much more common in five or 10 years.

Long-known cultural methods of weed suppression are receiving more attention, such as an increased seeding rate and nar- rower crop rows. Intercropping, in which two crops are grown togeth- er, is also viewed as a way to combat weed pressure.

Crop rotation is part of the solu- tion because different crops allow the rotation of different herbicide groups. Unfortunately, many of the recent crops have fewer herbicide options, which might hinder their adoption.

You may have seen reports of the Harrington Seed Destructor from Australia, which is pulled behind the combine to crush weed seeds. Although expensive, this proactive approach to weed control is receiv- ing a lot of research attention.

Nature will always find a way. Many weed populations eventually evolve to become immune to a per- fect herbicide group. From there, you can get populations that become immune to two or more modes of action.

It’s predictable, and we were warned. Herbicides will continue to be the cornerstone of weed control efforts, but non-herbicide options can’t be ignored. New approaches could develop into a growth industry over the next decade.

Kevin Hursh is an agricultural writer, consultant and editor. He can be reached by e-mail at kevinh@producer.com.

& OPEN FORUM

Omnitrax not solely to blame

BY IAN ROBSON

F or more than 100 years, the Port of Churchill on Hud- son Bay has been the gateway to northern Manitoba and com- munities in Nunavut.

Served by 820 kilometres of railway from The Pas, Man., it shipped western grain to European markets until the port was stranded, and the hundreds of remote northern communities along the railway line were left isolated as the port and railway’s private owner, Omnitrax, failed to repair the tracks after flooding in early 2016.

Despite the strategic importance of Churchill, North America’s only Arctic deep-water port, the railway line from The Pas was never easy to operate. However, the severe prob- lems and costly blunders made by past Canadian govern- ments and the current federal government under the Liberal Party’s former Minister Jean Chrétien’s government allowed Canadian National Railway, a Class I railway, to sell the Churchill line to Omnitrax in 1997 without requiring the new owner to uphold the statutory obligation to move loaded cars to their destination in a timely fashion.

At the same time, the government upgraded Churchill’s port facilities, and then gave them to Omni- trax.

The second blow to Churchill occurred when Conservative Prime Minister Stephen Harper dismantled the federal government’s board of Canadian Wheat Board in 2011 and ended its single desk sell- ing authority.

Under the CWB’s single desk sell- ing and aggregation advantage, all four ports — Churchill, Vancouver, Prince Rupert and Thunder Bay — were used strategically.

Grain grown in the Hudson Bay route catch basin was predominantly marketed through the Port of Churchill by the CWB. This low- ered handling and transportation costs and alleviated congestion to the West Coast.

Anticipating Churchill would be in trouble without the CWB’s mar- keting powers, the Harper govern- ment three private grain compa- nies up to $25 million with a five- year, $9.20 per tonne freight subdi- dy to help Omnitrax and camou- flage the fallout from destroying the CWB. Once the subsidy ended, grain companies quit using Churchill.

The dominos have fallen: the tracks need two decades worth of proper maintenance, farmers are paying higher freight rates, other routes are more congested, there are more greenhouses gas emis- sions, Churchill is suffering eco- nomic losses, and northern com- munities are cut off from essential services. Dominos will continue to fall as private grain companies avoid Thunder Bay, the next-most- expensive shipping route, further congesting the over-used west coast corridor.

Canada has lost a third of its rail- way track miles in the last three decades. Rail line abandonment has increased profitability for CN and Canadian Pacific Railway, but their gains should not be seen as an increase in overall efficiency. Farmers are paying up the costs by having to truck farther to main line termi- nals, with triple the greenhouse gas emissions per mile compared with rail transport.

In the 1980s, the public gave pri- vate railways the right to own, operate and control the Port of Churchill. Climate change will likely make it even more strategic and commercially attractive port, and an active port will revitaliz the town.

Ian Robson farms grain and cattle with his family at Delbou, Man. He is on the National Farmers Union board of directors.

Assessing future premiers

MICHAEL RAINE
MANAGING EDITOR

With slightly more than 27,125 members, the Saskatchewan Party has increased its membership dra- matically ahead of its leadership vote later this month.

And most of those members are electing Saskatchewan’s next pre- mier and setting course for the government that will last a couple of years until the next provincial election and possibly beyond.

Agriculture platforms for each of the candidates have developed, or emerged, rapidly over the past month and half.

While no one in this race in Cana- da’s most agriculturally focused province would fail to have a posi- tion on farm leadership, it would appear a couple of the candidates likely have an edge over others.

Alanna Koch is a farmer and, with a short run as the right hand as Premier Brad Wall last year, has been in agriculture her entire career, the past nine years in Saskatchewan’s agricultural bureaucracy, including deputy minister of the department.

Before that, she worked in leader- ships roles of organizations such as the Western Canadian Wheat Growers Association.

Ken Cheveldayoff worked for Westco Economic Development before getting into politics in 2002, where he has remained an MLA in Saskatchewan’s Wildrose party of conser- vancy. With several cabinet roles, his environment portfolio is the closest to agriculture than any other.

Scott Moe, with two terms under his belt as a rural MLA, has an agri- cultural department which was the minis- ter for the environment who brought in the most recent rural drainage legislation.

Interestingly, the person with the strongest urban background, it could be argued, was attracted the support and advice of two of pro- vincial agriculture’s most respect- ed individuals: current Agriculture Minister Lyle Stewart and former minister and retired MLA Bob Bjornson.

Gerd Wyant’s intentions are focused on land use, access and the rights of farmers to farm, drainage, infrastructure development and transportation, largely related to the railways.

Saskatchewan’s next premier will ride the NDP in the NDP camp, Trent Wtherospoon and Ryan Meili are fighting it out for opposition leader and potentially premier at some point. Meili, a family physician from a farm near Moose Jaw, and Wtherospoon have rural pulses, but Meili’s are spelled out as a platform that includes dropping the PST.

& OPEN FORUM

A federal government decision to allow the sale of the railway that serves the Port of Churchill and then a later decision to eliminate the Canadian Wheat Board’s marketing monopoly are blamed for the sad state of the rail line. | FILE PHOTO

A case where conventional agriculture is learning a thing or two from organic farmers and where technology isn’t so simple about new herbicide chemistry. For instance, performing shallow tillage between crop rows is becoming more viable as technolo- gy advances. It’s extremely rare on the grain farms of Western Canada, but it may be much more common in five or 10 years.

Long-known cultural methods of weed suppression are receiving more attention, such as an increased seeding rate and nar- rower crop rows. Intercropping, in which two crops are grown togeth- er, is also viewed as a way to combat weed pressure. Crop rotation is part of the solu-
Sask. growers twitch over elevator closures

Farmer says it’s ‘insane’ for elevator to close

BY BRIAN CROSS
SASKATOON NEWSROOM

Viterra is closing its grain elevator at Eyebrow, Sask., about 150 kilometres northwest of Regina, citing market conditions.

In a Jan. 8 email to The Western Producer, Viterra confirmed that operations at the 9,500 tonne facility will be suspended this spring until further notice.

Sources in the area say some growers who delivered to the Eyebrow facility will likely be forced to haul their grain an extra 100 kilometres or more to facilities at Moose Jaw, Strongfield or Herbert, (Reed Lake) Sask.

“We continuously review our footprint to ensure our assets support our focus on pipeline efficiencies and use our capital effectively,” Viterra said in the email.

“Due to current market conditions, we are suspending operations at Eyebrow effective this spring until further notice.”

“Our top priority is to provide our producer and enduser customers with the best possible service, and we must continue enhancing our competitive position in this new era in market access for Saskatchewan grain producers. She lobbied for increased rail capacity in order to get our product to market and as a farmer, she has first-hand experience balancing the challenges and opportunities that come with being a farmer.

Saskatchewan’s next premier should be someone who will continue to build on our strengths in primary and value-added agriculture, while fostering new opportunities and opening up new markets. Alanna Koch has proven time and again she has the acumen and experience to do just that. This is why on Jan. 27, I will be voting for Alanna Koch for Saskatchewan Party leader and the next premier of Saskatchewan.

Cherylyn Jolly-Nagel
Mossbank, Sask.

“This closure is insane,” said one producer, who asked that his identity not be revealed because he must still do business with Viterra.

“I can unload there faster than any other elevator... If anything, they should have been expanding it.”

The Eyebrow facility is serviced by Canadian Pacific Railway and handles primarily lentils, durum and spring wheat.

Growers in the area said they had heard rumours that the elevator would be converted to a pulse-only facility, but news of its closure came as a surprise to many.

The prospect of hauling grain an extra 100 kilometres or more will not sit well with farmers in the area, said the grower.

He said highways in the area are already in poor shape and will be damaged even further by heavy truck traffic.

Highway 42 between Eyebrow and Moose Jaw is being rebuilt but it will remain a secondary highway that’s not well suited to heavy trucks.

After the Eyebrow closure, some growers could conceivably haul their grain up to 100 km north to a delivery point at Strongfield, only to see it loaded on hopper cars and hauled by rail back past Eyebrow.

“If you look at a map... it’s easy to see why this closure makes no sense,” the grower said.

“They could easily spend some money and turn it into a viable plant.”

brian.cross@producer.com
China’s population expected to drop after 2027

Declining demand from China as population falls could have huge implications for the world’s agricultural exporters

Analysts worry that China’s demand for food will decrease if population estimates for the country prove correct. Here, shoppers check out the rabbit meat counter at a Walmart in Chongqing in central China in this file photo from 2011.

By Robert Arnason

BY ROBERT ARNASON
BRANDON BUREAU

With 2.7 billion people, China and India represent about 37 percent of the earth’s population. In comparison to Canada, those two countries have a population of 1,000 cities the size of Toronto. It’s been well reported that India will soon exceed China as the most populous country on Earth. What’s less known is that China’s population will likely peak in the next decade and could contract significantly over the next 50 years.

The United Nations, on its population division website, has a graph with potential scenarios for China. A few scenarios look like a mountain with the population peaking at 1.45 billion around 2027 and falling to 1.1 billion by 2070.

Other forecasters say China’s population could peak in the early 2020s and might drop below one billion in the next 50 years.

One factor is behind China’s declining population: birth rates. “If you go to the Chinese, their own census, they have their birth rate at 1.2 (children per woman),” said Darrell Bricker, chief executive officer of Ipsos Public Affairs, a research firm.

Without immigration, countries need women to have about 2.1 babies to keep the population at replacement levels. In certain Chinese cities, the birth rate is much lower than 2.1.

“In Shanghai, a city of 23 million, couples are not taking advantage of new rules that allow them to have two children,” the German news magazine (Spiegel) has reported.

“Chinese women here are having only 0.6 children, which is the lowest rate among all major Asian cities,” said Darrell Bricker, chief executive officer of Ipsos Public Affairs.

If China’s population does flatten and contract, it could have major implications for food exporting nations. China’s insatiable demand for food has propped up ag commodity markets for the last decade or so. Canadian agri-food and seafood exports to China doubled from 2011–15.

Assuming Chinese demand does soften, India could provide the necessary demand boost for ag commodities.

However, Bricker said India’s birth rate is lower than experts think. “The UN has India at about 2.4 or 2.5 (children per woman),” said Bricker, who was in India last year for research on a book about global population trends.

“(But) when you talk to demographers in India, their view is that the birth rate is probably closer to two.”

If that’s correct, India’s population could peak at 1.5 billion around 2035 and then drop. The low and dropping birth rates in China and India have become normal around the globe.

The UN said in its 2017 population forecast that 63 countries have fertility levels below replacement levels. That list includes some of the world’s largest countries, such as the United States, Brazil, Russia and Japan.

Nonetheless, the UN is predicting the Earth’s population will reach 9.7 billion in 2050 and 11 billion in 2100, largely because of population growth in Africa. Bricker isn’t buying it.

Birth rates are rapidly dropping in Africa, and he’s convinced that global population will peak mid-century and then decline.

“Nobody in the world is creating more kids,” he said.

“Everybody has told you that the world’s population is going to reach, by 2100, 11 billion people. That is nonsense.”

Other experts agree with Bricker.

Wolfgang Lutz, a German demographer, has said that the world’s population will peak around 2060 and then contract.

Bricker said Canadian farmers and the ag industry should pay attention to global population realities because this “stuff matters.”

Instead of talking about boosting yields and feeding 8.7 billion people by 2050, ag leaders should be focused on how the world’s population is changing.

The world is getting older and many countries will soon have huge numbers of people older than 60. Canada will likely have 12 million people older than 60, up from eight million in 2015.

“We have this idea that the population is going to continue to grow, just like it is today,” Bricker said.

“If you change the nature of people, you change the nature of demand…. What do old people want? Because there are tons and tons of them and they have all the money.”

Robert Arnason producer.com

China is the most populous country in the world, for now. Projections from the United Nations suggest China’s population will peak at 1.45 billion around 2025 and then decline for the rest of the century, possibly dropping below one billion people.

### CHINA: TOTAL POPULATION

China is the most populous country in the world, for now. Projections from the United Nations suggest China’s population will peak at 1.45 billion around 2025 and then decline for the rest of the century, possibly dropping below one billion people.

Go to LetNothingSlowYouDown.com.
Easing U.S. wheat’s entry into Canada called priority

BY ED WHITE
WINNIPEG BUREAU

Fixing the blockage of American grain into the Canadian grain elevator system might be the kind of thing that helps save the North American Free Trade Agreement, says a Canadian trade analyst. However, failing to resolve it could help push NAFTA talks over the edge, worries a southern Manitoba farmer.

“I’m actually not worried about grain coming north,” Gunter Jochum said at the Fields on Wheels conference in December. “I’m a lot more worried about this non-tariff trade barrier becoming such an irritant that it prevents me from accessing this very important market south of the border.”

A number of speakers at the conference agreed that the regulatory hurdles faced by American grain delivered to Canadian elevators can and should be fixed. With NAFTA renegotiations leading to a lot of tension and uncertainty between Canada and the United States, resolving this particular border issue could help improve the prospects for saving NAFTA, said Carlo Dade of the Canada West Foundation.

“We’re going to have to give the Americans some wins,” he said. “This is something that’s been hanging around. It’s low-hanging fruit.”

Indeed, the issue would have disappeared if the previous Conservative government had managed to get legislation fixing the problem passed by the House of Commons. However, the 2015 election happened before the legislation could pass.

There are plans to get the issue sorted out, but progress is slow because it is not a major priority in Ottawa today, a number of speakers and attendees at the conference noted.

American grain can be delivered to Canadian grain elevators, but it cannot be graded as Canadian. That effectively means it has to be graded as feed and cannot be included in export shipments of Canadian grain. It also means grain companies need to segregate U.S. grain from Canadian grain, which is such a hassle and risk that it has virtually shut down shipments of American grain to Canadian elevators. Meanwhile, Canadian farmers have been delivering millions of tonnes of grain to U.S. elevators.

American grain can be shipped to Canadian processors, and it can be sold to other buyers based on specifications.

Collin Watters, executive vice-president of the Montana Wheat and Barley Commission, said the border blockage is an irritant to northern tier growers that should be eliminated. American farmers feel their grain is being treated unfairly when it can’t be delivered while they see Canadian farmers delivering to their local points in the U.S.

“It doesn’t happen,” he said. Jochum said clearing the blockage would reduce tensions within a relationship Canada needs to maintain.

“No one wins with a trade irritant. It’s a lose-lose situation,” said Jochum, who farms west of Winnipeg.

“The importance of this relationship cannot be overstated. ... The one next door is the one we should have the strongest relationship with.”

ed.white@producer.com

Restricting U.S. wheat imports while Canada enjoys unrestricted access to the United States was a major topic of conversation at a recent farm conference. | FILE PHOTO

Court date nears for former Sask. cabinet minister

Bill Boyd charged with cultivating native grass and disturbing river bank

BY BRIAN CROSS
SASKATOON NEWSROOM

Bill Boyd, a farmer from Eston, Sask., who also served as a cabinet minister under Saskatchewan Premier Brad Wall, is scheduled to appear in provincial court Feb. 6 to answer to charges under the province’s Environmental Protection and Management Act and Wildlife Protection Act.

Boyd, a founding member of the Saskatchewan Party, was charged
in 2017 after sensitive lands were altered near Eston, about 200 kilometres southwest of Saskatoon.

One charge alleges that Boyd cultivated an area of native grassland habitat.

The other three charges stem from excavation work that took place along the banks of the South Saskatchewan River, about 25 km south of Eston.

The charges allege that Boyd altered the river bed and removed vegetation from the banks of the river.

The supposed violations took place near a proposed irrigation project that Boyd had been promoting.

Boyd was removed from the Saskatchewan Party caucus last year after the province’s conflict of interest commissioner raised concerns about a business trip that Boyd had taken to China.

Conflict of interest commissioner Ron Barclay said Boyd used Government of Saskatchewan logos on materials that were used to promote the irrigation project to potential Chinese investors, even though the project was not endorsed by the province and did not include any direct government involvement.

Boyd said he made it clear to potential investors that the project was a private sector initiative and that he was not acting on behalf of the province.

Instead, he was promoting the project on behalf of Modern Hi-Efficiency Agricultural Corp., a Saskatchewan-based company that was backing the project. Modern Hi-Efficiency Agricultural Corp. has since changed its name to AgroTarget Corp.

According to the CBC, Chinese investors were told that a $300,000 investment in the Eston irrigation project would earn them a share in equity and might help them gain permanent citizenship into Canada.

Promotional materials acquired by The Western Producer show the proposed irrigation project was to be constructed on land that was either owned or managed by Boyd, his son, Regan, or his son’s numbered company, 101140208 Saskatchewan Ltd.

Boyd is scheduled to appear in Provincial Court in Kindersley.

brian.cross@producer.com

CONTINUED FROM PREVIOUS PAGE

BILL BOYD
FORMER SASK. CABINET MINISTER

It’s hard to imagine that one small seed could hold so much promise, but it does. And when you consider the importance of having a successful season, a cereal seed treatment you can rely on makes a huge difference.

