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HIEBERT BROTHERS LAUNCH DRONE AIRLINE

DATA INTEGRATION COULD CHANGE THE WAY YOU FARM

THINK LONG TERM WHEN UPGRADING GRAIN STORAGE

AgriSuccess





YOUNG FARMER PROFILE

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Editor, Kevin Hursh

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In our last issue, we regretfully missed the opportunity to recognize Loree Photography of Nanton, Alta., for the original photos of the Vesta family and their operation.

From the Editor



If you've visited a developing nation over the past decade, you may have been amazed at the number of people, especially young people, using cell phones. In many of these countries, land lines have always been relatively rare. People who have never had a phone in the house embraced cell phones when they became available. They skipped a step in the adoption of technology.

Within Canada, many young people no longer see any need for a conventional phone. They have their smart phone with them at all times, so what's the purpose of a phone that's tied to the house or apartment? Even though they grew up with land lines, they've progressed to the next logical step.

There's a technology adoption message in these observations. You don't need to have progressed through all the steps to be using the latest technology.

Many crop producers navigated fields using light bars on the tractor before advancing to GPS hands-free guidance systems. But you didn't need experience with a light bar to advance to hands-free.

Using the latest version of Windows isn't dependent on using all the earlier versions. The most modern and powerful versions of software for farm accounting and agronomy are available to everyone, whether or not they participated in the predecessor programs.

So, if you're like me and you haven't always been an early adopter of the latest technology, don't despair. Technology continues to become less expensive, as well as more convenient and intuitive, as it evolves. There are advantages to being a technology pioneer, but jumping in a bit later can also have advantages.

Do your research and invest in the technology that works for you. The latest and best is available to everyone, no prerequisites required.

We welcome your feedback and story ideas. Email kevin@hursh.ca or tweet @kevinhursh1.

This FCC publication is dedicated to helping producers advance their management practices. Here, you'll find practical information, real-life examples and innovative ideas for your operation.

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Your Money

Time to switch from variable to fixed rates?

BY LORNE MCCLINTON

If your mortgage is coming up for renewal, it might be a good time to consider moving from a variable to a five-year fixed interest rate product.

For the past decade, anyone borrowing for a mortgage has enjoyed lower interest costs if they had a variable interest rate, but with fixed rates at historical lows that may no longer be the case.

"People take out variable-rate loans because the interest rate is typically lower to start with," explains Shannon Weatherall, vice-president and treasurer at Farm Credit Canada.

"They could go even lower over the term of the loan," she says. "If the rate remains stable, or even if it increases slightly near the end of the term of the loan, you're likely better off with that lower variable rate."

"Every farmer has their own level of risk tolerance ... It's a very individual choice."

> Anyone with a variable rate is exposed to the risk that their rate could go up, though, and in a worstcase scenario, go up a lot. Weatherall says the rationale behind a variable-rate product starts to break down when rates are as low as they are now.

Big banks have posted fixed rates as low as – and in some cases even lower than – prime for the residential market. So, you have to ask yourself: if you're going to get essentially the same rate either way, and you aren't going to get the variable-rate benefit of a lower rate right off the bat, is it worth the risk of an increase in prime?

Between 2005 and 2015, the average residential variable rate in Canada ranged from 2.42 to 6.10 per cent, while the average five-year fixed rate was between 4.75 and 7.10 per cent. Now, residential five-year rates are being advertised with discounts that take them within two-tenths of a per cent of the lowest average variable rate of the past decade.

Gauge your risk tolerance

No one is even hinting that rates like those of the early '80s are going to re-occur, but can rates stay at record lows indefinitely? Variable rates rose to over six per cent in 2007, and it's not inconceivable they could rise again in the medium to long term. That said, we could see movement in the short term with improvements in the Canadian and U.S. economies.

"Every farmer has their own level of risk tolerance," Weatherall says. "Some want the lower rates that variable interest loans have offered, and are willing to accept the risk of rates rising. Others prefer the comfort of knowing exactly what they'll be paying in interest rates for the next five years. It's a very individual choice."

If you're willing to accept the inherent risk of a rate increase that goes with a variable rate loan, you should take the time to calculate what your best- and worst-case scenarios could be. Use a mortgage rate calculator, like the one at **fcc.ca/Calculate**, to see how it will impact your farm's profitability. If the results push your financial margins to the limit, you might want to reconsider your options.

