



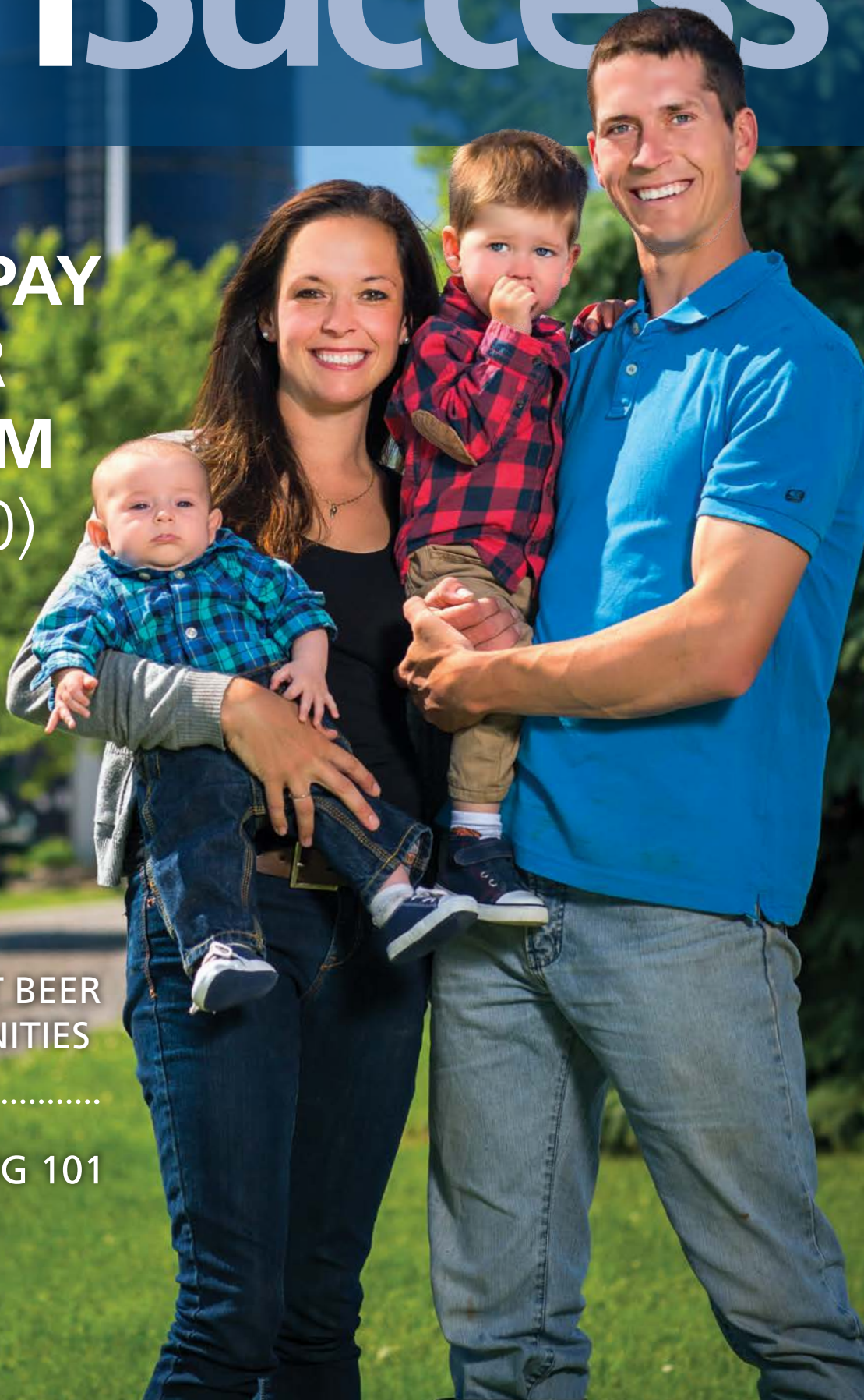
SEPTEMBER / OCTOBER 2016

AgriSuccess

**HOW TO PAY
OFF YOUR
FIRST FARM
(BY AGE 30)**

**THIRST FOR CRAFT BEER
BREWS OPPORTUNITIES**

.....
DECISION-MAKING 101





COVER STORY

YOUNG FARMER PROFILE

How to pay off your first farm (by age 30)

At 12, Jeff Vanhie already knew he wanted to farm. That early commitment has Jeff and his wife Sara well positioned to improve the efficiency of their Ontario dairy operation as they look for expansion opportunities.