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Raxil® seed treatments provide first-class disease control and a faster, stronger emergence that helps you realize the full potential of your crop.

Every Seed Counts

It’s hard to imagine that one small seed could hold so much promise, but it does. And when you consider the importance of having a successful season, a cereal seed treatment you can rely on makes a huge difference.

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Bayer SeedGrowth
Scholarships among initiatives the industry hopes will attract more young people

Canada’s dairy industry is a stable source of good and cutting-edge skilled jobs, but that’s not something a lot of young people realize, says Canadian Dairy Commission chair Alistair Johnston.

“When you go to high schools now and you... ask them, ‘what are you going to do when you’re done high school,’ who says they want to be a dairy technologist or a dairy scientist or a food scientist, even?” Johnston said at the recent Manitoba Dairy Conference.

“It’s a tough row to hoe to get these kids out and into our organizations to build the next generation of what we’re trying to build as an industry.”

Johnston said the problem with dairy’s lack of interest to young people is compounded by the shrinking of academic support for dairy education and research. At one time dairy education was common in Canada, Johnston said, with “probably 12 dairy faculties across the country” when he arrived 30 years ago. Now the number of “full service” faculties for both on-farm production and processing can probably be counted “on the fingers of one hand.”

The commission is planning to fund a number of initiatives to try to reverse the decline in support and interest in dairy education and research. “We’re actually going to donate money,” said Johnston.

BY ED WHITE
WINNIPEG BUREAU

Some will be for scholarships. Other funds will help develop “world-class scientific curricula, Johnston said students helped with scholarships tend to stay within the food industry. Getting those people into the industry in the future requires helping them now. “If we’re going to build this new age, contemporary industry that is suited to Canada and helps it be competitive around the world and domestically... we are going to have to have capable young men and women working in our industry,” said Johnston.

Meanwhile, : “It’s a tough row to hoe to get these kids out and into our organization to build the next generation of what we’re trying to build as an industry.”

Johnston said the problem with dairy’s lack of interest to young people is compounded by the shrinking of academic support for dairy education and research. At one time dairy education was common in Canada, Johnston said, with “probably 12 dairy faculties across the country” when he arrived 30 years ago. Now the number of “full service” faculties for both on-farm production and processing can probably be counted “on the fingers of one hand.”

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Companies name two new spud varieties

Two new potato varieties have recently been given names reflective of their development by Agriculture Canada. AAC Confederation and AAC Canada Gold-Dorée were named by Progest 2001 Inc. and Canadian Eastern Seed Growers, respectively. The AAC in their names refers to Agriculture and Agri-food Canada. Progest is based in Sainte-Croix, Que., and CESG is based in New Brunswick.

Agriculture Canada said in a news release that the varieties are newly licensed and that both companies think the new varieties could rival Yukon Gold in popularity.

Dr. Benoit Bizimungu, Agriculture Canada’s chief potato breeder, said both varieties have good yield and disease resistance profiles.

“A lot of work goes into developing... it is no surprise that the potato was taken up so quickly by the industry because it has great attributes.”

Andre Gagnon, president of Progest, said AAC Confederation has good taste and texture that should appeal to consumers. As for AAC Gold-Dorée, CESG co-owner Andre Cote said he and his brother, the other co-owner, were inspired by the spud’s colour. “We chose AAC Canada Gold-Dorée for its golden flesh and its golden potential as a winner in the markets,” Cote said.

Both companies expect to start selling seed for the two varieties by 2020.

Agriculture Canada releases 10 to 15 potato variety selections a year under the Accelerated Release Program. They are then considered by the industry, which selects some for field trials and can bid for sole evaluation rights if the varieties meet their needs and expectations.
Vintage food makes a comeback

The return of food fashions that have gone out of style is only one of the trends turning the industry on its ear

BY WILLIAM DEKAY

Consumers are confusing unprocessed with fresh when it comes to food, said a registered dietitian, author and blogger.

“I think they have this romantic idea that they want things fresh and as unprocessed as possible,” Carolyn O’Neil of Atlanta, Georgia, told the Farms at the Table conference, which Farm and Food Care Saskatchewan organized in Saskatoon late last year.

“There is no definition of fresh because wine is processed, bread is processed, cheese is processed,” she said.

O’Neil, whose presentation touched on emerging food and nutrition trends, said she finds it ironic that the home canning comeback is being driven by people who are trying to steer clear of processed food.

“Guess what, that’s a process, and you’re also doing something for yourself,” she said.

As producers, Hanley said it’s important to be aware of different consumer trends and choices and what they view as healthy to eat.

Buying local directly from the producer is a rising trend that stood out for him. However, it’s important that consumers recognize that local doesn’t necessarily mean homegrown.

“IT may be outside their boundary and they have to recognize that the producer is providing that local choice or doing it in the best interest of the consumers,” he said.

“As a producer, I’m going to say all food is safe,…’ If I grow the produce, I’m going to feed my family. I’m going to feed someone else’s family, with the same producer because I’m trying to do it in the best interest of everyone.”

While average urban consumers have a higher level of education than previous generations, Grant Wood from the University of Saskatchewan’s plant sciences department said they lack general information about food production.

He said it’s mostly up to commodity organizations, universities, and food organizations to help get that information out.

“The problem is how do you inform, educate and excite the person who isn’t really wanting to be informed. People are making decisions based on hearsay, and that’s a problem,” he said.

“It’s only when you get something happening that there’s a big splash in the news that they figure out they should know something.”

Carolyn O’Neil

ON THE FARM

An Alberta family that is getting out of cattle to concentrate on crop diversification is confident it is making the right decision.

A NEW DEFINITION OF HEALTHY FOOD?

For a third of consumers, a healthy food is defined by what it does NOT contain. In a 2016 survey, consumers were asked which attributes they associate with healthy foods. Here’s how they answered (respondents could select more than one answer):

- Does not contain (or has low levels of) certain components 35%
- Good for you 18%
- Contains certain foods/components 17%
- No artificial ingredients or additives 14%
- Natural 10%
- Unprocessed/unadulterated 10%
- Simple/few ingredients 7%
- Organic 7%
- Fresh 6%
- Nutritious 5%
- Other 17%
- Don’t know 8%

Source: Food & Health Survey 2016, International Food Information Council

The proof is in the pudding in terms of nutrition. Plant-based products are in fashion, and it’s really a product of people going there,” she said.

"They have customers and that’s why they’re there. They (millennials) may be looking at food bloggers for recipes, but they’re dining out.”

Young consumers enjoy experimenting with smaller portions and shared plates with different tastes and flavors.

“The problem is how do you inform, educate and excite the person who isn’t really wanting to be informed. People are making decisions based on hearsay, and that’s a problem,” he said.

“IT’s only when you get something happening that there’s a big splash in the news that they figure out they should know something.”

william.dekay@producer.com
New things to try at the beginning of a new year

**BREAKFAST BOWLS**

Don't want to rev up the blender for a winter morning smoother? Try kick-starting your day by filling a smoothie bowl with your yogurt of choice, preferably a high protein variety such as Greek, which is low in sugar. I prefer plain, vanilla or honey flavoured. Sprinkle approximately two spoonsful of ground flax over the yogurt mix. Top with granola, chopped nuts and any berries that are available. It is nutritious, colourful and substantial way to start your day.

**FLAX BANANA BREAD**

1 3/4 c. unbleached white flour 425 mL
1/4 c. ground flax seed (ground in a coffee grinder or Magic Bullet) 175 mL
3/4 c. sugar 175 mL
1 tsp. baking powder 5 mL
1/2 tsp. baking soda 2 mL
1/2 tsp. salt 2 mL
2 eggs 2
1/3 c. oil 75 mL
1 1/3 c. very ripe bananas, mashed 2-3

**Topping:**
1/2 c. chopped nuts 125 mL
1/4 c. brown sugar 60 mL
1/2 tsp. cinnamon 2 mL

Preheat oven to 350 F (180 C). Grease an 8 1/2 x 4 1/2 inch loaf pan. Set aside.
Mix together flour, flax seed, sugar, baking powder, baking soda and salt in a bowl. Beat together eggs and oil in a separate bowl.
Add dry ingredients and mashed bananas alternately to egg and oil mixture, stirring until dry ingredients are moistened. Pour into prepared pan.
Mix together toppings and spread over batter in loaf pan. Pat down firmly into batter or swirl top into batter with knife.
Bake at 350 F for 1 hour or until a toothpick inserted comes out clean. Enjoy.

**REFRESH YOUR SURROUNDINGS**

As a form of winter renewal, bring nature indoors in the form of fresh living plants or simply a fresh flower arrangement.
Use the plants indoors not only to spruce up your home for a fresh scent. This is an excellent way to boost your sense of renewal, boost your benefits by adding 1 cup (250 mL) of Epson salts to your bath water. Orange oil is known for its anti-inflammatory and gentle cleansing properties.
Also, consider a Natural Citrus bodywash/bubble bath product by Kirkland which has an uplifting effect without you doing any mixing yourself. Many bath products contain harsh ingredi- ents. Do not soak in any harsh ingredi- ents. Also, try orange oil in your diffus- ers or add a few drops to a spray bottle filled with distilled water. Spritz throughout the spaces in your home for a fresh scent. This is a much healthier choice than using commercial air fresheners.

**SOME NEW INFORMATION**

If preventive health and healthy eating/aging is your aim, pick up two great reads by Natasha Turner: the Carb Sensitivity Program and her newest publication, The Hormone Boost.
If you’re looking for brain health information, check out The End of Alzheimer’s by Dale E. Bredesen.

**FLAX OATMEAL COOKIES**

The oats, flax and nuts give these cookies “stay power” and nutrition. They are an old standby at our house.
1 c. butter, softened 250 mL
1 c. brown sugar, packed 200 mL
1/2 c. white sugar 125 mL
2 eggs 2
1 tsp. vanilla 5 mL
1/2 tsp. ground cardamom 2 mL
1 tsp. each of baking soda and salt 5 mL
1/2 tsp. baking powder 2 mL
1/2 c. oatmeal 250 mL
1/2 c. ground flax seed 125 mL
1/2 c. chopped walnuts 125 mL
1/2 c. almonds 250 mL
1/2 c. pecans 250 mL

Preheat the oven to 350 F (180 C). Cream together the butter and sugars until smooth. Beat in the eggs one at a time and then add the vanilla. In a separate bowl combine the flour, oatmeal, ground flax seed, baking soda, baking powder and salt. Add to the creamed mixture until just blended. Stir in the nuts and chocolate chips. Form into balls and place on an ungreased cookie sheet. Bake for 10 to 12 minutes. Yield: 72 cookies.

**A NEW SCENT**

A warm bath after a long day is very soothing. The warm tempera- ture prepares your body for restful sleep. You can even multi-task by combining reading time with tub time as you wind down.
Boost your benefits by adding 1 cup (250 mL) of Epson salts to your bath water and let the magnesium con- tent of the salt take your aches and pains away.
To boost your sense of renewal, try using a few drops of orange oil in your bath water. Orange oil is known for its anti-inflammatory and gentle cleansing properties.

**AN IMPROVED METHOD OF PREPARATION**

Brining boosts flavour and mois- ture content. This extra prepara- tion step earned a thumbs up in our test kitchen.

**BRINED PAPRIKA ROASTED CHICKEN BREASTS**

4 boneless skinless chicken breasts with uniform thickness, brined 4 (see below)
1 tsp. melted butter 15 mL (or oil)
1 tsp. salt 5 mL
1/2 tsp. ground black pepper 2 mL
1/2 tsp. garlic powder 2 mL
1/2 tsp. paprika 2 mL

**Note:** Some meat products are sold pre-brined. Check your packag- ing before doing this step.
To brine the chicken, simply fill a large bowl with warm water. Stir in a handful of salt until it mostly dis- solves, add your chicken breasts and let them sit in the salt water for at least 15 minutes to an hour.
If you are preparing ahead of time, cover and refrigerate the chicken and salt water for up to four or five hours. When it is time to prepare your chicken, remove from the refrigerator, rinse with cold water and pat dry.
Preheat oven to 450 F (230 C)
Brush the chicken breasts with melted butter or oil for flavour and to seal in moisture and place in a large baking dish. Combine the salt, pepper, garlic powder and paprika and rub onto the chicken. Roast for 15 to 18 minutes. Use a cooking thermometer to measure the temperature of the chicken in order to tell if it is fully cooked (160-170 F). When cooked, cover and let rest for five to 10 minutes. Enjoy sliced or whole.
You can also prepare these for eating throughout your busy week by refrigerating in a sealed con- tainer for up to three days. Side with fresh greens, steamed vegetables and baked potatoes or steamed rice. Source: adapted from www.gimmesomeoven.com.

**A NEW RECIPE**

**MUSHROOM BEEF SLIDERS**

These little sliders are a step up from your basic burger. The mush- room added an interesting flavour.
1/2 c. bread or cracker crumbs 125 mL
1/4 c. dried and very finely chopped mushrooms* 60 mL
1 beaten egg 1
2 tsp. milk or water 30 mL
2 tbsp. finely chopped green onion 60 mL
1 tsp. prepared mustard 15 mL
1 clove garlic minced or 1/4 tsp. garlic powder/seasoning mix 1 mL
1/4 tsp. salt (regular or seasoned salt) 1 mL
1/4 tsp. pepper 1 mL
1 lb. ground beef 454 g
60 mL
1/4 c. brown sugar (about four minutes per side) or until there is no pink in the centre, and there is a juices. Place it in a baking dish and cover with foil. Bake 55 to 60 minutes. It yields one loaf.
Flax recipes source: Adapted from Flavia’s Flax flavour from the Flax Council of Canada. For more information on flax, visit www.flaxcouncil.ca.

**GENERAL Baking Timing Tips**

- Check for doneness from the edge of the loaf.
- Use a cooking thermostat to check the temperature of the chicken.
- Use a baking thermometer to check the temperature of the bread.
- Use a baking thermometer to check the temperature of the beef.
- Use a baking thermometer to check the temperature of the mushrooms.
- Use a baking thermometer to check the temperature of the spinach.
- Use a baking thermometer to check the temperature of the potatoes.
- Use a baking thermometer to check the temperature of the tomatoes.
- Use a baking thermometer to check the temperature of the carrots.
- Use a baking thermometer to check the temperature of the cucumbers.
- Use a baking thermometer to check the temperature of the onions.
- Use a baking thermometer to check the temperature of the bell peppers.
- Use a baking thermometer to check the temperature of the green beans.
- Use a baking thermometer to check the temperature of the celery.
- Use a baking thermometer to check the temperature of the broccoli.
- Use a baking thermometer to check the temperature of the cauliflower.
- Use a baking thermometer to check the temperature of the asparagus.
- Use a baking thermometer to check the temperature of the Brussels sprouts.
- Use a baking thermometer to check the temperature of the kale.
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Taking a vacation: independent or escorted group travel?

Tales From the Road

Arlene & Robin Karpan

Which is best, travelling on your own or taking a group tour? The answer is—it depends—on a lot of things.

An important factor is whether you enjoy planning an independent trip, and are willing to invest the time and effort. The good news is that in recent years, the proliferation of online resources such as TripAdvisor and travel blogs has made it much easier to get information, especially from other travellers who relate first-hand experiences and pass along recommendations.

Some places are easier than others to go on your own, such as to well-travelled destinations in Europe or Southeastern Asia. Generally, the farther you get off the beaten track, the more sense it makes to take an organized excursion.

Organized group travel has a lot of advantages for some people. Perhaps you enjoy the social aspect of group travel, the convenience of English speaking tour guides and drivers, and the comfort of staying in good hotels. An organized tour can pack a lot into a short period. Going on your own takes longer because you have to find your way around; there’s no tour bus waiting at your hotel every morning. On the other hand, it allows you to travel at a more leisurely pace. Sleep in if you like, spend all day sight-seeing or loafing on the beach—it’s all up to you.

Our personal preference is to travel independently for the most part, but to supplement it with organized excursions along the way. For example, when we travelled to Bolivia and around parts of the country on our own, we also took an organized four-day excursion through the wild and remote southwest of the country, which was the highlight of the trip. We often take guided day tours on our travels as well. This mix and match approach seems to suit our style, but it may not be for everyone.

When it comes to cost, we find we can travel to many parts of the world independently for less than if we choose to travel as an organized group. When we travel independently, we have more control over what we do and see, and it’s usually cheaper to do things on your own. The bottom line is that one style of travel isn’t inherently better than another. It’s up to you and your style.

A willingness to plan is part of the decision on whether to travel on your own or go with an escorted group.

Arlene and Robin Karpan are well-travelled writers based in Saskatchewan. Contact: travel@producer.com.

“It’s important for us to connect with those who aren’t involved in ag and explain what agriculture today really looks like.”

Pamela Ganske, Agvocate

Learn more at AgMoreThanEver.ca
What to know when buying medications online

Q: How safe is it to buy the prescription drugs I need online? Is it legal in Canada? Sometimes it is difficult to get a timely doctor’s appointment and it is tempting to try and buy the medications I need online. I haven’t done it yet.

A: There are several reasons why a person may turn to the internet to buy prescription drugs. People in the United States have to pay higher prices for most medications than we do in Canada, so they may turn to on-line purchases. Someone may also be embarrassed to see a live doctor if they have a sexually transmitted disease or erectile dysfunction, or it may be a matter of convenience due to a long wait for a medical appointment.

However, turning to the internet who try to diagnose medical conditions can be risky. First of all, there are reasons why doctors want to see you before refilling your prescription because it is inconvenient or difficult to get to your pharmacy, you might ask the pharmacy if it will deliver to your door. Many drug stores offer a free or inexpensive delivery service to seniors or disabled individuals.