Your Money

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Talk to an expert

Even experts find it very difficult to forecast interest rates. Still, Weatherall believes producers should make it a point to review their loan portfolios annually, and talk to their lenders about options.

"It's typically big news for people watching interest rates when the Bank of Canada announces a change to their overnight rate, as it will result in a change to the prime rate," Weatherall says. "Changes in fixed rates, though, are far less publicized, so it's not as obvious if the five- or 10-year rates are going up or down."

Fixed rates, she notes, are based on what the markets anticipate might happen. Often, by the time the prime rate has gone up, the fixed rate has already risen. Weatherall recommends that while you should keep abreast of prime and variable rates, you should keep an eye on what the longer-term rates are doing, too. This is where meeting with your lender about options can provide a lot of value, she says.

These two links at **BankofCanada.ca/interest-rates** can also be useful, she says:

- **Canadian Interest Rates** provides historical data on the overnight rate
- Bond Yields displays selected average yields

"It's really important for producers to understand what type of loans they have, and how changes might impact them," Weatherall explains. "It's always good to know what your options are for your long-term business needs."



VIDEO: Risk Manage Your Mortgage fcc.ca/ RateBalanced

Hiebert Co brothers launch drone airline

BY JOHN DIETZ

Young Farmer

Ahead of the curve is where the Hiebert brothers like to ride. Right now, they're well along the path to launching the first Canada-wide drone airline.

Curtis, 39, and Scott, 33, grew up on a Red River Valley farm near Carman, Man. Under their father Ron Hiebert's management, R&L Acres of Sperling, Man., grew and prospered for three decades using cutting-edge cropping practices.

The newest venture began in early 2013.

At that point, R&L cropped about 11,000 acres of corn, canola, soybeans and wheat. The family also had other enterprises. They formed a trucking company, selling big square straw bales into upper Midwest states (RLacres.com). They also sold, by the thousands, mounting brackets for GPS to farmers in Canada, the U.S. and Australia through John Deere dealers (TheAttachmentFarm.com).

Exploring a new opportunity

Both sidelines – trucking straw and building brackets to fit old GPS receivers on new machinery – began as ideas from Curtis. He was annoyed with an issue, and saw an opportunity.

Meanwhile, on the West Coast, his younger brother enjoyed a 12-year career in mortgage and investments markets. He had recently moved to Whistler, but maintained his farm roots and was looking for an investment opportunity.

In 2013, Scott discovered Curtis had picked up a hot new consumer toy: a DJI Phantom drone aircraft with a digital camera on board. He planned to try it for some crop scouting. "We started playing around with UAVs (unmanned aerial vehicles) at first," Scott says. "By the fall, we started really looking at the business aspect. Last year, 2014, was a test year. We tried about seven of them, and spent a lot of money trying things."

Their drone trials were mostly on the farm, but also in the mountains. They explored the capabilities of both fixed wing and rotor units, from inexpensive DJI Phantoms to a \$65,000 fixed-wing UAV from Eastern Europe. Scott spent several days in Slovenia, learning to fly that one.

They also tested the popular eBee from SenseFly in Switzerland, and the Precision Hawk built in Peterborough, Ont.

Most exotic was the Big Guy, as Scott calls it. Custom-built for them in Vancouver, the Big Guy has eight rotors and the "best of everything" for lift capacity, sensors and flying time. It can handle a five-plus kilogram payload, such as the professional Red Epic video camera.

Building a plan

While building his knowledge base and developing a business plan, Scott demonstrated his UAVs to search-andrescue operators in the mountains at Whistler, and to RCMP crime and accident scene investigators across the Prairies.

He also focused on legalities and issues for farmers.

"We were looking at it as a business that would benefit more than our own farm. It was obvious that other industries could use it, but you need to prove the model," Scott says. "We're still doing that."



The emerging UAV industry in Canada is carefully regulated by Transport Canada (tc.gc.ca). Units are sized by weight classes. Operators are licensed for the class of UAV they handle. They need to complete a training program. Very thorough restrictions apply to where and when a UAV may be flown.

Achieving their milestones

In early 2015, Scott and Curtis reached a milestone in the UAV project. Transport Canada approved licenses to operate in British Columbia, the Prairies, Ontario and the Territories. They also have applications underway for licenses to operate in Quebec and the Atlantic provinces.