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With pride in agriculture and a positive yet realistic outlook, AgriSuccess is dedicated to helping Canadian producers advance their management practices. Each edition aspires to present content that is:

- engaging
- motivational
- innovative
- actionable

Editor, Kevin Hursh

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Keep comparisons healthy

Farming is a business where it's hard to avoid comparing your farm to those around you and to those in your sector. You see what the neighbours are doing and they see your operation. When producers get together, we inevitably talk about the business.

As producers, we learn from each other both in casual conversations and at conferences. In fact, benchmarking your production and financial ratios against industry averages is encouraged as a way to pinpoint areas that need improvement.

But comparisons can go too far. You can get too wrapped up in what you have and what you don't have.

On one hand, there's envy. You wish you farmed as many acres or milked as many cows as that big operation down the road. Did you hear they just bought some additional land?

On the other hand, there's gloating, a feeling of superiority that you have a bigger farm and better equipment or more assets than someone else. How can they still be using that old pull-type sprayer?

It's quite common to see two successful farms side by side, with one 10 times larger

than the other. Hopefully, there's mutual respect rather than envy and gloating.

There are many reasons why some farms are big and others are relatively small. While hard work and astute business choices play a role, so do timing and luck, not to mention the efforts of previous generations.

Lifestyle choices also play a big role. Growth is a top priority for some, not so much for others. Some farms have a next generation interested in taking over. Others do not. Some farmers have off-farm businesses or careers, while others concentrate entirely on the farm.

Comparing your farm and farming practices against others is a great tool for improving your operation. There are many ways to measure success, and it goes beyond the size of your farm or your bank account.

Tweet using #AgriSuccess and let us know how you measure success.

We welcome all your feedback and story ideas. Email kevin@hursh.ca or tweet [@kevinhursh1](https://twitter.com/kevinhursh1). ■

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Is the next generation ready?

BY LORNE McCLINTON

How can you tell if the next generation is ready to take over the farm? Abe Toews, a succession expert with Beyond Wealth Consulting in Regina, Sask., says the best way is to test them.

“A good litmus test is to consider whether or not Mom and Dad can step away from the farm for three or four months without disrupting the operation,” Toews says. “If the kids can’t rise to the occasion, examine what needs to happen so they can.”

He recommends starting to develop management skills by involving them in meetings with your lender and accountant, and letting them participate in production planning. It’s critical they understand what the financial statements say. Next step is to test their leadership abilities by letting them take over a significant task that interests them.

“There are lots of activities on the farm you can delegate that will be a lot better in younger hands,” Toews says. “The younger generation is generally more adaptable to technology, for example. Farm Credit Canada has some good software available for farmers, so make operating it a project for them.”

Test their leadership abilities by letting them take over a significant task that interests them.

It’s important to let your children make some mistakes, Toews adds. They won’t always get everything right, but you shouldn’t necessarily jump in and try to fix it. As long as it’s not a catastrophic error, give them the opportunity to figure things out.

Letting go of control of the farm isn’t an easy decision for many farmers, says Diane McKenzie, a rancher and farm succession expert from Warner, Alta. Not only do

they fear they won’t have enough money for their retirement, but they’re also hesitant to give up control of their life’s work. That’s why most planners have a tale to tell about a 65-year-old farmer who hopes that this year his dad will finally let him see the books.

“The emotional aspects of succession planning seem more complicated for some people than others,” McKenzie says. “It’s a grieving process; they’re grieving the passage of time and their own mortality.”

McKenzie says that if your parents aren’t ready to let go, try to put yourself in their shoes. Develop a step-by-step proposal that addresses both their emotional and financial concerns.

Communication is key to succession success

Talking about uncomfortable issues like money, retirement and death is never easy. That’s why lack of communication between the two generations is the single biggest issue that Toews sees when helping a family with their succession plan.

“Mom and Dad grew up in an environment where talking about money wasn’t considered appropriate,” Toews says. “They never saw their parents’ estate plan until the day after their funeral. If you want to distill the secret to a smooth succession plan down to one thing, it would be up-front communications.”

Sometimes it’s easier to discuss issues by bringing in an independent third party, a succession planner, to help steer the process and act as a buffer, McKenzie says.