It is not illegal to deal with reputable online drug stores located in Canada if you already have a doctor’s prescription or if it is non-prescription medication. However, Health Canada suggests that you not do business with a drug supplier’s website that behaves in any of the following ways:

• It refuses to give a street address, telephone number and a way of contacting a pharmacist.
• It offers prescription drugs without a prescription, or offers to issue a prescription based on answers to an online questionnaire.
• It claims to have a miracle cure for any serious condition.
• It sells products that do not have a DIN issued by Health Canada.

Donnelly, Alta. — Frank Cote will miss his cattle once he sells the herd, but he finds solace in the change too. It maintains a long-held philosophy of growing in a direction that’s right for the family. For Cote, the sale means he can stay at home and raises Maine Anjou and Charolais-based, Angus-crossed cattle.

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“If you are ordering drugs online because it is inconvenient or difficult to get to your pharmacy, you might ask the pharmacy if it will deliver to your door. Many drug stores offer a free or inexpensive delivery service to seniors or disabled individuals.

It is not illegal to deal with reputable online drug stores located in Canada if you already have a doctor’s prescription or if it is non-prescription medication. However, Health Canada suggests that you not do business with a drug supplier’s website that behaves in any of the following ways:

• It refuses to give a street address, telephone number and a way of contacting a pharmacist.
• It offers prescription drugs without a prescription, or offers to issue a prescription based on answers to an online questionnaire.
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Belleville, Ont. Contact: health@producer.com.

Clare Rowson is a retired medical doctor in Belleville, Ont. Contact: health@producer.com.

Q: How safe is it to buy the prescription drugs I need online? Is it legal in Canada? Sometimes it is difficult to get a timely doctor’s appointment and it is tempting to try and buy the medications I need online. I haven’t done it yet.

A. There are several reasons why a person may turn to the internet to buy prescription drugs. People in the United States have to pay higher prices for most medications than we do in Canada, so they may turn to on-line purchases. Someone may also be embarrassed to see a live doctor if they have a sexually transmitted disease or erectile dysfunction, or it may be a matter of convenience due to a long wait for a medical appointment.

However, turning to the internet who try to diagnose medical conditions can be risky. First of all, there are reasons why doctors want to see you before refilling your prescription because it is inconvenient or difficult to get to your pharmacy, you might ask the pharmacy if it will deliver to your door. Many drug stores offer a free or inexpensive delivery service to seniors or disabled individuals.

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Setting new goals might help save marriage

SPEAKING OF LIFE

JACKLIN ANDREWS, BA, MSW

Q: I have been encouraging my husband to attend marriage counselling with me, but so far he is refusing. He says he does not think we got a lot out of the sessions the last time we went for counselling, and he does not want to waste either his time or mine. I am lost. I do not know what to do. I know that we need to work on our relationship, but unless he is willing to co-operate with me on this thing, not much is going to happen. I thought that counselling might help us, but that obviously is out of the question. So, what can we do?

A: Thank you for your letter. I can appreciate that you are discouraged. It is like you are the only one of the two of you who is taking responsibility to try to keep your marriage on track. It is not fair, but if that is the way it is, let’s see what we can do about it.

I think that people frequently forget that all relationships need goals toward which they can work. I am not suggesting that you go into week-long retreats to contrive complicated rationalizations for you and your husband to be together. Marital goals can be simple. For many people, they just want to be married so that they can love, respect and care about each other. Others want to be married so that they can have fun together. That is valid too.

Some people want to pretend that they are living in castles in the sky: she is the princess, he is the charming guy. Others want to have children and others want to make money. The list of reasons for people to be together seems inexhaustible.

The problem that many people have, and this could be the case for you and your husband, is that the marital goals they had when they were younger do not work for them anymore.

Think of the couple who want to be parents. That is great as long as their children are younger, but it presents a problem when their children grow up and leave the farm, as many do. The couple then has no one to parent.

The same is true for couples who were determined to build farms together. It worked at one time, but after spending hours and hours of hard work and labour, they may find that they do not need to sweat blood just to survive. Then what are they supposed to do?

If the goals shared by you and your husband many years ago are no longer working, why not consider changing them?

That is not hard. You simply need to spend 20 or 30 minutes each night having a discussion about the day after tomorrow and fantasizing together over your five-year plan. Of course, the talks work better if you have some fun with them — eating cookies, listening to music and laughing out loud at the foibles that cloud all of our personal beings.

Jacklin Andrews is a family counselor from Saskatchewan. Contact: andrews@producer.com.

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Beet growers eye road de-icing market

Alta. producers want to supply the main ingredient in a road product used in their province

BY BARB GLEN
LETHERIDGE BUREAU

Beet juice can beat snow and ice in winter road conditions, but the stuff being used in Calgary and elsewhere in Western Canada does not come from Alberta-grown sugar beets.

Alberta Sugar Beet Growers would like to change that because another use for their product could mean more acres and higher economic returns.

“We believe that it is potentially an area of opportunity that our industry could look at and ASBG has had multiple conversations with the distributor and they would be more than happy to buy Canadian product. We just can’t supply it at this time,” said ASBG executive director Melody Garner-Skiba.

A mix of brine and beet juice creates a liquid that sticks to roads and weakens the bond between the road and the snow and ice that accumulate. Calgary used almost 100,000 litres of beet juice in late December before a major snowfall.

The concoction has also been used on the Coquihalla Highway in British Columbia, known on reality television as the Highway Thru Hell because of its treacherous winter conditions.

All Alberta sugar beets are grown under contract to Lantic Sugar, operator of the Rogers sugar factory in Taber, Alta.

Supplying a new product would require buy-in from Lantic, said Garner-Skiba.

“First of all, we’d need to de-sugarize the molasses, so that could be a bolt-on to the plant, but my understanding is that it’s probably about a $20 million investment."

Another company could also make the product but Lantic would have to be willing to sell that company some product. However, molasses is now made into feed and other byproducts and is part of the Lantic product line.

“I think there’s potential. I think this is something that we seriously need to look at as an industry, and it is something that our industry development committee is looking at,” Garner-Skiba said.

“It’s just we’re in a situation where we really need the processor to also consider it as an opportunity, whether it’s a sales opportunity or whether it’s a refining and processing opportunity for them."

Jeff Gulyas sells various beet juice-containing products for Collett Transport, based in Notre Dame de Lourdes, Man. The firm is the western Canadian distributor for a variety of products including Fusion 60/40 Anti-Icer.

Gulyas said the sugar beet ingredients used in the product are sourced from Grand Forks, North Dakota.

“The reason is, there’s a few processes the sugar beet goes through to get to the end product that we use... I know when I’ve been talking with the sugar beet growers in Alberta they basically Taber does have a refinery but they don’t have the ability to take the last step."

“As Canadians, of course we’d prefer to use it but unfortunately they’re not at that point yet.”

Gulyas said the City of Winnipeg uses the beet-based Fusion product, as does Winnipeg International Airport, Manitoba Highways, Assiniboine Park and the town of La Broquerie, as well as many other locations in Canada.

There is also a competing product called Beet 55, which Gulyas said has different properties than Fusion 60/40 and its unique pH balancing component.

Beet-derived treatments are gaining popularity because they are more environmentally friendly than chloride-based treatments.

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barb.glen@producer.com
The wheat is high in amylose, a type of dietary fibre that benefits digestive health and helps ward off Type 2 diabetes.

PowerRich's granular PKS fertilizer, PowerRich recognizes that a fertilizer program, like a chain, is only as strong as its weakest link. As growth in all phases is dependent on micronutrients, producers must be aware of micronutrient balance in the soil and its availability to the plant. Each plays a key role. Without these mineral elements being taken into the plant in proper amounts and balance, yields will be limited.

“If your soil is lacking in micro, then the nitrogen or phosphorus you apply will not be fully used and yield is impacted. Wasted input means lost money—and it can be environmentally unfriendly,” says Stan Lacata, agronomist for PowerRich. “Producers are making greater demands on their land to produce more and more, increasing the amount of fertilizers they use each year.”

But Lacata notes that yields have levelled off in some cases, and many producers are asking—why?

“Often the limiting factor can be the micro, which refers to the quantity of a nutrient a plant needs, not its less important. At PowerRich, we believe prevention of micronutrient deficiencies is always better than correction after the appearance of symptoms.”

Soil is a living organism, and using chemical and salt-based fertilizers can endanger fertility. Nutrient imbalances in soil promote weed growth, and unhealthy crops lacking vital micronutrients are more susceptible to insects. In addition to phosphorus, potassium, and sulfur, PowerRich granular starter PKS fertilizer includes the other micronutrients that are either absent from soil or in a form unavailable to crops. It’s seed safe and works well with regular nitrogen applications.

Other sources of micronutrients depend on root inception, meaning the root has to find the nutrient once tied up in the soil. This means that PowerRich micronutrients move both laterally and vertically with soil moisture, becoming equally distributed throughout the root zone. Because nutrients remain available, farmers benefit from using far less pounds per acre of PowerRich granular fertilizer to correct nutrient deficiencies.

Greg Grant, general manager of PowerRich, believes in a balanced fertilizer approach so the plant has what it needs, when it needs it. “Our product proves itself, there’s no question,” Grant said. “We have over 30 years of proven results. PowerRich is a small custom fertilizing company and we stand behind our high-quality products.”

Grant noted that producers appreciate the attention to detail. “We even vacuum the product before it leaves the plant so it’s less dusty for the farmer to handle.”

Grant encourages producers to visit the company website or Facebook and check out the testimonials from their best sales team—its customers. “Many of our agents started with PowerRich as customers. With way less bulk to handle, producers save time and money, and it’s better for their land. And, we’ll deliver right to the farm which saves farmers the cost of transportation.”

“We have a rebate on until Jan 31st that saves you a bit of money and if financing input makes sense, PowerRich’s association with FCC and Scotia bank can help. And if producers need storage, we can arrange that too.”

“Try it on a quarter or half section first if you’re not completely convinced that PowerRich is right for your entire farm. Whatever you’re comfortable with. We get it. The product will do the rest!”

For PowerRich inquiries 1.800.663.4769 or www.powerrich.com

We’ve noticed healthier plants all season long and have higher proteins in our wheat from a full package of nutrients in PowerRich starter fertilizer—Ken and Alison Severson, Norquay Sask.

In 1840, J. Von Liebig, a German chemist described as the father of the fertilizer industry, stated that “the rate of growth of a plant, the size to which it grows, and its overall health depend on the amount of the scarcest of the essential nutrients that are available to it.”

Since its inception in 1984, prairie-based PowerRich Corporation has embraced Liebig’s philosophy and believes it still has a major impact on plant nutrition today. And for 33 years, farmers using PowerRich product have proven the importance of micronutrients.

As a Canadian pioneer in placing a full spectrum of micronutrients in granular PKS fertilizer, PowerRich recognizes that a fertilizer program, like a chain, is only as strong as its weakest link. As growth in all phases is dependent on micronutrients, producers must be aware of micronutrient balance in the soil and its availability to the plant. Each plays a key role. Without these mineral elements being taken into the plant in proper amounts and balance, yields will be limited.

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Come see us at Saskatoon Crop Production Show and Manitoba Ag Days and let’s talk fertilizer!
Crop research works well in small plots but do the results translate to field scale? That is a common question farmers ask when considering research results. Alberta Pulse Growers has a project underway to help farmers undertake their own field-scale research and get reliable results despite the variables.

“Definitely farmers can be skeptical of small plot research,” said Nevin Rosaasen, the policy and program specialist with APG. “However, that’s the fundamental basis of how we can actually control so many variables.”

Every field is different but the fundamentals of good research are solid, he added.

He said APG wants to ensure that farmers carrying out their own on-farm research are following the correct procedures.

“What we are interested in is providing them with guidance in how to follow a strip protocol to make sure that they are controlling as many factors as they can and that they are getting the best data and information possible from field scale research.”

Rosaasen gave an update on APG’s plot to field project at the Farming Smarter annual conference in Lethbridge early last month.

The project started in 2016 and this year a team of farmers, agronomists and technicians tested research protocols established last year.

Kent Sande of Lomond, Doug Clemens of Mossleigh and Josh Fankhauser of Claresholm are involved in developing the research protocols at a field scale.

It’s not an easy task given the variation in equipment, field shape, buffer zones, direction of travel, equipment calibration, seed lots, weed control, herbicide, fungicide and desiccant application, to name just a few variables.

Also needed are standardized ways to collect weather and rainfall data and assessing general plant health.

Seeding rate and plant density were the first questions undertaken while testing the protocol. They may not be the sexiest questions, said Rosaasen, but it seemed a logical place to start, with yellow peas as the crop.

Preliminary data is now in but analysis is not yet complete. Results will be shared with pulse growers. The field-scale protocol will also be available to them when it is ready.

Rosaasen said APG is considering its next research question for the project and is relying on growers to provide ideas.

Given what he termed the steady erosion of government funding, development of a protocol for farmers has added importance.

“We do have concerns about the erosion of our research capacity,” he told growers.

In a later interview, Rosaasen said research funds for agriculture pay large dividends — and not just for the growers involved.

“We’ve seen this over the years, that there is this misunderstanding that money that goes into ag research only benefits producers, and generally a lot of commodity organizations are taking up the slack for these budgetary cutbacks.”

But one in seven Canadian jobs is related to agriculture, so research affects the entire economy.

“It’s the grain companies, the railroads, the consumers themselves that end up relying on the fact that we have drought-tolerant crops, that we can provide higher yielding or decent yielding crops in periods of drought.”

However, there have been budget cuts in recent years at both the provincial and federal level for basic agronomic research and extension, he said.
Healthy soil depends on zero or minimal till

BY JEREMY SIMES
EDMONTON BUREAU

While their methods vary, farmers and ranchers across the Prairies are improving their soils to produce more abundant crops and forages.

Farmers gathered during the Western Canada Conference on Soil Health and Grazing Dec. 5, where they shared experiences and learned from other farmers and experts in the field.

But in a couple of cases, it was what those who attended didn’t do that proved the focal point for discussion. Most of them don’t till and they don’t over graze.

As well, they grow a diverse range of crops and forages, keep the cattle out grazing as long as possible in tight groups, and create what’s known as soil armour by cover cropping or by letting the herd compress the uneaten remainder.

Brian Harper with Circle H Farms in Brandon was part of a three-member panel of ranchers and farmers who shared what they do to improve soil health.

Harper raises his breeding stock on only forages, and sells the culled animals directly to consumers.

“There isn’t a lot of work now,” he told farmers and ranchers during the conference. “We don’t have hay, and by keeping our soil healthy we’ve extended grazing by quite a bit.”

In the past three years, he’s managed to restore organic matter by nearly one percent. He considers that to be a big deal.

“It didn’t sound like much, but the fellow who worked with conservation told me it was huge,” he said. “We’re excited to see where we’re going to be three years from now.”

Other producers also saw soils improve.

“On land we’ve just taken over that was traditionally farmed, we’ve been able to go from two percent organic matter to around that six percent,” said producer Duane Thompson during the conference.

Thompson has a 10 to 14 year rotation on his 8,000-acre mixed farm near Kellihier, Sask.

During the first half of his rotation cycle, he plants a mix of perennial forages on one side of the farm and plants annual crops on the other side. During the later half of the cycle, he rotates the forages into the crop side and vice-versa.

“And by doing that, we’re able to improve the soil considerably,” he said. “That builds a nitrogen bank in the soil and then we are able to harvest that nitrogen in the incoming years of the annual cropping system.”

David Archuleta, a soil scientist with the Soil Science Society of America, told producers to reduce tilling and over-grazing as much as possible. As well, producers should implement practices like cover cropping, and if they have to till, which is generally the case for organic farmers, he said they should do it in a way that minimally disturbs the land.

“How you set your drill is critical,” he said. “You would want to do it when it’s cold to prevent more of those microbes from releasing.”

But change is hard, Archuleta added, and producers may face naysayers.

“The social and cultural pressure is immense,” he said, noting some people may get frowned upon for going no-till.

“The key is integrity, and every time you feed your soil you’re being that person. We need more of you.”

@BarbGlen

Soil scientist Ray Archuleta told producers during the Western Canada Conference on Soil Health and Grazing early last month how they can improve their soil. | JEREMY SIMES PHOTO

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Alberta Agriculture Minister

Oneil Carlier talks about further tapping into food processing sector as well as new farm safety rules

Alberta Agriculture Minister Oneil Carlier sees greater use of green technologies and boosting the food processing sector as important factors in the future success of the agricultural sector.

Carlier spoke with The Western Producer about his vision and what producers can expect in 2018, during a recent year-end interview.

He said Alberta saw big investments in the food manufacturing sector last year, including Cavendish Farms’ $360-million frozen potato processing plant in Lethbridge and Champion Pet Foods’ $240-million expansion in Edmonton.

“A lot of things are working really well, so what more could we do around food processing?” he said.

“Right now, food and beverage manufacturing in Alberta is the largest manufacturing sector in the province. I think that shows, as a government, the diversifying of our economy, but it shows also the innovation and diversification role that agriculture can play in the entire province.”

Since the NDP government was elected a little more than two years ago, it has championed plans to diversify the economy, particularly through investment in low-carbon and green technologies, Carlier said.

The controversial plans have led to a carbon tax, more oil and gas regulations, and accelerating the closure of coal plants.

Through those changes, Carlier sees a prime opportunity for investment in agriculture.

“It’s never been about diversifying away from oil and gas,” he said.

“But the second and third largest industries in this province are agriculture and forestry. If you’re going to diversify the economy, agriculture is there, prime and ready to go.”

Carlier said producers will be able to use funds from the upcoming Canadian Agriculture Partnership program, a $3-billion investment initiative from the federal and provincial governments, as well as funds from Alberta’s energy efficiency program, to adopt green technologies that help them reduce costs and emissions.