As well, the brothers formed a UAV service company, Green Aero Tech (GreenAeroTech.com). They acquired distribution rights for Precision Hawk in

Young Farmer



"We were looking at it as a business that would benefit more than our own farm. It was obvious that other industries could use it." Western Canada and retail licences for the DJI line of rotor-based UAVs and the multi-rotor Draganflyer from Saskatchewan.

Through Precision Hawk, Green Aero can process data from a UAV sensor in minutes rather than hours or days, and for as little as 10 cents an acre.

Their first customers included two world-class seed companies, a leading machinery manufacturer, a fastgrowing agronomic consulting company, individual agronomists and a film company.

The plan is to devote the 2015 growing season to retail sales, service to new clients and continuing research on their own land.

"Scott is fully licensed for all of Canada west of Quebec right now," Curtis says. "Very few people are licensed that way, as an administrator. It's like having an airline. Under his licence, he has people doing film work in Vancouver, real estate work in Ontario and agriculture research on the Prairies."

While the full potential of UAV technology is yet to be realized, the Hiebert brothers are on the soaring edge, both within and outside the agriculture sector.

THE HIEBERTS' TOP 6 LESSONS FROM THE YEAR OF LEARNING

1. Data processing can be either cumbersome or fast-tracked.

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 Light quality will affect data quality.

3. A growing range of sensors, for different purposes, is available to collect data.

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4. Sensors can be customdeveloped for a purpose, like calculating the blooming stage in canola or identifying specific disease symptoms.

5. For drainage purposes, elevation mapping by UAV can outclass RTK (high-precision GPS) accuracy on machinery.

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6. Advanced mapping and sensor tuning can explain yield variability mysteries.

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Game Changers

Sorting grain by chemical composition

BY KEVIN HURSH

Grain cleaning has traditionally been based on differences in size, shape and density, but the new frontier is near infrared transmittance, or NIT.

Scalping sieves, sifting sieves, air aspiration, spirals and indents are some of the tools used to separate grain from weed seeds and other undesirables in a typical seed-cleaning operation. Most commercial cleaning plants also have gravity tables that can sort seeds according to their density, and that's helpful in many instances.

Some plants have colour sorters, a much newer technology that can separate seeds according to optical characteristics. For instance, frost-darkened kernels can be removed. The capability of colour sorters continues to improve.

NIT sorters work in much the same way as colour sorters, but analyze chemical composition by passing near-infrared light through the seed. The first application of the technology in Canada has been the removal of fusariumdamaged kernels.

Fusarium hit the 2014 crop hard in Western Canada. A particularly high percentage of winter wheat and durum was downgraded due to the disease, some so badly infected it was not even salvageable as livestock feed.

Other cleaning methods can remove some of the fusarium-damaged kernels, but not as thoroughly and completely as NIT. The University of Saskatchewan has been working with a machine called the BoMill, imported from Sweden. The Canadian International Grains Institute (CIGI), based in Winnipeg, has monitored the progress and decided to buy two machines to assess and demonstrate the capability of the technology.

Rex Newkirk, CIGI's vice-president of research and innovation, says a small machine will be based at the lab in Winnipeg, while a larger three-tonneper-hour unit will be available for installation at farms, seed cleaning plants and feed mills across Manitoba to demonstrate what it can do.

In the most extreme case, the BoMill has upgraded a grain sample from 26 per cent fusarium to just 0.8 per cent. Newkirk is also excited by other applications, including sorting for protein and upgrading durum through the selection of hard vitreous kernels. With proper calibration, it should be possible to sort seeds for sprouting and frost damage.

While current NIT units come with a hefty price tag and a relatively low capacity per hour, the economics are favourable when you can upgrade wheat from a sample that's not marketable to a product worth \$200 or \$300 a tonne.

As with optical sorters, NIT sorting technology will get better, faster and more economical. Plus, new applications are sure to be developed.



In the most extreme case, the BoMill has upgraded a grain sample from 26 per cent fusarium to just 0.8 per cent.



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Canada

Data integration could change the way you farm

BY KEVIN HURSH

Technology has changed how businesses operate, and it's had an increasingly profound impact on agriculture, but Lisa Prassack - innovation expert, data strategy consultant and president of Prassack Advisors - believes data integration is the next frontier. She sees many technology silos, where different formats and platforms limit how data can be shared and utilized, but she believes these limitations will be overcome.