Toews suggests having everyone participate in regular family meetings. It’s an opportunity for Mom and Dad to outline what their expectations are for retirement, and non-farming children can share what their expectations are for an inheritance.

“The sooner you start doing this, the better,” Toews says. “Some of these planning things take time, so don’t hesitate to start involving your children – even if some of them are still in their teens. At that stage you have no



idea whether they'll be interested in taking over the operation or not. But showing them there is an opportunity for them if they are interested is critical for developing the entrepreneurial spirit they need to become a farmer."

Who will take over?

Farming in Canada is on the cusp of a massive generational shift. Data from the most recent Census of Agriculture won't be available for a while, but in 2011 the oldest operator on 55 per cent of Canadian farms was over 55.

Traditionally, the older generation has groomed the younger one to take over by working with them side by

side. That doesn't appear to be happening as much today; the last census showed that only one in seven operators now work on a multi-generational farm (defined as a farm with at least two operators with an age difference of twenty years or more).

"The reality is that we have thousands of business owners who want to leave their business in the next five to 10 years," Toews says. He worries there may not be enough young entrepreneurs ready to take over. "It's a huge issue and it hasn't had the attention it deserves."

It's also an opportunity for young people passionate about farming. ■



VIDEO:
Choosing
the Right
Successor, with
Dr. John Fast.
fcc.ca/Successor



How to pay off your first farm (by age 30)

BY LILIAN SCHAER



“I saved, got an education as quickly as I could, and made sure I graduated without student debt.”



Jeff Vanhie has known all his life he wanted to farm.

As one of five children on his family’s 30-cow dairy farm near Ailsa Craig northwest of London, Ont., he “farmed” the living room carpet as a toddler and by age 12, was saving money to buy his first farm. At 23, that dream became a reality and he’ll have that farm paid off when he marks his 30th birthday this September.

“I spent a lot of time renting farm land and building up a down payment, and I bought my first farm three years out of school with the goal of paying for it by the time I was 30,” says the 2006 graduate of the University of Guelph’s Ridgetown campus. “I bought a farm that was affordable and I was lucky that the right opportunity came my way when it did.”

The long-term objective, though, was dairy farming. Another big milestone came last fall when Jeff and his wife Sara began milking cows on the Kerwood-area farm where Sara grew up. To meet their long-term goals, says Jeff, it was best to buy only Sara’s father’s quota and rent the rest of the operation from him.

Today, they’re milking 90 cows and cash cropping 400 acres, but their future is set firmly on expansion. That’s costly – so they’re currently focused on making their existing operation as efficient as possible.

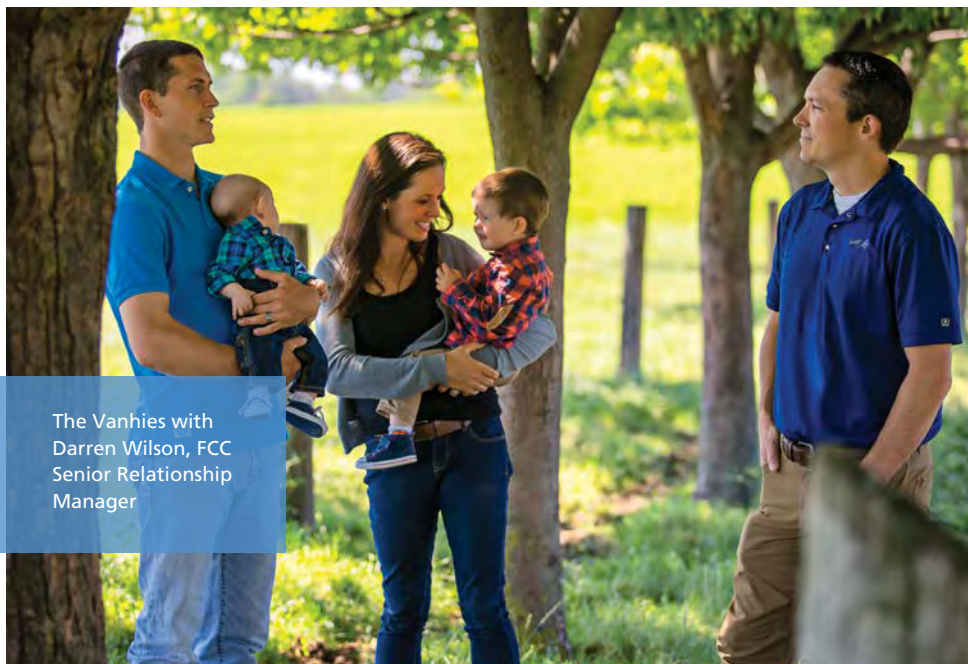
“We want to grow as fast as we can, but it’s also important to find ways to make what you have easier. You can also grow by being efficient,” explains Sara, a part-time teacher who also works on the farm. “Every step forward is expensive so you