“An example, what energy efficiencies can we find in irrigation systems?” he asked. “We can take advantage of new technologies to take part in the greening of the economy, lowering emissions and, at the same time, knowing there are economic benefits in finding those efficiencies.”

Moreover, the government has signalled that it intends to reduce costs in next spring’s budget. It continues to face rising red ink and will run a $10.3-billion deficit in 2017-18.

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One lingering question is how the government will fund agriculture societies in the coming years.

Carlier acknowledged the agriculture department will be affected by spending cuts, but wouldn’t elaborate on what specifically is on the chopping block.

“There are a lot of programs in agriculture and forestry that are very robust and help rural Alberta,” he said.

“All of these can be looked at, I think anyone could agree no matter what the program is, there could be efficiencies found.”

The question then is how the government will fund agriculture societies in the coming years.

Earlier this year, the ministry delayed funding to the societies while officials determined where the department could make savings.

Carlier couldn’t say whether agricultural society funding will continue.

“The budget process is still in process,” he said.

“We’re all going to have to look at our budgets and find those efficiencies where we can. That process starts now and continues now until the new year.”

Also happening this year, Alberta farmers and ranchers will learn the full details of the new farm safety rules.

The proposed rules will change the way farms and ranches with non-family, paid employees go about doing business.

For instance, workers may be required to wear seatbelts at all times, and owners may need to have plans in place, as well as a manual, for workers to follow when dealing with equipment, products and hazardous materials.

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British Columbia farmers who experienced income declines in 2017 may be able to recover some of their losses under special provisions set up under an existing farm program.

“It’s actually just enhancing a program that already exists but we’ve established new guidelines to reflect the challenges that farmers and ranchers have felt this year,” said Lana Popham, B.C. minister of agriculture.

“It’s been a pretty challenging year, I would say, for growers in the province. Of course, everyone is very familiar with the intensity of the forest fires and how that affected ranchers in the Cariboo,” Popham pointed out, adding that other instances in other areas of the province that also hampered producers’ efforts in 2017, including invasive pests, flooding and severe freezing.

The new provisions, the 2017 AgriStability Enhancement Program, were developed under the existing AgriStability program.

“We looked at this program (AgriStability) and it’s subscribed to by many, many farmers. Some make the decision that they’re going to take the risk and they don’t subscribe. So, unfortunately because people were so hard hit this year, we decided to enhance it.”

The late fee for the program has been waived.

“So farmers can sign up for that now, even though it’s the end of the season and we will back date that insurance so that they’re covered for some of these disasters,” Popham said.

According to information provided by the B.C. ministry of agriculture, the compensation paid out has increased from 70 percent to 80 percent when margins fall below the 30 percent threshold.

As well, the AgriStability Enhancement Program eliminates reference margin limits.

“There have already been applications in, but will probably see about $10 million going towards that program,” Popham said.

“Then we’ve got this AgriRecovery program, which mostly covers the devastation from the forest fires. That’s another $20 million provincial and federal funding that farmers will be able to apply for. We’re trying to be as flexible as possible.”

According to Popham, there have been more than 70 applications on the AgriRecovery side and there has been about $2.4 million paid out.

“The turnaround time on those applications is really fast so we’re encouraging people to get their paperwork in ASAP,” said Popham.
Crowd-funding helps greenhouse adopt hydroponics

Thiel’s Greenhouses will use the production method to grow lettuce and other greens

BY JEREMY SIMES
EDMONTON BUREAU

BRUDERHEIM, Alta. — An Alberta ornamental plant greenhouse operator has received crowd funding of almost $30,000 to help diversify into vegetables.

Nadine Stielow, owner of Thiel’s Greenhouses in Bruderheim, Alta., raised the money through the Alberta Treasury Branch’s BoostR program, a platform that encourages the public to fund ideas developed by local entrepreneurs.

Stielow said the funds will build a new hydroponic system to feed lettuce and other greens.

“I could have filled it up with more flowers, but I wanted a sustainable business model,” she said. “Food is where it’s at. Everyone is suspect of where our food comes from, so to have another local source I figure I can’t go wrong.”

The hydroponic system will consist of ponds connected to a water source. Floating on top of them will be rafts of greens, their roots submerged.

Stielow said the greens will be transferred from one pond to the next as they grow.

“We’ll start seeding at one end and then transfer them to the next as they grow,” she said. “They’ll come out the end when it’s time for harvest.”

She said she expects to get about 1,300 to 1,500 heads of lettuce each week. She plans to sell them to suppliers and directly to consumers through a farmers market she hopes to start.

“I have the space to host a market and there are people in my network who are quite interested in helping out with it,” she said. “There’s really nothing in this area so I think it’s a great opportunity.”

Stielow said she won’t spray her greens with chemicals and instead plans to use a bio control, where good bugs are used to hunt the harmful ones.

“I did that with my seasonal ornamental crop and I’m happy to say not one chemical went on to them,” she said. “It can be hard to do bio control with greens, but there has to be someone in the world with success. Maybe that could be me.”

She said the experience, from the launch of the funding campaign to the construction of the lettuce operation, has been humbling.

“I’m so grateful for all the people who have jumped into it,” she said. “While it’s my name and face on everything, my family and friends and everyone have been so helpful!”

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An Alberta researcher wants to figure out if farmers can tap into the fighting abilities of their crops and use that to benefit the farm. The benefits could mean higher yields, fewer inputs and fewer weeds, according to JC Cahill, a biological sciences professor with the University of Alberta.

Cahill discussed this idea during the Western Canada Conference on Soil Health and Grazing held Dec. 5-7 in Edmonton. He said plants are smarter than people think, saying they mainly grow their roots toward spots in the soil with the most nutrients.

The problem, though, is that some plants fight others for those nutrient pockets. When they’re too busy attacking and not absorbing, they don’t grow as well.

“If they are considered seekers, and look for food everywhere in the soil, we probably don’t want to put nutrients or fertilizer everywhere because we’re making the plant work too hard,” he explained. “If the plant is working too hard, it’s not going to give you the yield you’ll need.”

But as much as there is a tendency for some plant breeds to attack one another, there are other species that choose to run away from the attackers. Cahill wants to turn that trait into something that’s beneficial for farmers.

For instance, he wants to see if farmers could grow attacking-trait crops near weeds. This way the crops could reduce the weeds naturally without the use of expensive sprays.

As well, he wants to see if crops with fleeing traits can be planted next to one another. By doing this, they won’t attack each other and therefore spend more time soaking up nutrients to grow bigger.

“We don’t want you to put a single molecule of nitrogen into the soil if that molecule doesn’t go into your crops,” he said. “We want that all to go into your crops and that should help with runoff, emissions, and everything.”

Cahill needs funding to look into this issue further. He hopes to get grant money that would allow researchers to screen varieties to see whether or not they have the fleeing or attacking trait.

Some ranchers and farmers at the conference seemed intrigued by using root systems.

“The key in farming in my opinion is to get everything to work together (rather) than try and kill specific species, which become immune or resilient to chemicals and sprays,” said Josh Slager, who farms near Coilliton, Alta. “If we can work together with the plants on our farm naturally, I think we’ll all be better off.”

Still, there are more factors at play, Cahill noted. He said when crops are disturbed, whether that’s by pests or through the combine, they get stressed. This causes them to spread their roots in every direction, even if it makes little sense for them to do so.

As well, research indicates crops that are well fed with nutrients generally won’t attack their offspring’s root systems. It’s similar to how humans or animals protect their young, Cahill said.

“Plants have been doing this for a long time,” he said. “So, we don’t really have to re-invent how they operate, but just have a better understanding on how their systems work.”

jeremy.simes@producer.com

Researcher gets into plants’ heads

U of A scientist tries understanding what makes plants tick in an effort to make them natural weed killers

BY JEREMY SIMES

EDMONTON BUREAU

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E-Quip enews also features AgDealerTV equipment videos with host Spencer Myers. Spencer takes a close look at a wide range of cutting-edge ag machinery and technologies that benefit producers on and off the field.
Who will be the next Sask. premier?

BY KAREN BRIERE
REGINA BUREAU

Saskatchewan Party members will vote Jan. 27 to determine their next leader and the province’s next premier.

Five candidates are seeking the job, and while they have common positions on some issues — none of them are in favour of a carbon tax — they all bring different perspectives to the table.

Here are some of their thoughts on agricultural and rural issues.

TINA BEAUDRY-MELLOR

- **Constituency:** Regina University
- **Occupation:** Instructor at the University of Regina’s Department of Political and Administration.

Beaudry-Mellor was the first to enter the race and admits that campaigning in rural Saskatchewan has been a learning curve. However, she says she understands the issues.

She was the first to commit to rolling back the PST on insurance premiums, which was announced in the 2017 budget.

“We did the math. By the time you add up crop, bail, life and vehicle insurance, it’s a $20,000 to $30,000 hit,” she said.

“The sector is the resource sector that’s bolstering our GDP right now. This is just not something we can do.”

She said drainage has come up at every forum, and she would move quickly to bring partners together to establish an advisory council, as promised in Bill 44 passed last year, and find a solution to the Quill Lakes flooding.

Beaudry-Mellor said connectivity is a huge barrier to rural competitiveness. She said given the technology in today’s farm equipment — she spent time in several combines last fall — it shouldn’t take 17 minutes to download data.

“That is not a competitive advantage,” she said, adding this infrastructure deficit must be addressed.

She agrees with another candidate, Gordon Wyant, on the need for a transportation summit after spending time on the province’s roads and listening to farmers talk about rail issues.

She said she is a fan of the P3 funding model but says it could be time to explore private equity financing models for infrastructure.

Beaudry-Mellor proposes a two-year budget process rather than the year-to-year “bureaucratic churn” that doesn’t involve enough consultation with sectors affected by such things as revenue shortfalls.

KEN CHEVELDAYOFF

- **Constituency:** Saskatoon Willowgrove
- **Occupation:** Worked for Western Farmers Mutual Insurance, has a four-point plan for Western Economic Diversification before election. Has economics and political science degree and a Master of Business Administration.

Cheveldayoff bills himself as both rural and urban strong, given that he grew up in Blaine Lake, Sask., and has worked in the agriculture sector in the past.

“We have to represent rural Saskatchewan but we have to win in urban Saskatchewan,” he said, referring to the seat distribution.

“People understand I can win in rural Saskatchewan.”

He said one of his most popular pledges is to increase rural internet service to every farm and small community by 25 percent.

“Some of them are operating on two megabytes per second right now, and the minimum for doing business for commerce is 10 megabytes per second,” he said.

SaskTel spends $300 million on improvements.

“I’m asking them to take 10 percent of that, $30 million a year, and dedicate that strictly to farms and hamlets and towns and villages.”

Cheveldayoff has a four-point plan for agriculture and food, which includes adding value, innovation, improving business risk management programs and ensuring food safety and sound environmental stewardship.

He said sustainable crop rotation should be reflected in crop insurance premiums. He also said government should provide premium support for cattle and hog producers who participate in the price insurance programs.

Cheveldayoff is a proponent of environmental farm plans and said farmers shouldn’t “bear the sole cost of providing habitat through proper wetlands management.”

He said farmers tell him AgriVest is working well but AgriStability has to be changed.

“Haven’t done that work on what it may look like, but I certainly hear it very clearly that that program has to be vastly improved or totally overhauled,” he said.

ALANNA KOCH

- **Elected:** April 4, 2016
- **Occupation:** On leave from her job as deputy minister to Premier Brad Wall. From 2007-16 she was deputy agriculture

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-Gary Csöff, Product Marketing Manager, The Climate Corporation
minister. Has also served as president of the Canadian Agri-
Food Trade Alliance, executive
director of Western Canadian
Wheat Growers Association,
director of Agricore United and
ran several campaigns.

Koch’s connection to agriculture is likely the strongest of the candi-
dates, given that she has spent her
career in the sector and has negoti-
ated international trade agree-
ments. She doesn’t hesitate to
wade in on the current talks, saying
she believes Canada is “in tough”
on the North American Free Trade
Agreement and that the federal
government appears asleep at the
switch on the Trans-Pacific Agree-
ment negotiations.

“This government isn’t inviting provincial input,” Koch said. “I’m
not going to wait to be invited.”

She said Saskatchewan should
have a multi-year strategy for inter-
national engagements.

“I’ve certainly heard from those
who are active in exporting that we
need to do more, that the trade mis-
sions we’ve been doing are so effec-
tive, but we need to have a more
sustained presence,” she said.

Koch has promised an Angel
Investment Tax Credit to increase
agricultural export volumes
and reinstate the funding
required to hire 400 educational
assistants and other profes-
sionals. That is a $30 million promise
he said is key to supporting popu-
lation growth.

“We’ll pay for it through growth
and through asset building at our
Trustee Boardable,” he said.

Moe also said investment in
infrastructure must continue as
exports grow beyond the current
capabilities. Stop saying “If we’re going to add value to our
ag products or any other products,
that value is going to be quite often
existed, and he would put together
the PST on crop, hail, life and
health insurance premiums.

In late December, Moe
announced he would implement
a moratorium on school closures
and reinstate the funding
required to hire 400 educational
assistants and other professionals.
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lation growth.

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infrastructure must continue as
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capabilities.

“We will do the proper transporta-
tion infrastructure to get those
products there,” Moe said that speaks to the syner-
gistic relationship between rural
and urban Saskatchewan.

“This is how we have succeeded in
the last decade, and decades,” he said.

GORDON WYANT

• Constituency: Saskatoon
Northwest
• Elected: October 2010 byelec-
tion, 2011, 2016
• Occupation: Lawyer at McKercher
LLP, Saskatoon public school
board chair, city councillor.
• Most recently: minister of justice
and attorney general

Wyant has the support of the cur-
rent and previous agriculture min-
isters, Lyle Stewart and Bob
Bjornson, even though he repre-
sents a city riding.

“My experience in rural Sas-
katchewan as it relates to the rural
economy isn’t as strong as others,” he said.

“One of the key elements of leader-
ships is to recognize that where you do
have weaknesses, you shore those up
with the appropriate support.”

Wyant has promised a review of
rural land use, including legisla-
tion and regulations around “right
to farm” and land access.

He said the rules need to be mod-
erized, and he would put together
a group of rural MLA’s to lead a
consultation with all stakeholders,
including farmers, municipalities,
snowmobilers and hunters to work
toward that.

“There were a lot of people a little
surprised that an urban MLA would
be bringing this up,” he said, but it
was a topic that rose to the top.

Another is drainage. Wyant said “solutions based in science, not
hysteria” are required.

“One of the things we can’t do is
nothing,” he said.

“Coming to work every day with
your fingers crossed hoping that the
Quills is down a little bit is no way
to manage a problem.”

Wyant has also promised a trans-
portation infrastructure summit
within six months of taking office to
support the needs of getting
exports and resource-based prod-
ucts to market.

As well, he has committed to
addressing the mental health and
addictions needs of rural residents.

He said rural MLAs will play a
critical role in developing a strategy
to serve the population in this
regard.

Wyant said the party can’t diet divi-
sions, such as urban and rural, lib-
eral and conservative or left and
right come into play as it works to
pursue for all.

“There’s really only one econ-
omy, and we need to be able to focus
on that,” he said.

Karen.Briere@producer.com

NEWS

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INSECT FORECAST MAPS GO LIVE

Three insect forecast maps have been added to Alberta Agriculture’s website. The wheat stem sawfly and wheat midge maps were released early to help producers make varietal decisions at this time of year, while the pea leaf weevil maps will help those who are seed-treating for that pest.

The maps are not intended to take the place of individual field monitoring and producers should plan to scan their fields when specific pests, and pest damage, are most identifiable.

Forecasts and maps for grasshopper, cabbage seedpod weevil and bertha armyworm will be available in January.

More information is available in the Alberta Pest Monitoring Network website.

WHITE-FACED BISON

Three snowy-faced bison take a break from grazing for feed under the snow in a field west of High River, Alta., in late December. | MIKE STURK PHOTO

AG NOTES

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FCC TO ANNOUNCE PROJECT FUNDING THIS SPRING

The FCC Expression Fund will announce selected projects this spring.

Successful projects will receive between $2,000 and $10,000 to fund initiatives that could include community centres, libraries, day-care centres, art galleries and projects such as workshops and festivals. For a project to be considered for funding, the organization must be a registered charity or a registered non-profit.

Last year, the FCC donated $50,000 to eight linguistic minority communities, which is the same budget this year.

More information can be found at fcc.ca/expressionfund.

NEW MEMBERS ELECTED TO APAS BOARD

Todd Lewis has been re-elected president of the Agricultural Producers Association of Saskatchewan for 2017-18, while Ian Boxall and James Vogt were elected vice-presidents.

APAS representatives elected to the board are:
• District 1: James Vogt of Francis, Rural Municipality of Francis, RM of Martin
• District 2: Todd Lewis of Gray, RM of Lajord, and Terry Anthony of Moose Jaw, RM of Baldon
• District 3: Don Connick of Gull Lake, RM of Carmichael, and Rick Jensen of Webb, RM of Webb
• District 4: Ian Boxall of Tisdale, RM of Connaught, and Bill Prybylski of Willowbrook, RM of Garry
• District 5: Donavon Block of LeRoy, RM of LeRoy, and Mickey Palfy of Viscount, RM of Viscount
• District 6: Scott Owens of Maidstone, RM of Eldon, and Bill Warring of Loretta, RM of Ate-lope Park

SASKATCHEWAN FARM RECOGNIZED

Land O’ Lakes Sustain has awarded Prairie Son Acres of Duval, Sask., for improving conservation and environmental efforts through their leadership in 2017.

The farm was one of 12 that received recognition at the farmer recognition and innovation summit. The three-day event attracted more than 200 farmers from across the United States and Canada with representatives from major retailers, consumer packaged goods companies and environmental groups.