Prassack experiences the problems first hand while helping major companies with their technology needs. "I get hired when things are hitting the fan," Prassack says. Through Trader Joe's, she was involved with suppliers to organic agriculture. She assisted Agrium with the retail acquisition of Viterra and has worked with Trimble, Dell, Genetech and many others.

First, collect data

There's no shortage of data that producers can collect, whether it's yield maps, soil test results or input costs. Soil sampling on a grid system provides additional information. Elevation maps can be added to the mix, and some producers are even experimenting with engine load maps that measure soil compaction.

One new source of data quickly becoming important is imagery from aerial field views. With infrared images, you can often identify problems you simply can't see from the ground.

Prassack sees similarities to some of the diagnostics we use all the time, like X-rays to see a broken arm. "We can't hear the plant screaming for help - that's why imagery is so important," she says.

LEADING EDGE PRODUCERS

Lisa Prassack is in contact with many producers using exciting new technology in their decision making process.

Ryan and Marissa Marshall of Milton, Ont., are early adopters of technology on their vegetable and grain operation. The GPS guidance systems on their machinery are now accurate within one to two centimetres, allowing the planter, sprayer and combine to track along consistent 30 foot passes.

For fertility management, a Trimble GreenSeeker varies nitrogen application rates according to the crop canopy. "On our most productive fields, we're producing 180 bushels an acre of corn on 0.4 pounds of nitrogen fertilizer input per bushel," Ryan Marshall says. "I think as we learn more, we'll produce even more corn with less fertilizer."

Marshall suggests producers streamline business with tools in "the cloud" so there is access to them at all times and at all locations.



"Clean acquisition of data is the first step, but can the data be organized in useful ways for analysis and decision making? That's the much bigger challenge."

At a field level, data needs to be available in layers. When information sources such as yield maps, infrared imagery, soil test results and topography are combined, variable rate decision-making becomes more viable.

Data integration

Beyond agronomic considerations, Prassack believes a unified view of all the farm's operations is essential, and that means getting a real-time view of assets – including inventory. Data entry isn't much fun, but data re-entry is often required because one program may not be integrated with another. Even with all the data in the right place and format, performing useful analysis can still be difficult and time consuming.

"Integrated data helps the farm by bringing together lenders, insurers, crop advisors and ag retailers," Prassack notes. Each of these service providers can benefit from having a holistic view of the farm operation they're serving. She notes there are many more agronomy platforms than accounting platforms.

Everyone is a stakeholder, whether a farm equipment manufacturer or an agronomic supply company and as a result, many alliances are being forged.

Potato producers Chris and Harold Perry of Coaldale, Alta., use variable-rate irrigation to precisely control the amount of water going onto each area of the field. Weekly UAV (drone) imagery of the crop clearly shows areas that could use more or less water.

The Perry brothers use a system that allows control of every sprinkler nozzle rather than a bank of sprinklers. That allows the highest level of control possible. While yield is important, so is quality.

"The goal is to create quality and uniformity throughout the field and to deliver the best quality potato into our customers' hands," Chris Perry says. The longer a potato can be stored, the more valuable it is. Potatoes produced under irrigation pivots employing variable-rate technology tend to be more suitable for long-term storage, and don't have to be shipped to a processor as quickly.





"We can't hear the plant screaming for help – that's why imagery is so important."

Producers are sometimes wary about giving up control of their data to agribusiness. One concern is privacy. Another is that companies will benefit from large sets of data, so growers want to be compensated.

Prassack appreciates grower concerns, and says the onus is on companies to be clear about what data they want and how it will be used. She says data isn't meant to be tracked to specific individuals, but when grouped by a crop zone, it can provide valuable insights. She believes it's important that growers are able to choose what data they share, and with whom.

The future

As traceability becomes more important, Prassack says, product tracking is taking on added complexity.

She believes more devices will operate autonomously in future, passing along valuable information to a central system. Weather and market information will be better integrated and alerts will be consolidated and prioritized.

Imagine you're seeding and the weather forecast begins calling for a much-needed rain. You adjust the fertilizer rate upwards to take advantage of this new information. In a perfect world, this adjustment made from the seat of your tractor would be automatically reflected in fertilizer acquisition requirements, cash flow projections, yield projections and your marketing plan.

"The real prize is integrating the whole system – a system of systems," Prassack says. "We're not there yet, but we're moving in the right direction."