have to make sure things are running well before you expand.”

That includes using technology and making barn improvements to reduce their labour needs and improve animal health and comfort.

Information is one of the cornerstones of their business success. Before taking the plunge into dairy farming, for example, Jeff had his FCC relationship manager provide him with industry data to help with gauging profitability, and take him to visit other successful farmers so he could learn from their operations.

YouTube is his go-to source for ongoing agricultural education and he’s also found courses like the Ontario government’s Growing Your Farm Profits workshop to be extremely helpful.



The Vanhies with
Darren Wilson, FCC
Senior Relationship
Manager

“Those programs are great because they let you work with people who have seen other farmers do what you’re trying to do,” Jeff says. “There is always financial risk when you’re trying something new, but this helps you improve your business with a bit of assistance, which minimizes that risk.”

Through Growing Forward 2, Jeff and Sara accessed funding for a succession planning professional; they also regularly work with an accountant for ongoing financial and business management.

Their decision-making is heavily rooted in gathering and analyzing data. Using sophisticated custom spreadsheets developed by Jeff and his software-engineer sister-in-law, they keep records current and track as much information as they can about all aspects of the farm.

“Collecting information is really important for us because numbers are what drive progress,” Jeff explains.

And although both Jeff and Sara are proficient computer users, having someone in the family with the expertise to develop customized tools is an

invaluable resource. All their spreadsheets are tailored to the farm and Jeff’s data interpretation preferences.

“This lets us use our money to our full advantage, and allows us to be competitive with our margins,” Sara adds.

Family is also a big contributor to their success in many other ways. “We couldn’t do it without the support of our families and employees,” Jeff says. “Having good people around us helps the farm progress.”

Their own family’s future is the ultimate motivator for Jeff and Sara, parents of two small boys – the goal of one day being able to farm with their kids or offering them an investment opportunity in the business.

“Like any career, you do it because you love it, and we want the opportunity for our kids to have the same kind of future,” Sara says. ■

Follow Lilian: [@foodandfarming](#)

TOP TIPS FOR YOUNG FARMERS



PLAN AHEAD

“When I was 12, I already knew buying a farm was my primary objective. So I saved, got an education as quickly as I could, and made sure I graduated without student debt,” says Jeff, who opted for a two-year diploma program.



SEEK ADVICE AND LEARN FROM MISTAKES

Jeff and Sara are not shy about getting input from other farmers and from industry professionals – like veterinarians, nutritionists, input suppliers, equipment manufacturers and others – about new tools and technologies to try on the farm. They also try hard to learn from things that don’t go so well, so mistakes aren’t repeated.

“We try to focus on self-education and do a lot of on-farm research in the barn and with our crops,” Jeff says. “If you don’t try anything new, how do you learn?”



KEEP GOING

Farming requires sacrifice and determination, Jeff and Sara both agree, but it’s important to keep the end goal in sight and not give up, even during trying moments.



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Good times increase the need for financing

BY KEVIN HURSH



The retiring generation is unlikely to pass the entire farm to their successors without keeping some equity for themselves.

There will be a great need to backfill equity on many Canadian farms in the years ahead.

At first blush this seems counterintuitive, and I'd never really thought about it until I saw a presentation on the topic by Gord Nystuen of Input Capital Corp. at the Canadian Global Grains Symposium in Winnipeg.

Input Capital, which bills itself as the world's first agricultural commodity streaming company, buys canola from Prairie farmers using multi-year contracts with the majority of the cash paid up front. In essence, they provide a form of financing for producers who may be short of equity for debt financing.

Nystuen believes a great deal of financing in various forms will increasingly be needed, not because of tough financial conditions, but because returns have been good for many producers.