More information is at sustain.ag.

FCC CONTRIBUTES TO 4-H

The Farm Credit Canada 4-H Club Fund is providing $107,000 to 216 4-H clubs across Canada.

The fund is part of FCC’s $1 million contribution committed over four years to 4-H Canada.

This contribution, in addition to supporting local 4-H activities, supports national and provincial 4-H initiatives.

The fund awards up to $500 for projects such as achievement days, horse clinics, field trips, public speaking workshops and equipment purchases.

The next application period opens in fall 2018. The list of recipients is at fcc.ca/4-H.

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  - 850 hrs.
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  - 1999 CAT 320C.
  - 12’-w, 10’-h, 14’-d, low pro.
  - 1200 hrs.
- **2664**
  - 1996 CAT 320C.
  - 12’-w, 10’-h, 14’-d, low pro.
  - 1200 hrs.

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  - 14’-w, 14’-h, 32’-d, high pro.
  - 6000 hrs.
- **3400**
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**MACHINERY**
- **2664**
  - 1996 CAT 320C.
  - 12’-w, 10’-h, 14’-d, low pro.
  - 1200 hrs.
- **2666**
  - 1999 CAT 320C.
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  - 1200 hrs.
- **2672**
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  - 1200 hrs.
- **2674**
  - 1999 D8N.
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  - 1200 hrs.
- **2682**
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  - 1200 hrs.
- **2684**
  - 1999 CAT 320C.
  - 12’-w, 10’-h, 14’-d, low pro.
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**BIN MOVING**
- 40’ up to 15’ diameter
- Call 306-619-1234, 780-976-9709, York, SK.

**40’ RAW**
- New, now & delivery don’t pay until NOVEMBER, 2016. Top grain bin extender. Inc. Includes all metal to extend and delivery work. Extenders, grain bins, extender kits, 2 existing bins connected and all metal to extend. New bingrain storage, hopper and accessories available. Call 780-986-5548, Leduc, AB. Available. Call 780-986-5548, Leduc, AB.

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- **306-631-8550**

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- 306-634-1111

**BAHR EQUIPMENT Sales**
- 306-737-1806

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- iSteel Products is offering early season sales to clear their 2017 inventory. Call now for great savings and early delivery.

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**DARLING COUNTRY SHIELDS**
- Steel buildings, quonset, rigid frame straight walls, grain bins, metal, clouding, farm communities, garages, workshops, fence line clearing. Borysiuk Contracting Inc., www.bcisk.ca Prince Albert, SK.

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**WOOD COUNTRY**
- 780-677-7171, Farmzila

**FOR ADDITIONAL INFORMATION ON CUBIC METER PRICING, VISIT:** www.warmanhomecentre.com

**S&AUGE3TEEL**
- 306-634-5111

**FOR ADDITIONAL INFORMATION ON CUBIC METER PRICING, VISIT:** www.warmanhomecentre.com

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1-866-517-8335. www.magnatesteel.com
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-1722.

107,493 kms, alum., 12 comp., hydraulic
live bottom,
.

Phone 1-800-843-3984 or 306-781-2600.

20' and 40' SHIPPING CONTAINERS

Steel, 306-367-4306 or 306-367-2408.

Saskatoon, SK. or
Kramble Industries
and hoist systems, wireless full bin alarms,

1072 and HD10-53. Used augers: 2013 Sa-

1000 PTO, hydraulic spout, 500 bu./min.,


2002 CIH 2388, low hrs., $19,500. 306-948-7223, Biggar, SK.

2006 2388 w/2015 PU header, $110,000; 2014 JD 548, 2630 hrs., $85,000; 2013 John Deere 750, 4795 hrs., $35,000.

1-800-667-4515, www.combineworld.com

1-800-667-4515

2006 LEXION 590R, 1850 sep. hrs., 2900
CAD OBO. Delivery avail. 218-779-1710.

2001 LEXION 470R, sector section con-
trailer, AutoSteer, 2630 monitor, Stk: 02415,

2002 Loral AirMax 1000, 70' sprayer booms, 7400 hrs., $77,000; 2005 Case 1250, 120', AutoSteer, 8000 hrs., $37,000.

2010 4520 1- bin, 70' booms, 1800
hrs., $125,000; 2010 Case 4520, 1-bin, 70'
booms, 1800 hrs., $125,000.

2006 2388 w/2015 PU header, $110,000; 2014 JD 548, 2630 hrs., $85,000; 2013 John Deere 750, 4795 hrs., $35,000.

1-800-667-4515, www.combineworld.com

1132 hrs., AutoSteer, 36',

2006 2388 w/2015 PU header, $110,000; 2014 JD 548, 2630 hrs., $85,000; 2013 John Deere 750, 4795 hrs., $35,000.

1-800-667-4515, www.combineworld.com

2006 2388 w/2015 PU header, $110,000; 2014 JD 548, 2630 hrs., $85,000; 2013 John Deere 750, 4795 hrs., $35,000.

1-800-667-4515, www.combineworld.com

2012 NH CR9010 Evolution, 1300 hrs.,
John Deere, 2400 hrs., $23,500; 2009 Wran-

tors, tillage, seeding, haying, along w/oth-
draper, Mac- ni-06-91, TM

306-861-1102 Radville, SK.

2002 Loral AirMax 1000, 70' sprayer booms, 7400 hrs., $77,000; 2005 Case 1250, 120', AutoSteer, 8000 hrs., $37,000.

2006 LEXION 590R, 1850 sep. hrs., 2900
CAD OBO. Delivery avail. 218-779-1710.

2001 LEXION 470R, sector section con-
trailer, AutoSteer, 2630 monitor, Stk: 02415,

2002 Loral AirMax 1000, 70' sprayer booms, 7400 hrs., $77,000; 2005 Case 1250, 120', AutoSteer, 8000 hrs., $37,000.
WEIGHTED NATIONAL AGRICULTURAL LENDER'S RATES JANUARY 11, 2018

37

SP SPRAYERS
4241
2014 SPRAY-MASTER 1900, 30’ single boom, 32’ double boom, 60’ tri-boom, $13,600, 888-905-7010, Swift Current, SK.

AIR DRILLS
4250

2013 ROSTOR 1396, 1396’ sort, rear folding boom, hydraulic, steering, air, gas, diesel, 9200 hrs., new 6’ checkerboard, $15,000, Alex Pro., Blaine, MN.

2013 JOHN DEERE 1395, 1395’ air, 1650# capacity, 1500# capacity, $11,000, Weyburn, SK.

SPRAYING VARIOUS
4244
Spray 4 Times In 1 Pass!

TURBO DROP TARP DIALlFAR
This nozzle provides a deflectable fan pattern for improved direction and drift control. Proven over 7 seasons to provide maximum coverage and reduction of drift. Available at agri-devices.com, 403-596-0593, Canmore, AB.

AIR SEEDERS
4253
2014 JOHN DEERE 1850, 1850’ air, 2000# capacity, 3000# capacity, $11,000, Weyburn, SK.

TILLAGE EQUIPMENT
4262
2014 1000-400, 400’ grain box, 12’ liquid box, 12’ fertilizer, 24’ air, 4-4006, $5,500, 204-965-7730, Melita, MB.

STEIGER
4269
2014 CT3405 105/54, 1050 HP, $150,000 OBO, Prince George, BC.

2014 1100-2000, 2000’ air, 1900# capacity, 2000# capacity, $11,000, Weyburn, SK.

2014 1100-2000, 2000’ air, 1900# capacity, 2000# capacity, $11,000, Weyburn, SK.

2014 CT3405 105/54, 1050 HP, $150,000 OBO, Prince George, BC.

2014 1100-2000, 2000’ air, 1900# capacity, 2000# capacity, $11,000, Weyburn, SK.

TILE LAYERS
4272
2014 1000-400, 400’ grain box, 12’ liquid box, 12’ fertilizer, 24’ air, 4-4006, $5,500, 204-965-7730, Melita, MB.

2014 1100-2000, 2000’ air, 1900# capacity, 2000# capacity, $11,000, Weyburn, SK.
**AS FEATURED ON AGDealer.com**

### 2017 Bourgault 7800 & 2015 Bourgault 3720

- **$Call**
- Air Seeder and 60’, 10” Spacing Air Drill
- Please Call For Pricing

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### 1998 Peterbilt 378

- **$Call**
- Detroit Eng., 430/470 hp., (Recent Eng Work)
- new turbo, refurbished 18 spd. trans., new 2050 clutch, rad and bln. pipes, c/w new MB safety

### 2017 Massey Ferguson WR9860

- **$225,000**
- Comes with 9186 - 13’ Razor Bar Disc Bine and 5300-30 Draper Header, Like New, 75 hrs

### 2015 Case MX140

- **$110,900**
- 1950 Hrs, 140HP, MFWD, Loader, Grapple, 3 pth

### 2016 Claas Lexion 780TT

- **$599,000**
- With 450 Swath Up Header
- Stock # CL0217A

### 2015 John Deere 6150M

- **$133,765**
- 1395 Hours, MFWD, 520/85R38, w/H60 Loader, Comfort Seat

### 2013 John Deere 9560RT

- **$362,900**
- Blow Out Pricing
- Power Shift, Duals, Hyd Pump, Guidance Ready, Must See!

### 2017 Case IH WD 1903

- **$125,000**
- 803 Hrs, 16’, Series 2 Disc Mower Conditioner

### 2015 John Deere 8320R

- **$376,000**
- 1895 Hrs, 50K IVT W/ LHR, MFWD w/ Suspension, 10 In. Command Center Display

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- 780-672-6868
- Email: ontrack@ontrackinc.net

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**COTTAGE CENTRE**

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- 60′x120′ $79,200*

*Includes materials & labour

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- 1x6′ 5″ Rough Spruce $25*
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- 3.25′x7′ Rd Treated Post $55*
- 4.25′x6′ Rd Treated Post $65*
- 4.25′x7′ Rd Treated Post $85*
- 4.25′x8′ Rd Treated Post $95*
- 5.25′x7′ Rd Treated Post $105*
- 5.25′x8′ Rd Treated Post $135*

**CATTLE SHELTERS**
- 30×36 $8,495*
- 30×40 $13,195*
- 30×72 $15,995*
- 30×96 $19,905*

*Includes materials & labour

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### COMBINES

<table>
<thead>
<tr>
<th>Model</th>
<th>Make</th>
<th>Spec.</th>
<th>Year</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>9240 36'</td>
<td>Case IH</td>
<td>36' Tracks, Ext Wt Rotor, Folding Auger, Lux Cab, Leather, AccuGuide, HD Lights Stk: 026350 (SC)</td>
<td>2017</td>
<td>$57,000</td>
</tr>
<tr>
<td>9240 62'</td>
<td>Case IH</td>
<td>62' Tracks, Lat Tilt w/Rocktrap, AccuGuide, 50' Folding, Unload, Magnacut Chopper, HD Lights Stk: 022940 (SC)</td>
<td>2016</td>
<td>$49,000</td>
</tr>
<tr>
<td>9240 520</td>
<td>Case IH</td>
<td>520 Tracks, Lat Tilt, Ext Wt Rotor, Standard Chopper, Deluxe Cab, Leather Seat, Pro 700, AccuGuide Ready Stk: 022117 (SC)</td>
<td>2016</td>
<td>$405,000</td>
</tr>
<tr>
<td>9230 800</td>
<td>Case IH</td>
<td>800 Duals, Cab, GPS, Folding Auger, Pivot Spout, Hyd Fold Hopper Cover, 865 Engine &amp; 640 Rotor Hrs, Stk: 032599 (SC)</td>
<td>2014</td>
<td>$335,000</td>
</tr>
<tr>
<td>9230 620</td>
<td>Case IH</td>
<td>620 Duals, Lat Tilt w/Rocktrap, AccuGuide, Hyd Grain Tank Cover, Magnacut Chopper, HD Lights Stk: 021990 (ES)</td>
<td>2014</td>
<td>$430,000</td>
</tr>
<tr>
<td>9250 620</td>
<td>Case IH</td>
<td>620 Duals, HD Lights, Magnacut Fine Chopper, AccuGuide, Pro600 Monitor, 24'Auger Stk: 023448 (PA)</td>
<td>2012</td>
<td>$275,000</td>
</tr>
<tr>
<td>9230 520</td>
<td>Case IH</td>
<td>520 Tracks, Lat Tilt, Ext Wt Rotor, HD Folding Cover, Std Chopper, HD Lights, AccuGuide, Air Compressor Stk: 021503 (PA)</td>
<td>2012</td>
<td>$296,000</td>
</tr>
<tr>
<td>9120 3016</td>
<td>Case IH</td>
<td>3016 Header / W SwathMaster Pickup Stk: 205692B (LL)</td>
<td>2014</td>
<td>$189,000</td>
</tr>
<tr>
<td>8000 14'</td>
<td>Case IH</td>
<td>14' CH 2016 Pickup, 520 Duals, Rocktrap, Pro 600 Monitor, St. Rotor, Rotor Mover Topper, Fine Cut Chopper, Long Auger Stk: 021412 (ME)</td>
<td>2006</td>
<td>$155,500</td>
</tr>
<tr>
<td>8000</td>
<td>Case IH</td>
<td>Gleaner R65 Pickup Header, 900 Singles, Single Spread, 500 Hrs on Reman Engine Stk:026973 (ME)</td>
<td>2006</td>
<td>$92,500</td>
</tr>
<tr>
<td>5400 620</td>
<td>Case IH</td>
<td>620 Duals, Power Fold Hopper, MAW Chopper, Small Grain Rotor, AutoSteer, Leather, PH5 PU Header Stk: 026658 (SA)</td>
<td>2012</td>
<td>$245,000</td>
</tr>
<tr>
<td>5560 520</td>
<td>Case IH</td>
<td>520 Duals, MAV Chopper, Power Ford Hopper, AutoSteer, Leather, MF 4200 PU Header Stk: 026657 (SA)</td>
<td>2012</td>
<td>$270,000</td>
</tr>
<tr>
<td>5400 800</td>
<td>Case IH</td>
<td>800 Duals, AccuGuide, 6 Remotes, PTO, HD Lights, 2 Hyd Pumps, Weight Pkg, Stk: 016410A (ME)</td>
<td>2015</td>
<td>$429,000</td>
</tr>
<tr>
<td>5400</td>
<td>Case IH</td>
<td>5400 Quadtrac Lux Cab, PTO, Twin Flow Hyd, 36' Tracks, 6 Remotes, Pro 700, AccuGuide, HD Lights Stk: 025052 (ME)</td>
<td>2015</td>
<td>$489,000</td>
</tr>
<tr>
<td>4440 40'</td>
<td>Case IH</td>
<td>40' Tracks, Ext Wt Rotor, Folding Auger, Lux Cab, Leather, AccuGuide, 2 Hyd Pumps, Weight Pkg, Stk: 016136 (ME)</td>
<td>2015</td>
<td>$429,000</td>
</tr>
<tr>
<td>4440 120'</td>
<td>Case IH</td>
<td>120' Tracks, Ext Wt Rotor, Folding Auger, Lux Cab, Leather, AccuGuide, 2 Hyd Pumps, Weight Pkg, Stk: 016410A (SA)</td>
<td>2015</td>
<td>$489,000</td>
</tr>
<tr>
<td>4440 100'</td>
<td>Case IH</td>
<td>100' Tracks, Ext Wt Rotor, Folding Auger, Lux Cab, Leather, AccuGuide, 2 Hyd Pumps, Weight Pkg, Stk: 016501 (ME)</td>
<td>2015</td>
<td>$487,000</td>
</tr>
</tbody>
</table>

### SPRAYERS

<table>
<thead>
<tr>
<th>Model</th>
<th>Make</th>
<th>Spec.</th>
<th>Year</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>4440 120'</td>
<td>Case IH</td>
<td>120' Pumps, 6 Remotes, PTO, Raven Xtrator Stk: 023776 (PA)</td>
<td>2014</td>
<td>$460,000</td>
</tr>
<tr>
<td>4440 100'</td>
<td>Case IH</td>
<td>100' Pumps, 6 Remotes, PTO, Raven Xtrator Stk: 023776 (PA)</td>
<td>2014</td>
<td>$389,000</td>
</tr>
<tr>
<td>4440 100'</td>
<td>Case IH</td>
<td>100' Pumps, Ag Leader Monitor, AutoSteer, Stk: 023118 (SA)</td>
<td>2015</td>
<td>$305,000</td>
</tr>
</tbody>
</table>

### TRACTORS

<table>
<thead>
<tr>
<th>Model</th>
<th>Make</th>
<th>Spec.</th>
<th>Year</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>4440 500</td>
<td>Case IH</td>
<td>500 Dresses, Hi Cap Hyd, Lux Cab, HID Lights, Stk: 023202 (SC)</td>
<td>2015</td>
<td>$380,000</td>
</tr>
</tbody>
</table>

### 0% FOR 24 MONTHS

on select used agricultural equipment.