R

Terry Aberhart, who runs a large grain and oilseeds operation in southeast Saskatchewan, is using highresolution aerial imaging to make variable-rate crop spraying decisions.

For instance, field areas with very poor crop caused by flooding issues will not receive any fungicide. Areas of canola fields with a thick crop canopy are more prone to sclerotinia and will receive a full rate. Multiple applications during the growing season increase the return on investment for the imagery and generation of the prescription.

"Without variable-rate and sectional control technology, you have to either spray the entire field and know you are wasting costly chemical in many areas, or not spray at all and run the risk of higher losses from disease in the good areas of the field," Aberhart says.

He notes that prescription maps need to be combined with field level inspections to make sure the correct prescriptions are being developed. For instance, a weed infestation may generate an image that appears to be a heavy crop canopy. As a result, it's always important to combine remote sensing data with field inspections.

At a Glance



of the land farmed by **Canadian producers** is **owned** by those who operate it.

Source: FCC Vision Panel survey, 2015 Help shape the future of Canadian ag. Visit **FCCVision.ca** to register.

Making **Crop Residue** Profitable

Natural fibres such as flax and hemp, stronger and stiffer than residues of other crops, can replace conventional fibreglass and be moulded into tractor hoods, vehicle fenders and bus doors.

The Composites Innovation Centre plans to eventually make technology readily available that will monitor and grade the properties of crops as they grow, so farmers can identify markets and other profitable opportunities for materials once considered only residue. They've already constructed a full-scale electric-vehicle body and several fender and tractor hood panels with composite materials.

Winnipeg-based Buhler Industries mounted composite parts on tractors and deployed them for in-field trials in Canada and the U.S.

Agriculture and Agri-Food Canada is supporting the Centre's research into composite-related technologies with a focus on commercialization of agricultural biomass for industry applications.

Source: Agriculture & Agri-Food Canada, January 2015



McDonald's[®] Canada sources **100% Canadian beef** for its hamburger patties from ranches primarily from Alberta and Saskatchewan, and nearly 100 ranchers have expressed interest in their verified beef pilot program.

Source: news.mcdonalds.ca



Canadian farmers are moving to the forefront of best management practices in fertilizer use, and the 4R Nutrient Stewardship program backs their actions with hard data.

The Canadian Fertilizer Institute has been working with government as well as farm and environmental groups since 2005 to promote adoption of the 4R program. The 4Rs imply there are four aspects to every fertilizer application, and it provides a simple framework to assess whether a given crop has access to the necessary nutrients. It asks: Was the right fertilizer source given to the crop at the right rate, right time and in the right place?

For more on the 4R program, visit **NutrientStewardship.com.**

Source: Canadian Fertilizer Institute and NutrientStewardship.com



I am a **steward of the land.** It's the base on which I've built **my lifestyle, my livelihood** and **my life.**

Photo: Tara Davidson Source: AgricultureMoreThanEver.ca



Think long term when upgrading grain storage

BY LORNE MCCLINTON

When delivery space is tight at the grain elevators, producers who can deliver grain immediately, no matter what the weather is doing, have a distinct advantage over those who can't. That's part of why grain, oilseed and cash crop producers across Canada are growing their storage capacity in centralized, all-weather locations.

Canadian grain farmers have always liked to store their production on the farm. Since grain prices are traditionally at the lowest point of their commodity cycle during harvest, being able to deliver later in the year often means better returns.

At one time, producers liked to have grain storage on every significant parcel of land, says Lyle Muyres, vicepresident of marketing at Corr Grain Systems in Regina. Today, 20,000-acre farms aren't uncommon on prairie farms. Farmers want to store all their grain in one location so they can more easily manage it. Many use grain bags to temporarily store grain in the field during the harvest rush and then move it to their central storage location, where it's simpler to keep a close eye on its condition.

"A lot of the reasons farmers are improving grain storage and handling systems relate to logistical and human resource efficiency," says Terry Betker with Backswath Management in Winnipeg. "Some farmers are running three or four combines and harvesting four or five thousand bushels an hour, so using big bins saves them a lot of time."

Lease versus buy

Betker says there are good economic reasons for producers to match their grain storage to the size of their combines, grain cart and trucks. Centralizing grain storage improves the logistics of trucks coming and going. It simplifies the operation, because you don't need to run to different yard sites when it's time to deliver.