Farmland values have increased dramatically in most regions of the country, pushing up the net worth of farms. And in the supply managed industries, quota values have not declined. With strong balance sheets on most farms and 75 per cent net equity being the norm, why would equity be a looming concern?

For farms being sold to third parties, purchase prices are typically the highest ever. For farms that operate with a significant portion of rented ground, paying rental rates also consumes capital.

In many cases, farms are passed from one generation to the next, but the retiring generation is unlikely to pass the entire farm to their successors without keeping some equity for themselves. After all, they need money for their retirement and it's money they've earned.


Dad and Mom may want to be paid in full for their equity by the next generation or they may settle for half to make the transfer more tenable. Perhaps because they have off-farm investments they can afford to be compensated for only 25 per cent of the farm's value.

Each farm and family situation is different, but a modest farm can easily have millions of dollars in equity. Even though the farm has been profitable and even though the transfer is intergenerational, there will be a big need for outside capital.

Profit contributes to land and quota values, and it's a much healthier situation than meagre or non-existent profitability causing stagnant or falling asset values. However, profitability doesn't reduce the need for financing. Instead, the need increases, even for many of the cases where the farm remains in the family.

Good times in agriculture do not decrease the need for outside capital and various financing options. In fact, the opposite is true. ■

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Thirst for craft beer brews opportunities

BY TAMARA LEIGH



Three flags fly proudly over Saanichton Farm – one for country, one for tractor and one for beer. For Bryce Rashleigh, they are visible reminders of what keeps the farm growing, and what they are growing for.



“The whole local food movement is huge on Vancouver Island,” he says. “People are more supportive of my farm and what I do when they see the connection to what they eat and drink.”

Rashleigh is one of four farmers on Vancouver Island growing barley on contract for Phillips Brewing and Malting. A leader in the craft brewing industry in British Columbia, the company built a malting plant in 2015, and is working with local farmers to increase barley acreage on the Island.

“It’s a growing part of our business,” says Rashleigh, who has more than doubled his barley acres since the malt plant was built. “It’s exciting to be part of starting something new for Vancouver Island. Phillips has put \$1 million into building

this malting plant, and it’s up to us farmers to help them out.”

Brewery with its own malting plant

Matt Phillips is something of a legend in craft brewing circles, and is not averse to taking risks. In 2001, the young brewer financed his start-up with credit card debt and started brewing beer in a windowless apartment in Victoria. Fifteen years later, Phillips Brewing and Malting is one of the largest craft brewers in B.C., and the only brewery in Canada with its own malting plant.

“When you’re brewing you are intimately aware of your raw ingredients,” Phillips says. “I love the idea of bringing local barley into our system. It’s a great way to give more

of a signature to our beer, and we're able to take more control over that part of the supply chain."

Vancouver Island growers are currently producing 40 per cent of the 1,200 tonnes of barley that the brewery uses each year; the rest is sourced from the B.C. Peace River region. The company is actively pursuing new growers on the Island and promoting barley as a rotational crop to get more acreage into production.

"It's not like there's a shortage of malt barley in Canada, but there's a shortage of Vancouver Island barley," Rashleigh says. "With the local market right now, they basically can use anything producers can grow. It doesn't necessarily pay a lot more, but it feels good to be part of the food and beverage industry."

One of the barriers for farmers has been the availability of equipment. High land values and smaller fields require Island growers to get resourceful to make it work.

"Fortunately I've been able to make it work with some landowners who are supportive, and by bringing in good used equipment from the Prairies," Rashleigh says.

The simultaneous development of infrastructure for brewers and barley growers is creating a unique opportunity and market in the region.

More barley needed for craft beer

"There's going to be an increasing demand for barley again because craft beer uses so much more barley than big breweries," Phillips says. "We would love to be 100 per cent Island barley; hopefully it's just a matter of time before we get there."

The Canadian brewing industry sources 300,000 tonnes of malt barley from Western Canada each year. Up to 25 per cent of

domestic malt barley will be used by craft brewers, despite the fact they only produce six per cent of the total volume of beer.

According to Beer Canada, the national trade association for brewers, there are more than 500 brewing facilities across the country, double the number 10 years ago.

"The growth in craft beer has been phenomenal since I started Phillips Brewing, especially over the last five years," Phillips explains. "Craft brew is now 12 per cent of market in the U.S. That statistic is similar in Canada, and more than 20 per cent in B.C."