<table>
<thead>
<tr>
<th>Model</th>
<th>Make</th>
<th>Spec.</th>
<th>Year</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>4440 120'</td>
<td>Case IH</td>
<td>120', PTO, Active Susp, Pro 700, AccuGuide, 2 Hyd Pumps, Weight Pkg, Stk: 022517 (PA)</td>
<td>2015</td>
<td>$495,000</td>
</tr>
<tr>
<td>4430 120'</td>
<td>Case IH</td>
<td>120', PTO, Active Susp, Pro 700, AccuGuide, 2 Hyd Pumps, Weight Pkg, Stk: 022517 (PA)</td>
<td>2014</td>
<td>$380,000</td>
</tr>
<tr>
<td>4440 100'</td>
<td>Case IH</td>
<td>100', PTO, Active Susp, Pro 700, AccuGuide, 2 Hyd Pumps, Weight Pkg, Stk: 022517 (PA)</td>
<td>2014</td>
<td>$335,000</td>
</tr>
<tr>
<td>4440 100'</td>
<td>Case IH</td>
<td>100', PTO, Active Susp, Pro 700, AccuGuide, 2 Hyd Pumps, Weight Pkg, Stk: 022517 (PA)</td>
<td>2014</td>
<td>$390,000</td>
</tr>
</tbody>
</table>

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$488,000
2015 Case IH Patriot 4440
120 Ft, 500’s & 710’s, AIM Pro, DiC HD Lights, Pro 700, AccuGuide, Fenders, Stk: 019638 (ME)

$189,000
2009 Apache AS1010
120', 1000 Gallon Tank, AutoSteer, Swath Pro, AutoBoom, 2 Sets Or Tires, Crop Dividers, Fm Reverser Stk: 021959 (ME)

$249,000
2000 Case IH SPX2130
76’, AutoSteer, 2 Sets of Tires, 660 Gallons Stk: 024745 (SA)
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**LIVESTOCK EQUIPMENT**

**FARM MANURE ACT**

No manure handling or storage facilities are to be used or constructed unless there is a written agreement between the parties. A manure handling or storage facility shall be designed and constructed in accordance with the requirements of the local health department. The facility will be repaired or replaced if it is found to be unsuitable, or if the manure is not of suitable quality or quantity. All facilities shall be inspected at regular intervals, or immediately in the event of a change in the use or ownership of the premises. Failures not remedied within the prescribed time may result in the authorities taking such action as they deem necessary.

**FARM EQUIPMENT**

1. **Do Not Cut Field**
2. **Gravel Road**
3. **Fenced Area**

**TOMORROW'S BILINGUAL°**

The Animal Legal Act mandates that all livestock be handled in a humane manner. The regulations for livestock handling, slaughter, and processing are designed to ensure the health and welfare of the animals. All facilities shall be inspected at regular intervals, or immediately in the event of a change in the use or ownership of the premises. Failures not remedied within the prescribed time may result in the authorities taking such action as they deem necessary.

**AGRICULTURAL LAND FOR SALE BY TENDER**

RM of North Battleford No. 437

Having received proposals for the sale of land, the undersigned offers the following agricultural land situated in the RM of North Battleford No. 437 for sale by tender.

- **Land Description**

  - **Location**: RM of North Battleford No. 437
  - **Size**: Approximately 160 acres
  - **Description**: Farmland with grass and pasture

- **Tender Process**

  - Tenders will be accepted for a period of 30 days
  - Proposals will be considered until the closing date of February 15, 2018

- **Closing Date**

  - **Date**: February 15, 2018
  - **Time**: 1:00 pm

- **Tender Submission**

  - Tenders may be submitted at the office of the undersigned or by mail at the following address:

    **Address**: Box 2074, Nipawin, SK S0E 1E0

  - **Contact**: 306-861-7072

**FOR SALE BY TENDER**

RM of North Battleford No. 437

Having received proposals for the sale of land, the undersigned...
Barley

4602

Corn

4603
Corn, 10% 150, 8-24-307, 205, Phenix, 93-267, 136. Phenix. 93-267, 136.

Wheat

4619

Lentil

6455

Barley

4604

Corn

4605
Corn, 10% 150, 8-24-307, 205, Phenix, 93-267, 136. Phenix. 93-267, 136.

Wheat

4619

Cereal Seeds

Barley

6400

Corn

6401
Corn, 10% 150, 8-24-307, 205, Phenix, 93-267, 136. Phenix. 93-267, 136.

Wheat

6419

Lentil

6455

Barley

4600

Corn

4601
Corn, 10% 150, 8-24-307, 205, Phenix, 93-267, 136. Phenix. 93-267, 136.

Wheat

4619

Lentil

6455
**GRANULE TECHNOLOGY: DISPERSES GRANULES**, **SODERGLEN RANCHES**

**GOMER GLU**

Reducing feed costs and saving time is the goal of using granules. Soderglen Ranches, the Landmark Beef Creek Ranch, located on a 160-acre ranch in North Dakota, uses granules to help feed their beef cattle. The granulates are a key ingredient in their feed program and are used to help distribute hay and other feed ingredients throughout the feed yard. The use of granules has helped Soderglen Ranches to reduce feed costs and improve the efficiency of their feed program.

**RELAY TECHNOLOGY:**

Soderglen Ranches, the Landmark Beef Creek Ranch, located on a 160-acre ranch in North Dakota, uses granules to help feed their beef cattle. The granulates are a key ingredient in their feed program and are used to help distribute hay and other feed ingredients throughout the feed yard. The use of granules has helped Soderglen Ranches to reduce feed costs and improve the efficiency of their feed program.

**BLACK GYPSUM DM**

Soderglen Ranches, the Landmark Beef Creek Ranch, located on a 160-acre ranch in North Dakota, uses granules to help feed their beef cattle. The granulates are a key ingredient in their feed program and are used to help distribute hay and other feed ingredients throughout the feed yard. The use of granules has helped Soderglen Ranches to reduce feed costs and improve the efficiency of their feed program.

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**FARM/RANCH | 8016**

**ALTHOUSE MONEY FARMS INC.**

1-877-790-2502. Hwy 9, Blaine County, BC. Grower, grower, grower. Manager. 5-10 years experience required. Must be able to operate grain trailer hoppers. 1-866-663-0000.

**FARM/RANCH | 8016**

**FULL-TIME FARM LABOURER Help required for farm operations. Must have mechanical and medical ability. Duties include spraying, operating various tractors and other farm equipment, as well as general farm labor duties. $$55K annually. 34243 Old Coach Rd, Lumby, BC. Contact: M. Tompkins, 604-872-3192.**

**FARM/RANCH | 8020**

**MARSHALLS DAIRY AND MEAT**

Dairy farmer / manager. 30 years experience. 1-844-844-4526.

**HUMIC DM**

Soderglen Ranches, the Landmark Beef Creek Ranch, located on a 160-acre ranch in North Dakota, uses granules to help feed their beef cattle. The granulates are a key ingredient in their feed program and are used to help distribute hay and other feed ingredients throughout the feed yard. The use of granules has helped Soderglen Ranches to reduce feed costs and improve the efficiency of their feed program.

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Sheep produces five lambs as storm rages

The multiple birth, which is a record for this British farm, occurred during a vicious storm that battered much of Europe

**BY CHRIS MCCULLOUGH**

The weekend storms that hit Britain were not the only danger on the farm, as a British farmer recently gave birth to a whopping five lambs.

Alastair Kerr from Ballymena, Northern Ireland, was out of bed Wednesday, as a deadly storm raged across Western Europe, and was surprised to hear the sound of a ewe bleating outside his barn.

Kerr runs a flock of pedigree Hampshire Down sheep mixed with other breeds and has 111 ewes set to lamb this winter.

This particular ewe is a Zwartevels Beltex crossbred, which was impregnated by a Texel ram.

“She was showing signs of lambing late on Tuesday night when Storm Eleanor started to appear, and I knew that she would lamb at some stage in the night,” Kerr said.

“I had no idea she was carrying five lambs, which is a record for my flock here,” he said.

“Normally it’s not ideal to have so many lambs from one animal as they can be small and won’t last. But in this case all five are doing well and we are topping them up with colostrum at regular intervals. Let’s see how they get on.”

Kerr is no stranger to ewes producing high numbers of lambs: last year his flock produced four sets of quadruplets.

“It is a tough ask for the mothers, especially if they are first time mothers,” he said.

“Normally it’s not ideal to have so many lambs from one animal as they can be small and won’t last. But in this case all five are doing well and we are topping them up with colostrum at regular intervals.”

“One of the most impressive things is the efficiency of the birthing. The ewe lambed easily herself without any assistance from me and gave birth to four male lambs and one female.”

“They are all very healthy and feeding well,” he said.

“It is quite rare for five healthy lambs to be born. In fact, the odds of a sheep having quintuplets is said to be one in a million.”

The multiple births were also a unique event for Kerr’s six-year-old son, Sam, and three-year-old daughter, Nicole, who just can’t stay away from the new family.

Members of the American Association of Railroads, including the BNSF Railway Co., say abandoning NAFTA would be a mistake and the consequences of U.S. withdrawal could be re-negotiated every five years.

“NAFTA would be a mistake and the consequences of U.S. withdrawal could be re-negotiated every five years,” Robert Arnason wrote.

American railways ask NAFTA members to stick with deal

**BY ROBERT ARNASON**

Another U.S. industry is standing up for the North American Free Trade Agreement—America’s railways.

In an op-ed published last week, the Association of American Railroads argued that abandoning NAFTA would be a mistake and that Canada, Mexico and the United States should be looking for ways to improve the trade deal.

“The conversation we need to be having is how do we enhance the NAFTA trading bloc’s capability of competing globally and specifically America’s ability to compete globally,” said Union Pacific chief executive officer Lance Fritz, who was quoted in the opinion piece.

U.S. President Donald Trump has threatened to pull the U.S. out of NAFTA, repeatedly describing it as the worst trade deal in history.

Since August, representatives of Mexican, Canada and the U.S. have held five rounds of negotiations to modernize NAFTA, but discussions have been difficult.

A number of trade watchers are concerned the U.S. is on track to terminate NAFTA. American negotiators have put forward proposals that are untenable for Canada and Mexico, such as changing rules of origin around automobile manufacturing so that half of all content comes from the U.S. and introducing a “sunset clause” in which the deal could be re-negotiated every five years.

The railroad association, like many other business groups, said the sunset clause would only cause business uncertainty.

American ag groups have loudly voiced their support for NAFTA over the last few months. Commodity groups and farm organizations have issued hundreds of news releases detailing the economic benefits to U.S. farmers. In November, 168 agri-food groups and Fortune 500 companies such as CHS and Cargill sent a letter to every U.S. governor, reminding state politicians of the importance of NAFTA and the consequences of U.S. withdrawal.

Edward Hamberger, president of the railroad association and author of the op-ed, said the agricultural and railway industries are deeply connected.

“I often see a line of tank cars moving raw goods for input into chemical manufacturing,” Hamberger wrote.

“These trains are going from Canada to Florida, where their contents will help create agricultural fertilizers. Those materials will then move by railroads to the U.S. heartland, helping America’s farmers generate yields.”

Hamberger also cited economic evidence on the value of NAFTA for the railway industry:

• Railroads moved 15.3 million tons of fertilizers and ag chemicals in 2016, much of it across borders.

• Forty-two percent of rail car loads and intermodal units and about 50,000 U.S. jobs are directly associated with international trade.

“Less trade means less jobs and less revenues for a host of industries, which means less investment to serve customers and a weakened U.S. economy, Hamberger said.

“The railroad industry stands united with the continued efforts of agriculture advocates to preserve the benefits of NAFTA.”

What’s your take? Join us at www.producer.com or follow us on social media.
La Nina prompts Aussie beef export forecast boost

SYDNEY, Australia (Reuters) — Australia has raised its forecast for beef exports by five percent as farmers send more cattle to slaughter to capitalize on strong Asian demand ahead of a La Nina weather event expected to provide near perfect grazing conditions.

Beef exports from the world’s fourth largest seller will total 1.145 million tonnes this season, up from its previous estimate in September of 1.09 million tonnes.

Most of the increased exports will flow to Japan and China, ABARES said, two countries where Australia enjoys favourable access following the completion of trade agreements.

The increased export forecast comes as ABARES lifted its forecast for beef production to 2.32 million tonnes, up nearly four percent from the September estimate of 2.24 million.

The increased production is a boost to Australian exporters, such as Cargill. They had been forced to idle processing plants over the last two years as farmers sought to rebuild herds after the end of the strongest El Nino in nearly 20 years in 2014, which drove slaughter to a record high.

The expected arrival of a La Nina will likely extend the boom, bringing wet conditions across Australia’s largest cattle-producing region, stimulating pasture growth to better fatten livestock.

Although a boom to cattle farmers, ABARES said the wet weather will crimp Australia’s sugar production.

Australian beef exports will total 1.145 million tonnes this season

Brazil soy crop might post new harvest record

BRASILIA, Brazil (Reuters) — Brazil’s 2017-18 soybean harvest may be equal to or greater than last year’s record production, based on reports from the country’s deputy agriculture minister, Eumar Novacki.

“The crop is all seeded and will be harvested in a few months. We have been talking to farmers, and I think we may have a harvest that is bigger than previous years,” Novacki said in an interview.

He said he expected to reach an agreement with the United States Department of Agriculture on Brazilian fresh beef, and said Brazil has already sent information requested by the U.S. government.

Brazil may soon start buying Russian wheat, he added, as part of negotiations with Russia about another ban on Brazilian beef.

World may be hotter than expected by 2100

OSLO, Norway (Reuters) — World temperatures could rise 15 percent more than expected this century, obliging governments to make deeper cuts in greenhouse gas emissions to limit global warming, scientists said last year.

Average surface temperatures could increase up to 3°C more than previously projected by 2100 in the most gloomy scenarios for warming, according to a study based on a review of scientific models of how the climate system works.

The extra heat would make it harder to achieve targets set by almost 200 nations in 2015 to limit a rise in temperature to 2°C above pre-industrial times to restrict droughts, heat waves and more powerful storms.

“Once our global temperature stabilization target will require steeper greenhouse gas emissions reductions than previously calculated,” authors Patrick Brown and Ken Caldeira of the Carnegie Institution for Science wrote in the journal Nature.

The United Nations says that current government pledges to limit emissions are already far too weak to achieve the goals set by the 2015 Paris Agreement and put the world on track for a warming of more than 3°C.

William Collins, a professor of meteorology at the University of Reading who was not involved in the latest study, called it a “step change”.

“We are now more certain about the future climate, but the bad news is that it will be warmer than we thought,” he wrote in a comment.

The report examined existing scientific models of how the sun’s energy reaches the Earth and how some bounces back into space from clouds and the planet’s surface.

Such simulations, based on ever more years of satellite observations, help to understand the climate and make temperature predictions.

The models that best represent the recent climate “tend to be the models that project the most global warming over the remainder of the twenty-first century,” the scientists wrote.

In one pessimistic scenario, under which greenhouse gas emissions continue to rise until 2100, temperatures could rise by 4.8°C against 4.3°C estimated by a United Nations panel of experts in 2014, they said.

Models are a “synthesis of the Paris accord, which seeks to reduce direct billions of dollars of investment to cleaner energy such as solar and wind power from fossil fuels,” U.S. President Donald Trump dealt a blow to the pact by saying he will withdraw and instead promote the U.S. fossil fuel industry.

He doubts mainstream scientific findings that man-made emissions are the prime cause of warming.

In September, another scientific report suggested that human-kind might be able to emit more greenhouse gases than expected before breaching the Paris temperature goals.

Piers Forster, a professor of climate change at the University of Leeds in England, who was an author of that study, welcomed the Dec. 6 findings as a piece in a wider puzzle.

“It’s important to take account of all lines of evidence,” he said.

Ag tech startup raises $200 million to fund research

SAN FRANCISCO, Calif. (Reuters) — Farming technology startup Indigo has raised more than US$200 million from investors to fund its efforts to reform how crops including wheat, soybeans, cotton and corn are grown.

The Boston-based company announced Dec. 6 an additional $47 million investment led by the Investment Corporation of Dubai, a state-owned sovereign wealth fund, bringing its latest financing round to $203 million. Indigo is valued after the latest round at $1.4 billion, Indigo president and chief executive officer David Perry said in an interview.

The financing is one of the largest single investments into a private agriculture-technology company. It rivals SoftBank Group Corp’s investment into Plenty, a startup working on new technology to grow crops indoors, announced in July. That investment, from SoftBank’s Vision Fund, was $200 million.

Perry said Indigo will use the funding to open or expand new offices in Australia, Argentina and Brazil and continue to invest in research. The company raised $100 million last year, and has raised more than $400 million since its founding in 2014.

Indigo hired JPMorgan Chase & Co to facilitate the deal, Perry said. Indigo said it is working to create a new way to grow crops so they are more resistant to insects, drought, severe weather and nutrient-poor soil. The company says its formula of coating seeds in microbes will one day help crops to withstand environmental stresses and allow farmers to forgo chemical fertilizers, herbicides and insecticides.

“There is an enormous initiative to grow crops differently” and “in a more sustainable way,” Perry said.

Indigo’s business is a work in progress and far from proven, Perry said. Most farmers that use Indigo technology still also use fertilizers and chemicals on their plants. The company works with farmers in the United States, Argentina and Australia.

Indigo contracts with farmers before their growing season begins and sells the crops at a premium. Perry said for instance, Indigo sells its wheat to millers and brewers, and the wheat farmer earns about 15 percent more from the sale than average prices.
In-ground steel continues to evolve

Agricultural engineers focus on what happens underground where the sun don’t shine

BY RON LYSENG
WINNIPEG BUREAU

FARGO, N.D. — Within the overall realm of cultivation and seed and fertilizer placement equipment, the in-ground working tool is the one singular component that continues to evolve rapidly. Every farm show seems to feature new soil-working steel.

Money is a chief reason for the ongoing focus on developing new soil-working tools. When dealing with trash management and seed bed preparation, it’s more cost-effective for a research and development team to fine-tune in-ground tools than to design a whole new machine. Costs aside, fine-tuning the design of itself can give engineers greater performance benefits than modifications to the basic drill or cultivator. After all, it’s the in-ground tool that does the actual work.

Trying different options and combinations are your best bet when you get right down to the nitty gritty of extracting optimal performance from your seeder or cultivator, says Wade Oman, territory manager for Kuhn Krause in Hutchinson, Kan. Farmers from Western Canada and the U.S. Plains and Canadian Prairies got to experience the gear at the Big Iron farm show in Fargo this past fall.