Most producers installing new grain storage systems lease them. That's because leasing a bin system can have a large tax advantage over buying one, says Tere Stykalo, MNP's southern Manitoba ag leader based in Dauphin, Man.

"When a producer purchases a bin, they can only claim a capital cost allowance at a rate of 10 per cent per year on a declining basis. In the first year it's only half that rate, or five per cent." Stykalo says. "So, on a simple \$50,000 dollar bin purchase they're only able to depreciate \$2,500 the first year and \$5,000 a year after that. If they took a five-year lease on a \$50,000 bin, though, they could claim a \$10,000 a year lease deduction."

"These are very simple figures that I'm using as an example only," he explains. "There is a small buyout at the end, but there sometimes are major tax advantages to leasing versus buying."

Size needs to be determined by the variety of crops you are growing today and leave some flexibility for the future.



Have a master plan

According to Muyres, the first thing to consider is where you're going to put your new bins. Keep in mind things like elevation, proper drainage and, of course, future expansion. Just because an area might work with the trucks and handling equipment you're using today doesn't mean it will work with the bigger equipment you might use in the future.

Everyone has put grain storage in the wrong spot or in too low an area at some point, he says. "Get it up in an area where there isn't water pooling, not only where you put your bins but also where your equipment is going to be during haul-out."

Selecting the right sized bin can be tricky too, because it will vary from one operation to the next. He believes size needs to be determined by the variety of crops you are growing today and leave some flexibility for the future. Those who grow ten or twelve different crops choose to have more, smaller-capacity bins, while those who grow large volumes of just two or three crops tend to build big ones. "You want to be able to set up your auger or conveyor into a bin and not have to move it for two or three days," he says. "So whether it's 20-, 30- or even 50-thousand bushel bins, pick a size that minimizes moving equipment at harvest. Then on the draw side it will allow either you or custom haulers to draw grain out very efficiently."

Use available technology

As bins on farms get bigger, though, producers are increasing the risk of catastrophic financial loss from spoilage. That's why nearly all producers install monitoring systems, along with aeration and other systems, to manage the condition of their grain.

"It's important you buy the right aeration and monitoring technology for your new bins," Muyres cautions. "Don't pick a particular system just because your neighbour has it. Pick the one that will work best with the size of your system to condition your grain."

The technology is evolving quickly. With the newest systems, you can monitor your grain while you are away from the site. If the temperature in a bin starts to climb, the system will send an alarm to your smartphone and let you control the fans from your mobile device – even if you are out of the country.

Get expert help

"If you're thinking of building a new grain handling facility, I recommend you work with a grain management specialist," Muyres says. "You can do it on your own, but a specialist can help walk you through the numerous options out there.

"It's also important to make sure that whoever is installing your bins has the expertise you need," he adds. "Lots of great product gets set up by subpar installers. It's no different than if you build a house: the quality of the person who builds it is probably as important as the quality of the product you buy."

When you have the right storage capacity at your farm, you stand a much better chance of being the guy at the terminal who can make just-intime grain deliveries for the best return possible.



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Ask an Expert

Farm accounting continues to evolve

What are the biggest changes you've seen in farm accounting software and the use of that software?

Software programs like AgExpert Analyst have improved exponentially over the years. Functions such as GST and HST reporting are integrated. Inventory tracking is an essential feature. The program can handle payroll processing, and it's much easier to drill down to cost of production.

It's also great to see producers who are fully invested in the program and excited by new features. These are often features that have been suggested by customers themselves. For the younger generation of users, computer use isn't a barrier like it was with some of the users who converted from manual accounting. That's gratifying for trainers like me.

The new trend is mobile apps so that data can be entered on the go. This reduces the chance of lost or misplaced receipts and keeps everything up-to-date.

Are there any patterns as to how the farm accounting task is handled within family farms?

Keeping the books up-to-date is still a struggle on many farms. The farm office is usually in the home and people have many other tasks and numerous distractions, especially during busy times of the year.

But there's an increasing recognition of the importance of up-to-date financial records. They're critical to farm management. It isn't just to keep track of how much tax you have to pay. Organized records assist in prompt bill payment and accurate recording of all your business activities. That can assist in obtaining financing, minimize your accounting fees and make budgeting and cash flow planning much more accurate.