The Kuhn machine that attracted the most attention at the show was the Excelsior 8005 vertical till cultivator, which mixes soil and residue and prepares the seed bed. It can work at 10 m.p.h. in rough conditions.

Don’t let the tractor size fool you. The 40 foot 8005 on display at Big Iron carried a price tag of about US$139,000. Ingersoll Iron carried a price of about US$119,000.

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Oman said farmers wanted a wider range of coulter angles so they could do more soil disturbance in certain conditions. In addressing the issue, Kuhn devised an adjustable system for the 8005 with a range of one to five degrees.

Another unique feature on the 8005 is the star wheel that follows between the paths of every pair of coulters. Oman said that on any vertical till machine, the soil strip between any two coulters is not disturbed. The mid-section surface crust remains hard.

“So we’ve designed these star wheels to break up that centre crust to give you a uniform seed bed,” he said.

“With baskets at the rear of the 8005, one pass in the fall usually creates a good seed bed without further harrowing. If the field is still too rough, the 8005 can run at 40 m.p.h., so a second spring pass is an option. The 8005 requires 10 horsepower per foot. Maximum size is 50 feet. To help save time, the spherical pivot bearings in the walking beams do not require daily greasing.

Research and development into the soil-working tools continues, even though the frames might not vary much. The new Kuhn Excelerator 8005 uses a self-sharpening blade with a scalloped circumference and 32 flutes. It can work at 10 m.p.h. in rough conditions.

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The 40 foot 8005 on display at Big Iron carried a price tag of about US$139,000.

run.lyseng@producer.com

Visit us online at www.producer.com to see a video about this story.
Two companies offer remote controlled drop pans that allow growers to safely collect samples of material blown out the back of combines.

Both products are powered by electromagnets that disengage at the push of a button. The pans then fall from their mounted position under the combine and collect a representative sample of how much grain is being blown over. ScherGain’s drop pan is constructed out of heavy plastic and mounts directly under a combine with the electromagnets.

Bushel Plus’s offerings built out of aluminum and come in two pieces. The base magnetically clings to the bottom of a combine and the pan clings inside the base with the electromagnets. Both systems are battery powered and mount onto the bottom of any combine in seconds. Operators disengage the chopper and chaff spreader on their combine before dropping the pans to collect a sample.

However, the two systems differ in how users assess their losses once the sample is collected. With SherGain, the sample is cleaned and then dumped into a grain gauge. From there you just look at the charts. You don’t need an app, you don’t need anything.

TREVOR SCHERMAN
SCHERGAIN

“Even if you get that down to a bushel, that’s two bu., savings right now, ballpark $20 per acre,” he said. ScherMan said using a yield monitor without calibrating it is like using a speedometer without any numbers on it.

“We actually have done all the math. You just screen it out and dump it into what we call our grain gauge. From there you just look at the charts. You don’t need an app, you don’t need anything.”

TREVOR SCHERMAN
SCHERGAIN

“We also had a lot of fusarium problems that year,” he said. “So we dropped the pan quite a few more times to figure out the sweet spot to adjust the wind and the sieve settings to blow the fusarium out the back.”

Kringe said the fusarium moved on the plants fairly early that year, so the kernels were relatively small, enabling the work crew to tweak the combine to throw the smaller diseased kernels over while retaining the quality wheat.

“Instead of a No. 3 feed wheat, we could market the 1,600 acres of wheat as a No. 2,” he said. “So a three bu. less loss on 1,600 acres, and going from a No. 3 feed wheat to a No. 2. That was a savings of about 65 to 70 grand saved for this farmer within a couple of days.”

The SherGain drop pan sells for $1,800. For more information, visit www.schergain.ca.

The Bushel Plus retails for $2,000 to $2,500. For more information, visit www.bushelplus.ca.

robin.booker@producer.com
Urea on snow? Just say no

The calendar says, ‘yes, do it,’ but the data says, ‘whoa’; researchers adamant that applying urea on frozen fields is a bad idea

A few prairie farmers are taking advantage of fields almost barren of snow this winter to apply urea, a practice akin to spreading hundred dollar bills to frozen ground.

That’s the opinion of Rigas Karamanos, senior agronomist for Koch AgroServices in Calgary.

“This is not agronomically sound. Somebody’s telling them it’s OK, but it’s not OK,” he said.

“When nitrogen fertilizer sits in snow or frozen ground, your losses can be as high as 50 percent. It’s terrible.”

Karamanos said the people who are advising this practice are not being honest with their clients.

“Who, you ask? It’s people who simply want to sell fertilizer, that’s all,” he said.

“They’re who’s telling producers it’s OK. There’s so much research that’s been done on this practice proving that it’s absolutely wasteful. It is not a good practice at all.”

“It’s interesting you ask about this now because I’m now notion dealing with a lot of farmers who are asked by the fertilizer company, the farmer applied his fertilizer on frozen hard ground and didn’t get the results he wanted. Now he’s coming plaining the fertilizer was bad. Well, why would he expect to get results in those conditions?”

The perceived benefits of spreading urea on snow are obvious. Producers who engage in this practice see it as just another step forward, expanding their fall fertilizer program deeper into the calendar. Once the frozen ground is too hard for banding, they simply switch from in-ground application tools and keep on trucking with surface application spreaders.

While farmers know they’ll take a big hit on return on investment, the operation does give them two distinct time advantages in the spring.

• All fertility is already in place, so they can get the seeding rig on the field sooner.
• They don’t have to waste time stopping for fertilizer fills. With only seed and micronutrients in the air cart, an operator can run his full shift without stopping.

The perceived time advantage may be obvious to growers, while the genuine dollar cost is well known to agronomists but probably not to all producers.

North Dakota State University soil scientist David Franzen conducted field trials comparing snow-applied urea to soil-applied urea in the fall of 1995. The fields were seeded with wheat in the spring of 1996. Franzen said the bushel and protein numbers speak for themselves.

Franzen said snow stays on the surface when applied to frozen soil. If it cannot penetrate all the way to the water table to potholes, lower spots in the field or the field completely, the study said.

If you’re on flat land where the spring melt remains in your wet spots, the runoff may not be a big agronomic problem or a public perception issue. However, these are the kinds of scenarios cited by members of the public who want to clamp down on farming practices.

Karamanos gave a presentation to the Farm Forum in Calgary in 2016 in which he outlined the conditions pretty well eliminates nitrogen loss ranged from 49 to 61 percent.

“Producers must consider the benefits of... lower fertilizer costs in the fall against the risk of large potential N losses over winter,” he said.

According to the factsheet published by Alberta Agriculture: “The fertilizer granule needs to go through the snow, contact the soil and dissolve. It’s also important to recognize there are economic losses and environmental considerations.”

“Productivity with fertilizer applied early in the year dropped by as much as 15 percent over the same application occurring in early spring.”

“Producers need to be aware of the type of fertilizer,” the factsheet published by Manitoba Agriculture said: “In the case of urea, hydrolysis converts the urea to ammonium and urea is not incorporated, the ammonia is lost to the air.”

“Spreader sales have increased 50 percent since Salford bought Valmar three years ago, and the trend continues its upward curve.”

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BY RON LYSENG
WINNIPEG BUREAU

Fertilizer spreader sales on the rise

Global warming or no global warming, fertilizer sales go up. This is true for granular spreaders are up, and our climate is the reason. As growers become more attuned to the importance of their seeding dates, they’re looking for ways to squeeze the most work out of their big seeding machines. One way of doing that is to put down most, if not all, of their fertilizer before seeding, which is why spreaders are gaining popularity.

“Spreaders sales are definitely increasing. It’s because guys are trying to save a little time in the spring,” says Patrick Grandmont of Leo’s Case IH north of Winnipeg.

“Down in the States, they seem to take their time seeding and putting down fertilizer. But up here it’s panic. It seems we have about three weeks to do everything.”

“We’ve been doing a pretty good business on spreaders, especially in the wetter areas like the Beachy area. There’s a lot of guys with these Salford floaters machines putting on granular. Some growers are putting on 300 tons or more.”

“They don’t want to stop so often to fill the fertilizer tank, so they broadcast in advance of seeding.”

“We’re selling a lot of the Bourgault disc drills with the mid-row banders. They put some dry granular in 50 percent, measuring nitrogen with their high rates, most of it has to go on prior to seeding. Otherwise they’ve got a very even, precise fertilizing. So we’re doing a lot of business with the guys over at Sal- ford Valmar in Elm.”

Valmar spreaders, designed by Charlie Balmer 30 years ago, have become known around the world as the leaders in this market.

Over at Elie, Jason Janzen said spreader sales have increased 50 percent since Salford bought Yabe dry three years ago, and the trend continues its upward curve.
Finnish articulated loaders now available in Canada

Small but mighty loaders come with heated seats, which are built for the cold

BY ROBIN BOOKER
SASKATOON NEWSROOM

RED DEER — Small articulated loaders built in Finland are now available to Canadian producers through JAK Equipment in Leduc, Alta.

The Avant series of loaders has more than 190 attachments that focus on farming and construction tasks.

“Options are basically endless for these things when it comes to attachments,” Bob Fedorchuk of Avant Techno Canada said at Agri-Trade in Red Deer.

“They have a telescopic boom that reaches out about two feet. The 600 series will reach up to nine feet, the 700 series will reach up to 10 feet.”

The broom and blade options are used to clean out barns across Europe. Canadian producers will find the snow blower, mower, post hole auger, backhoe, grapple and horse arena harrow attachments useful.

The biggest unit we have is a 760. It’s a 57-horsepower turbo that has the capability of running at two speed ranges; one at 13 km-h or the other two speed at 30 km-h, depending on your basic needs on whether you need to go that fast or not,” Fedorchuk said.

The 600 series has a 37 h.p. Kubota engine, and its speed ranges from 13 to 24 km-h.

“The machines do come in a single speed as well so if you don’t need that second speed, you can just stick to the single speed,” Fedorchuk said.

The 700 series weighs approximately 5,000 pounds.

“The 600 series weighs approximately 4,000 lb. and has a lifting capacity of around 2,800 lb. Fedorchuk said the fuel efficiency on the loaders make them stand out in the market.

With the 700 series loader, “on an eight hour day you are burning just over a litre an hour,” Fedorchuk said.

“Over the course of a year, if you start breaking down your overall costs, just on fuel savings alone you’ve almost paid for the machine.

The Avant articulated loaders come with differential locks. If you’re starting to spin out and you’re losing traction, throw your
diff lock on and it throws power to allyour wheels,” he said.

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The two speed hydraulic pump provides operators another option when working.

“So if you just want to throw the snow or rocks or whatever you’re moving at that time just a short distance, if you want to chuck it really far, put it in pump two and that will speed everything up,” Fedorchuk said.

For more information on Avant loaders, visit www.avanttecnousa.com.

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SMALL GRANULE, ENORMOUS POTENTIAL.
Breed associations adapt

They have found it is important to change with the times to boost animal performance

BY BARBARA DUCKWORTH

REGINA — Breed associations have been around for more than a century but today their roles are changing.

Wade Shafer, executive vice-president of the American Simmental Association, said the beef sector will maintain the need for breeds and associations but their functions may change. More crossbred animals may be used as breeding stock similar to the hog industry, in which almost all boars used at the commercial level are hybrids.

“There is more of it going on in the United States than here,” Shafer said.

“I think it is an inevitability that the lines between breed associations will be blurred and the lines between breed will be blurred. It doesn’t mean we don’t need to keep track of breeds and what composition an animal is, but what it does mean (is) it will become commonplace for people to be buying bulls that have multiple breeds in place,” he said.

More research collaboration among breed associations and resulting genomics analysis can provide more information to improve mating decisions. However, purebred animals will always have a role to play in the same way the hog and poultry industries have selected for high-

Breed associations have spent decades convincing producers that breeding stock needs to be purebred.

“You can actually have seed-stock that is crossbred and introduce that into your herd and actually improve your bottom line,” Shafer said.

“In the U.S., Angus has become so dominant it is not unusual for a high proportion of the commercial producers to have purebred Angus cows. The problem is, there is no hybrid vigour in purebred Angus cows so there is getting to be a movement by commercial producers to introduce other breeds into their herds,” he said.

He estimated 70 percent of commercial herds in the U.S. are straight-bred Angus.

“These straight Angus herds have been tapering off for fertility. Their breeding rates are going down. It is nothing bad about Angus. It is just straight-bred cattle. If you go to high proportions, you lose hybrid vigour and the first place you will see it is in loss of fertility,” he said.

Canada has more crossbreeding than the United States and there are fewer straight-bred cattle in commercial herds.

“We call it mongrelization but in some ways it might be better,” he said.

Breed associations have spent

THE NEED FOR RUBBER OVERPANTS

Veteran Jamie Rothenburger describes the process and importance of doing post-mortem exams on cattle

Barbara Duckworth | producer.com

Hey, that’s my hay!

Soil health important to ranchers

While ranchers may manage their fields differently, most know the value of healthy soils.

Many ranchers are working to rebuild pastures that produce better forages, which means better weight gains for their cattle and more money in their pockets.

“We’ve learned that if we can do something, even little things, it can really increase your production,” said Bill Wilson, who ranches in the Peace Region near Dawson Creek, B.C.

Wilson and other ranchers were speaking at the Western Canada Conference on Soil Health and Grazing in Edmonton.

Wilson and pasture manager Jamie Rothenburger manage about 200 head on 1,800 acres of mostly rented land.

When Robinson came into the picture, she noticed many bare spots on the pasture and not as much growth as she would’ve liked.

Lots of the land before had been primarily used for hay production and it eventually wore out.

“In the area, land was cheap,” Wilson said. “So, if people needed more grazing land, they would just go buy or rent land that was already there and that way anymore.”

They both got to work. They installed fences, added new water systems and bale grazed — trying to keep the cattle out on pasture as long as they could without over-working the land.

Robinson said she noticed that beef gains were up for just one year improved her soils.

“That’s our approach on the ranch. We keep things going at a time. Let’s not fix the world because we can’t afford to do everything at once, so we’ll just make it work for us,” she said. “We don’t expect change overnight. It’s a 10 to 20-year plan.”

Other ranchers at the conference said they generally approach upgrades in that same way.

Graeme Finn, who ranches near Madden, Alta., gets his cattle to graze all year round.

In the spring, the animals spend about six weeks working native land that has never been broken. After that, they’re moved to pastures with lots of legumes.

Calving continues into June, and then throughout the summer the cattle are rotated through different areas of the pasture. They spend 16 to 20 days grazing in sections fenced with hot wire.

When it’s winter time, the cows continue to work and graze while the bulls bale-graze.

“We’re averaging about a pound a day for the sale and we’re not taking anything off the cow, so it’s working out pretty well for us,” he said.

jeremy.simes@producer.com
Seneca Valley Virus, an illness in pigs, is on the rise in parts of the United States, and that should put Canadian hog producers on alert.

Dr. Julia Keenliside, veterinary epidemiologist with Alberta Agriculture and Rural Development, said the recent outbreaks of Seneca Valley virus in the United States and most recently in Canada, have heightened the concern that the virus could arrive in Canada.

Seneca Valley virus is a growing concern for producers in the United States, and the virus has been confirmed in Canada in recent weeks.

The virus is spread through contact with infected animals, and once a herd is infected, it can be difficult to control.

Producers in Canada are being advised to be on the lookout for signs of the virus, which can cause respiratory problems, anorexia, and in severe cases, death.

Major outbreaks of the virus have been reported in the United States in recent years, leading to the implementation of strict biosecurity measures and the need for widespread testing.

For more information on Seneca Valley virus, producers should contact their local animal health officials.
Better bale storage can improve cattle health

BY BARBARA DUCKWORTH
CALGARY BUREAU

OLDS, Alta. — Quality losses are inevitable in hay left to sit outside in fields over winter. But producers can take steps to better protect them, said Barry Yaremcio, beef and forage specialist at Alberta Agriculture.

“You need to do something to protect those bales from weather to optimize the use of that forage, especially if you have got carry-over,” said Yaremcio.

Rain and winter weathering reduces protein content and digestibility, he said at a recent feed workshop held in Olds.

“Feed intake is reduced when hay is stored outside. On average, for a beef cow you will lose half a pound per day on intake for hay that is not stored and protected,” he said.

Precipitation damage cannot be controlled but if rain comes when the hay is at 20 to 25 percent moisture, a lot of nutrients can be lost. Half the crop could be lost if 70 millimetres of rain were to fall on hay within a day or two of baling. "Stacking in a pyramid is probably the worst way you can store your hay because the moisture comes off the top bale and goes down, and anywhere the bales touch is where you get the damage," he said.

Yaremcio also recommends against stacking bales in a mushroom style because the bottom bale absorbs all the moisture. Net wraps improve the bales’ long-term storability and help to better shed water.

Plastic covers can be as effective as a shed if the plastic stays in place and there is no damage or holes caused by animals. Some people close both ends of the plastic. That causes overheating, and as temperatures rise in the plastic, moisture migrates out of the bales.

Spoilage can occur in various forms and in some cases could make livestock sick. Producers are encouraged to have their hay tested. Ergot and mycotoxins have been a problem the last few years, caused by cool, cloudy weather during flowering of open pollinating cereals and grasses.

Long-term effects on livestock health include feed refusal, digestive upsets, pneumonia like symptoms, hoof problems or even death.

“If you want to prevent any problems with ergot or toxicity, you need to cut before those plants are pollinated,” he said.

There are 40 types of alkaloids in ergot bodies and four different strains are found in Western Canada. Recent tests find toxicity levels 2.5 to three times higher than what is being reported in the U.S.

Outdated feed standards once recommended no more than one kernel of ergot-infected kernels in 1,000 should be used as feed. Today’s standards recommend one kernel in a five-gallon pail as the limit.

In 2014, 964 samples were submitted for testing. In 500 of those samples, more than half had 200 parts per million of ergot contamination. In 2015 the analysis showed about 40 percent of the samples were contaminated.