Having one person focused on the farm accounting function is usually helpful. One person responsible for making entries typically means better continuity. Dedicated office space within the home is important.

It's interesting to see how the job is transferred from one generation to the next. Sometimes this is a grudging transfer with tension and apprehension. Other times, the older generation is pleased to be passing along this critical aspect of the farm business.



Karen D. Wright, software expert and farmer, explains how farm accounting software is changing and evolving to keep up with the demands of modern farms, and suggests ways you can maximize your investment.

KAREN D. WRIGHT

In addition to being a partner in a cattle and grain operation near North Battleford, Sask., Karen D. Wright owns KDW Consulting Services Inc. and is a trainer for FCC Management Software. She has been involved with farm accounting software for the past 16 years. There are many factors in farming over which you have little or no control, but with good accounting you can at least be prepared.

LEARN MORE about managing your farm finances and field management at an FCC Management Software live demo near you. fcc.ca/DemoDays

Do many farms outsource their bookkeeping?

Yes, this happens on some farms and I do that for a number of clients. Some farms don't have anyone with the time or interest in accounting. Plus, farms have become larger and more complicated. If the job is outsourced, at least it's done and the work doesn't pile up.

However, the bookkeeper still needs the paper records to work from. There still needs to be a good flow of information. The days of shoebox accounting are all but over. Many accountants require records in a software program.

I encourage producers to do their own bookkeeping if possible. You can start with the basics and become more advanced as you grow with the functions of the accounting program. With AgExpert Analyst, training classes are offered throughout the year and one-on-one help is readily available.

If you don't understand some of the basics of accounting, it's more difficult to make sense of your financial statements. However, doing your own record-keeping puts you in the driver's seat.

Farms with good records and good analysis of their records have reduced stress and are better able to react to whatever happens with the markets and the weather. There are many factors in farming over which you have little or no control, but with good accounting you can at least be prepared.

What advice do you have regarding the selection of professional accountants?

With the farm bookkeeping function, analysis sometimes takes a backseat to data entry and the ongoing aspects of running a business. Payroll needs to be maintained, income tax instalments must be current and taxes must be filed on time. But there are many ways to use the records for analysis of a farm's financial strengths and weaknesses. A good accountant can be key in that regard.

There's a wide variation in what accountants charge and the services they actually provide. It's important to have a strong working relationship and if you're not getting valuable and timely advice, it may be time to move your business to another firm.

Of course, you'll need to do your homework and see what different firms provide and how their fees compare, but it's important to have a good relationship with an accountant who can provide good service and valuable advice.

Technology

Apple and Google become driving forces

BY PETER GREDIG

Not that long ago, the thought of hands-free tractor guidance seemed ridiculous. Now that it's mainstream, we take it for granted. It's pretty simple – software processes incoming GPS data and sends the appropriate signals to the power steering on your tractor. Game changed.

In a similar way, the automotive sector is about to undergo massive change due to increasingly powerful software. This 100-year-old industry is dominated by a handful of players who have competed for market share by offering incremental innovation and change with each new model year. The cars we drive today are not dramatically different from what we drove 10 years ago, with one exception: software.

Cars can sense traffic in blind spots, offer hands-free parallel parking, brake automatically to avoid collisions, have mobile Wi-Fi, use voice recognition. These software- and sensor-driven functionalities are now the differentiator between brands and models.

Two mega-players in global computing and communication technology, Apple and Google, have both made bold statements about their desire to be in the automotive sector, and this is where it gets disruptive. These companies are not part of the entrenched 100-year mindset, and they're not interested in how cars were built in the past. They are software powerhouses, and they live and breathe user experience. They see a marketplace ripe for a shakeup for both manufacturers and consumers.

Google is actively testing cars that drive themselves and it's only a matter of time before this is marketready. The bigger challenge is figuring out how insurance, law enforcement and road design will adapt to autonomous vehicles. It's a cultural and infrastructure speedbump more than a technological problem. Apple is investing significant resources to develop or source battery technology that will make the electric car a viable and practical option. Tesla has made great strides on this front with their high performance electric cars.

Maybe the biggest difference in vision is to challenge the ownership model that exists today. If a vehicle can drive itself and knows where we are, it can be summoned when and where it's needed rather than sitting idle in the driveway or parking lot for 90 per cent of the time.

There are a lot of skeptics who think these newbies, as rich as they are, are in way over their heads, but I think it will be fascinating to watch this unfold. The established manufacturers are definitely paying attention.

Farmers know that it wasn't the original equipment manufacturers (OEMs) who led the charge on hands-free in our tractors. It was aftermarket software companies. Fasten your seatbelt. It should be an interesting ride.





Safety on the Farm

Hand signals help make farms safe

BY MARK CARDWELL

There's no mistaking the meaning of an uplifted middle finger in Western culture. Glen Blahey hopes the same will be true one day for 11 standardized hand signals on farms across Canada.

"They're not yet being used universally," says Blahey, a veteran health and safety expert with the Winnipegbased Canadian Agricultural Safety Association (CASA). "But they are becoming increasingly common."

Derived from signals used in the construction and crane industries, the 11 hand signals were developed decades ago by the American Society of Agricultural Engineers to enhance both communication and safety on farms and ranches. Most of the signals are based on common-sense gestures regarding distance, direction and speed.

According to Blahey, hand signs are a vital tool in working environments like farms, where distance and noise can – and sometimes do – make verbal communication impossible.

"It's the same as with rude gestures," he says. "You want to make sure the meaning is clear to everyone involved."

That was hardly the case when Blahey started out as a farm-safety specialist with the Manitoba government in 1981. Since then, however, he's seen the use of standardized hand signals become a mainstay feature and a universal language across much of Canada's farming landscape.

"Whether you're working with machinery or livestock, hand signals save time and help avoid mistakes," Blahey explains.

Standardized hand signals, he adds, is also helping make agriculture safer for workers who change farms. Blahey credits their growing use to the efforts of both provincial and national farm groups and associations like CASA, who work to raise awareness of farm safety issues.

Several groups offer free posters and other printed materials, and some farm equipment manufacturers now include them in owner's manuals.

Blahey recommends putting up posters or printouts of hand signals in prominent places, where they will be seen daily by farm workers and visitors such as feed-truck drivers and chemical company representatives.

He also urges farmers to train and test their family members and farm workers to ensure they know and understand each of the signals.

"There can't be any ifs, ands or buts when it comes to using them," Blahey says. "Ambiguity or confusion around farm machinery can be deadly."



From FCC

Put loan insurance first in your conversation

Too often, the topic of insurance comes up after applying for a loan. At best, it's an afterthought. At worst, it can seem like an added expense, like buying an extended warranty. But truthfully, insurance is in the best interest of your family and business.

"Insurance is really about your relationships," says Stephen Benedict, Senior Relationship Manager with FCC in Stratford, Ont. "It's about protecting your business and your key people."

Get the right insurance for the right people

For many operations, there's a belief that only the spouse who does the majority of farm labour should be insured. But once you list indirect contributions made by the other spouse, like watching the kids, bookkeeping or picking up supplies, it becomes clear who else is important to the success of your operation.

When it comes to early death benefit and accidental dismemberment insurance claims, Ann Baldo, Relationship Manager from Essex, Ont., has had her fair share.

"It's probably one of the worst things I've had to deal with." Ann recalls working on a loan with three young brothers who initially declined loan insurance. "The father convinced them to add insurance. A year and a half later, one of the sons died in a car accident." Since the insurance was in place, the debt was paid and the family could focus on healing.



"If there's a loss, that could be the end for the operation," Ann says. "But if insurance is in place, that debt is erased. And the next generation can continue on with it and not feel the burden of the financial loss."

The dream of passing on the family farm is one many of us share. Insurance is one more way to help ensure the operation is still there for years to come.

It's not too late to protect your operation, even if it wasn't your first thought during the loan conversation. Call your FCC Relationship Manager or our Customer Service Centre (1-888-332-3301) to learn more.



FCC Drive Away Hunger

Fight hunger in our community

You're part of an industry that helps feed the world – here's your chance to reduce hunger here at home. Nearly 850,000 Canadians will need a food bank this month. Over a third will be children. Bring a food or cash donation to the FCC office nearest you, or donate some of the proceeds from your field, bin, livestock or greenhouse, before October 23. Special thanks to our platinum partners BDO Canada, TMF Foods, Défi Jeunesse Québec, Courchesne Larose, Chenail Fruits & Légumes, and our national partners Parrish & Heimbecker Limited, Windset Farms, Co-op, Solis Foods Corporation, AGT Foods and BroadGrain Commodities Inc. for their ongoing support and commitment.

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