Moulds and mycotoxins from Fusarium graminearum produce a pinkish white fungal growth. These can cause cattle to refuse feed and also result in vomiting and diarrhea. Symptoms are more severe in mono gastric animals.

Pigs can only handle one p.p.m. burning before they can digest up to 37 p.p.m. These toxins can affect reproduction.

Two of the mycotoxins formed within Fusarium can destroy the epithelial tissue in cattle rumen so the animal is incapable of efficiently absorbing nutrients.

Suppression of bone marrow development can also occur and skin disorders like photosensitivity may appear. It resembles a sun burn around the eyes and udders.

Aspergillum is a white mould on heards or tough grain or on hay that was baled tough. It’s more of a nuisance and is a naturally occurring bacteria. Penicillum forms a green or blue-green mould that is found on forage and can cause abortions, retained placenta and reduced fertility.

Cattle need fresh clean water to thrive.

“When you get more than 4 percent sulfur in a ration, the pH drop in the rumen is fairly significant and enough to destroy the bacteria in the rumen and the B vitamins, especially thiamine,” he said.

A thiamine deficiency in cattle may cause the brain to swell, killing the animal.

A 1,400-pound lactating cow on pasture consumes about 60 litres of water per day. In hot weather, water consumption doubles so producers must monitor temperature, water intake and sulfur in diet.

In recent years, producers have been encouraged to fence dugsouts and pump out the water to troughs. Doing so improves water quality so the cattle have access to fresh water, manure and contamination and cows drink more.

Cattle need clean water to thrive.

“Roughly 10 percent of cattle deaths are related to water and about 40 percent are related to feed, with the remaining 50 percent attributed to disease,” said Yaremcio.

As well, they should leave 15 to 20 cm of space between bales in single rows, facing prevailing winds so air can better circulate.

“Stacking in a pyramid is probably the worst way you can store your hay because the moisture comes off the top bale and it goes down, and anywhere the bales touch is where you get the damage,” he said.

“Temporarily the worst way you can store hay because the bottom bale absorbs all the moisture. Net wraps improve the bales’ long-term storability and help to better shed water.”

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Examining dead stock for causes of death is valuable

ANIMAL HEALTH

JAMIE ROTHENBURGER, DVM

The diesel engine snarled to life and I headed out of town. Reaching the feedlot, I rumbled past rows of feed bunks with various sized steers and heifers, placidly chewing their cud or rummaging for grain in what would be their final home before entering the plant that would turn their flesh into beef.

An eight-foot upright plank wood fence segregated an area in the far back corner of the property. This is the dead pit, and on this day it contained five bovine carcasses of various sizes. Armed with a sharp butcher’s knife, a pair of pea soup green steel-toed rubber boots, an impervious pair of rubber overpants and a washable camera to document my findings, I’m ready to give them their final examination.

Autopsy most animals, including cattle, first cut through the skin and flesh of the armpit. This peels the front leg across the back and out of the way. Next is a cut into the hip joint and a connecting incision through the skin to expose the belly muscles and rib cage. Using a battery-operated reciprocating saw, I enter the chest cavity and remove the right side of the rib cage.

Opening the carcass is what I refer to as the grunt work of the autopsy. What follows is the more refined, head-to-toe systematic examination of each major organ plus selected bones and joints.

Piece-by-piece and cut-by-cut, often up to my plastic-covered elbows in blood, pus and digested feed material, I’m looking for signs of abnormalities that may indicate disease. Is the tissue discoloured, softer than normal or twisted or turned out of place? Does it ooze pus when I slice into it? Are there parasitic worms in the lungs, guts or other organs? Is something there that shouldn’t be such as a tumour or abscess? It’s even more challenging to notice if something is missing.

Sometimes I find nothing at all — the tell-tale signs of disease are hidden to the naked eye and may reveal themselves only under the microscope.

On this day, the causes of death for these five cattle were obvious. One had broken a leg and had been put down. Four had pneumonia typical of bovine respiratory disease, which no amount of antibiotics was going to cure and is why they were euthanized.

Their infected lungs were heavy, wet and coated by tan-yellow material with the consistency and look of baked cheese. When I sliced into the lung tissue, fluid and pus oozed from the clogged airways. In other areas, the affected tissue was dark purple instead of its normal light pink colour, indicating tissue death and severe disease.

These individuals represented the most ill animals in the place and would never have made it to slaughter or the human food chain. Some may question the wisdom of examining dead animals and the associated expense.

However, an autopsy examination can determine the cause of death in animals that die on their own or provides information about the disease in animals that were euthanized because of illness. If signs of disease aren’t clear, the autopsy is still valuable to understand what diseases are not present. One autopsy provides information about the individual animal, but collectively, the results of multiple autopsies become useful data to producers and veterinarians.

Armed with the information about the ongoing disease processes and reasons for culling animals, people can make informed decisions about their management. For instance, did a specific treatment work as expected? Knowing why animals die allows for choices about how to keep those that are living productive and healthy. And so I’ll continue my quest to understand death and disease, one autopsy at a time.

Dr. Jamie Rothenburger is a veterinarian who practices pathology and a PhD student at the Ontario Veterinary College. Twitter: @JRothenburger

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Delay frustrates Monsanto

TruFlex, the next generation of the Roundup Ready trait, has been held up in China since 2012; it is one of several products that the company says is coming down its R&D pipeline.

Robb Fraley, the company’s chief technology officer, said it is still awaiting Chinese regulatory approval of its TruFlex Roundup Ready canola.

TruFlex, which is Monsanto’s next generation Roundup Ready trait, was approved in Canada in 2012.

Fraley said the trait has been mired in China’s regulatory system for far too long.

“That technology, in my mind, should have been in the Canadian market three or four years ago,” he said.

“We’re working hard to address any of the questions or concerns that the Chinese regulatory body may have because I think it’s a key technology and one that will be important for canola production in Canada.”

Another trait being developed by the company is dicamba-tolerant canola, which is in phase two of the company’s Genuity pipeline. That means it is about five or six years away from commercial release. The trait is also being developed for corn and sugar beets.

Monsanto commercialized the trait in soybeans and cotton in 2017, and it was launched on 25 million acres worldwide. By comparison, Fraley recalls launching the Roundup Ready trait on three million acres in the mid-1990s.

The company expects U.S. farmers will plant 40 million acres of dicamba-tolerant soybeans in 2018, which would be double last year and would account for 40 percent of total soybean acres in that country.

Fraley also touched on the success of its increased investment in Canadian corn and soybean breeding programs.

He said the development of short-season, 70 to 80 day corn hybrids and double-zero and triple-zero soybeans is “one of the really remarkable advances” in the company’s research pipeline.

“We’re seeing corn yields of 120 to 150 bushels per acre, and we’re seeing soybean varieties where they perform at 40 to 50 bu.,” said Fraley.

Sam Eathington, chief science officer for Climate Corp., a subsidiary of Monsanto, said the company is working hard on bringing its FieldView platform to Western Canada.

The product was available on 35 million paid acres worldwide in 2017, including nearly one million in Eastern Canada. The company anticipates 50 million paid acres in 2018.

Eathington said the company has some work to do to make the platform compatible with the equipment and crops in the western Canadian market.

“We continue to make progress on that and we’ll continue to expand there as fast as we can bring that product compatibility to the marketplace,” he said.

But that contradicts an Oct. 25, 2017, news release from Climate Corp. announcing the launch of the Climate FieldView platform in Western Canada for the 2018 growing season.

“At this time, the Climate FieldView platform had a strong testing effort across many farm operations in Western Canada, enabling the Climate team to further develop the platform’s compatibility with all types of farm equipment and crops, including canola and wheat,” stated the release.

According to the release, the platform will be available for purchase on a per-acre basis in 2018, although it did not specify the dollar amount.

Eathington said Climate Corp. has advanced 17 products through its research and development pipeline.

The company is using artificial intelligence to diagnose disease in corn, soybeans and wheat. It is having success correctly diagnosing diseases through mobile tablet devices.

The corn disease diagnosis product is advancing from the development to pre-commercialization phase in the U.S.

Climate Corp. is using Monsanto’s plant genetics library in combination with its machine learning technologies to develop algorithms to help farmers select optimal seed products and appropriate planting densities for their fields.

Advanced seed scripting is in the development phase of the research pipeline in Brazil and the U.S. and the concept phase in Europe.

The company also offers manual fertility scripting for nitrogen, phosphorus, potassium and lime for corn. It will be taking that same technology to other crops including soybeans, wheat and canola.

Robb Fraley, Monsanto’s chief technology officer, says the company expects American farmers will plant 40 million acres of its dicamba-tolerant soybeans this year. | MICHAEL RAINIE PHOTO

Delay frustrates Monsanto

TruFlex, the next generation of the Roundup Ready trait, has been held up in China since 2012; it is one of several products that the company says is coming down its R&D pipeline.
TAKING CARE OF BUSINESS

COLIN MILLER

The federal finance department recently announced simplification to the new proposed income sprinkling rules that begin to apply in 2018. It has provided clear guidelines ("bright line tests") for when these rules will no longer apply to a taxpayer. The changes appear to provide relief for a majority of structures that may have in place. However, it is important to understand these tests because the rules continue to be very complicated, especially if you do not fall into the "bright line tests." To provide some background, the premise of income sprinkling is paying income to a family member in a lower tax bracket rather than to a family member in a higher tax bracket to take advantage of lower tax rates. One example of this under the current rules is a farming corporation paying family members older than 17 a dividend as a way to use their lower personal tax rates. In the past, this was possible as long as they were a shareholder, regardless of how active they were on the farm. The proposed changes look to take away the advantage of paying dividends to non-contributing non-arm's length individuals. To do this, the government proposed reasonability tests based on labour and capital contributions and risks assumed. If the amounts deemed to be unreasonable, the dividends will be taxed at the highest marginal tax rates. In 2018 this could be the difference of paying tax at 15 and 42 percent on dividends. The finance department has now released these "bright line tests" in addition to proposed income sprinkling rules. These tests exclude certain individuals from even having to apply the reasonability tests for income sprinkling:

- A farmer's spouse if aged 65 years or older (as part of an effort to better align the income sprinkling rules with the pension income sprinkling rules).
- Adults 18 and older who were engaged in a regular, continuous and substantial basis in the activities of the farm (generally an average of at least 20 hours per week) during the year, or during any five previous years.
- Adults 25 and older who own at least 10 percent of the votes and value of a farm corporation.
- Individuals who realize taxable capital gains from the disposition of qualified farm corporation shares or qualified farm or fishing property.

The finance department also provided relief for farms due to the seasonality nature. It has declared that the 20 hours per week labour contribution requirement may apply only to the busy parts of the year. This may provide relief for paying those children who come home for seeding and harvest and attend college or university or work off the farm in the winter months. Furthermore, it was confirmed that the finance department will not move forward on its proposed measures to limit access to the lifetime capital gains exemption. This allows for farms to continue to use many of the planning strategies available.

For further advice on how these new exclusions may affect your farming operation, be sure to contact a tax professional. Thank you to Riley Honess and Steve Scott of KPMG for their assistance with writing this article.

Colin Miller is a chartered accountant and partner with KPMG’s tax practice in Lethbridge. Contact: colin.miller@kpmg.ca.

New exclusions made to proposed income sprinkling rules

TAKING CARE OF BUSINESS

BY MICHAEL RAINIE

CALGARY — Biotech pioneer Rob Fraley feels the biggest benefits to agriculture from genetic tools haven’t come from inserting genes or building custom chemical compounds to support plants, but in plant breeding.

“And Canadian farmers have benefited greatly from this technology,” he said.

The head of Monsanto’s global research program said the current success and the biggest in productivity to come will be due to the advanced breeding tools that scientists like him now have to work with.

“We’re just at the beginning of a wave of innovations that are going to let us farm more efficiently, more productively and more profitably,” he said last month in Calgary at Grow Canada.

“These precise breeding tools let us change the genetics very quickly and create new combinations, but they also let us bring together breeding advances from all around the world. So, if a breeder in South America discovers a new disease resistance gene, we can map it and tag it and very quickly bring it into U.S. or Canadian germplasm....

“The same with drought tolerance. To pack those wonderful genetics into that seed with these new tools, it’s very exciting: the biotechnology traits, the gene editing tools, the RNAi tools, the microbial tools.”

He said the ability of breeders to work collectively using the power of databases and rapidly make selections, narrowing up choices for development is still only beginning to be tapped.

Improvements to digital management of agronomy on the farm will allow producers to take advantage of the breeding technology.

“Typically a farmer makes 40 or 50 decisions to grow each crop. If we can make each one better, based on data, that’s exciting,” he said.

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**CATTLE & SHEEP**

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*Var. f.o.b. feedlot, rail f.o.b. plant.*

**Feeder Cattle ($/cwt)**

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**Sheep ($/cwt)**

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**Average Carcass Weight**

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**Steers**

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**Hogs**

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**Sheep & Goats**

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CHRISTMAS LIGHTS

The sundogs were showing off on Christmas Day in the Rural Municipality of Lorne west of Altamont, Man. | JEANETTE GREGGS PHOTO

TEMPERATURE FORECAST
Jan. 11 - 17 (°C)

PRECIPITATION FORECAST
Jan. 11 - 17 (mm)

The numbers on the above maps are average temperature and precipitation figures for the forecast week, based on historical data last week since Nov. 1.

MANITOBA

Kitchen 0.3 -31.9 1.3 21.9 45

SASKATCHEWAN

Temperature last week
High
Low
Precipitation since Nov. 1
mm
% Assiniboia 4.5 -36.9 0.0 25.9 82 Broadview 1.3 -37.1 0.6 30.3 64 Eastend 1.3 -32.5 0.0 21.5 47 Estevan 3.1 -36.4 0.0 20.3 47 Kindersley 0.4 -30.9 0.6 21.9 77 Maple Creek 6.7 -34.5 0.6 28.4 73 Meadow Lake -0.6 -32.8 0.2 17.0 40 Melfort -0.9 -29.7 0.9 20.5 55 Nipawin -0.7 -30.4 1.3 26.0 62 North Battleford 0.4 -34.2 0.0 20.5 56 Prince Albert -0.3 -33.9 1.4 37.3 93 Regina 3.0 -31.7 0.0 18.2 52 Rockglen 2.1 -31.9 0.0 30.5 90 Saskatoon 0.9 -30.3 0.2 22.5 68 Swift Current 4.8 -31.5 0.0 20.5 61 Val Marie 2.1 -37.2 0.2 23.1 73 Wynyard -0.2 -27.3 0.0 21.5 53 Yorkton 0.3 -31.9 1.3 20.9 45

ALBERTA

Temperature last week
High
Low
Precipitation since Nov. 1
mm
% Brooks 5.0 -39.4 0.0 36.2 129 Calgary 9.6 -32.2 0.1 34.0 119 Cold Lake -1.0 -28.6 0.7 37.1 90 Coronation 3.5 -31.3 0.0 16.8 56 Edmonton 3.9 -29.1 0.3 19.5 50 Grande Prairie 5.8 -32.3 0.9 63.8 119 High Level -5.1 -39.4 0.2 37.9 70 Lethbridge 6.3 -37.8 0.2 29.1 85 Lloydminster 0.0 -31.0 0.0 12.9 34 Medicine Hat 4.9 -36.1 0.0 36.8 111 Milk River 9.0 -31.6 0.0 36.7 92 Peace River 2.3 -32.9 0.3 46.2 92 Pincher Creek 5.9 -36.5 0.0 77.6 125 Red Deer 3.0 -35.1 0.1 17.0 48 Stavely 11.6 -20.4 0.0 45.3 112 Vegreville 2.8 -29.3 0.1 15.1 42

MANITOBA

Brandon 0.1 -29.2 1.5 35.9 75 Dauphin 0.5 -27.0 0.0 21.8 67 Gimli -1.1 -35.0 0.0 21.3 41 Mebsta 1.9 -30.3 0.2 17.1 35 Morden 1.3 -28.2 0.3 21.3 61 Portage la Prairie 1.6 -29.2 0.6 30.7 53 Swan River -0.4 -29.5 0.5 22.0 62 Winnipeg -0.6 -30.4 0.0 17.4 32

BRITISH COLUMBIA

Cranbrook 1.9 -23.4 2.4 114.2 110 Fort St. John 3.8 -31.0 0.9 99.5 171 Kamloops 3.0 -18.3 5.7 50.7 76 Kelowna 3.2 -17.5 2.8 56.0 63 Prince George 2.7 -24.4 8.4 77.5 66

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Two years: $171.83 + applicable taxes
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Display ads: 1-800-667-7776
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HOURS:
Monday-Friday 8:30 a.m. - 4:30 p.m.
Thursday 8:30 a.m. - 8:00 p.m.
e-mail: classifieds@farmzilla.com
Asst. advertising mgr: SHAUNA BRAND

TEMP. MAP

PRECIP. MAP

Above normal
Much above normal
Normal
Below normal
Much below normal
n/a = not available; tr = trace; 1 inch = 25.4 millimetres (mm)

FORECAST

Temperature
Precipitation
High
Low
mm
% Calgary 13.6 -32.2 0.1 34.0 119 Edmonton 9.6 -32.2 0.1 34.0 119 Fort St. John 4.5 -29.1 0.3 34.0 119 Prince George 2.7 -24.4 8.4 114.2 110 Vancouver 10.7 -29.1 2.4 114.2 110

REFUND POLICY

Upon receipt of notice, advertising material can be cancelled at the advertiser’s cost.

Canadian farm produce organizations

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We acknowledge the financial support of the Government of Canada.

SUNDAYS UNPLUGGED

Long before he was an Eatonsville MP, Joe Harper used to work in dairy herds across the Prairies, overseeing thousands of animals every day. Words by GWEN THOMPSON

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