Hops needed too

The growth in craft brewing is not just fuelling demand for malt barley, but hops as well. Hops were originally added to beer as a stabilizer. Adding International Bittering Units (IBU), a measure of the iso-alpha acids, makes beer last longer.

Over the past 20 years, craft brewers have come to demand more from their hops. Far more than a stabilizer, they are using hops to add bitterness, body and aroma to the beer, fuelling an explosion in hop varieties: from fewer than 50 to over 200 in only two decades. Many of the varieties are proprietary and grown under license.

The simultaneous development of infrastructure for brewers and barley growers is creating a unique opportunity and market in the region.

Joey Bedard is the founding partner in Hops Canada in Kamloops, B.C. The company started importing and selling hops in 2014, and has expanded through a partnership with the Kamloops Indian Band to become the biggest hop farm in Canada.

"The Kamloops Indian Band put up most of the capital and land, and we put up the business, contracts and distribution network," Bedard says. "We are now a year into the partnership and have 240 acres of hops in the ground."

At \$15,000 per acre in set-up costs, starting a hops farm of this size is a bold undertaking, particularly since it takes up to four years for plants to achieve full production and hop trends are fickle.

"Hop trends change all the time as you get better varieties to work with. We have to decide today what we think people are going to want four years out," Bedard says. "We sell on five-year contracts, and we only put in the ground what we've already sold."

Once the plants hit full production, they expect to produce 350,000 to 400,000 pounds of hops per year. Hops Canada currently sells to 170 breweries across Canada and the U.S., as well as India, South Africa, Chile, Columbia, Spain, Poland and Europe.

"We don't sell any hops to big-five brewers right now – 90 per cent of clients are small



breweries that brew under 150,000 litres per year. That's our sweet spot," says Bedard, adding that their customer base ranges from home brewers to super-wholesale.

While the growth in craft brewing has pushed up the demand and prices for hops, Bedard remains cautious about rapid growth in hops production.

"There's an illusion that there's a hops shortage right now," Bedard says. "In Canada, we have six to 10 new breweries opening per month. It takes two months to open a brewery, but four years to get hops to grow. Once the beer industry stabilizes, the hop world will catch up and tighten up quickly."

Hops Canada is focusing on opportunities in the international market for the next phase of expansion. They've signed an agreement with Thompson Rivers University to manage quality testing for export to the European Union, where demand is growing for North American-style hops.

"I feel like this industry has the potential to become much bigger than craft beer," Bedard says. "We're hoping to get another \$5 million in contracts and then we'll put in another field." ■

Follow Tamara: @Shiny_Bird

LOCAL BREWING REDEFINED

Consumers will pay a premium for beers made with local ingredients, and brewers and farmers are both finding ways of meeting that market.



MACKINNON BROTHERS BREWING CO.

At MacKinnon Brothers Brewing Co. in Kingston, Ont., the brewery builds on over 200 years of family farm history. They renovated century-old barns to house the equipment, and have planted hops and barley to use in their brews.

One of the challenges to using their own barley was finding someone to malt their grain at a small scale. Enter Barn Owl Malting, a new micro-malting business just outside Belleville that specializes in Ontario malt barley for craft brewing. MacKinnon Brothers are working with Barn Owl to refine their quality and test different varieties. They're also using their farming expertise, growing certified seed, to seize another opportunity.

"There's a lot of interest in growing malt around here," says Ivan MacKinnon, who co-owns the brewery with his brother Daniel and two other partners. "We're bringing high-pedigree seed, and hope to supply certified seed to other farmers in the area who want to grow malt barley as well."



TOOL SHED BREWING

The creators of Tool Shed Brewing in Calgary, Alta., are vocal champions of Alberta barley growers, and they're going to new lengths to source local ingredients, including wild yeast.

"We used the lab at Olds College to isolate every single strain of yeast we collected, and cultured it up. In spring 2017, we'll be offering 100 per cent Alberta beer – yeast, barley and water."



FARMERY ESTATE BREWING

It has taken four years for Lawrence and Chris Warwaruk of Farmery Estate Brewing to fully realize their vision for an estate brewery near Winnipeg, Man. They have been co-brewing using their own barley with Ontario's Muskoka Brewing while they built up the infrastructure to do it themselves.

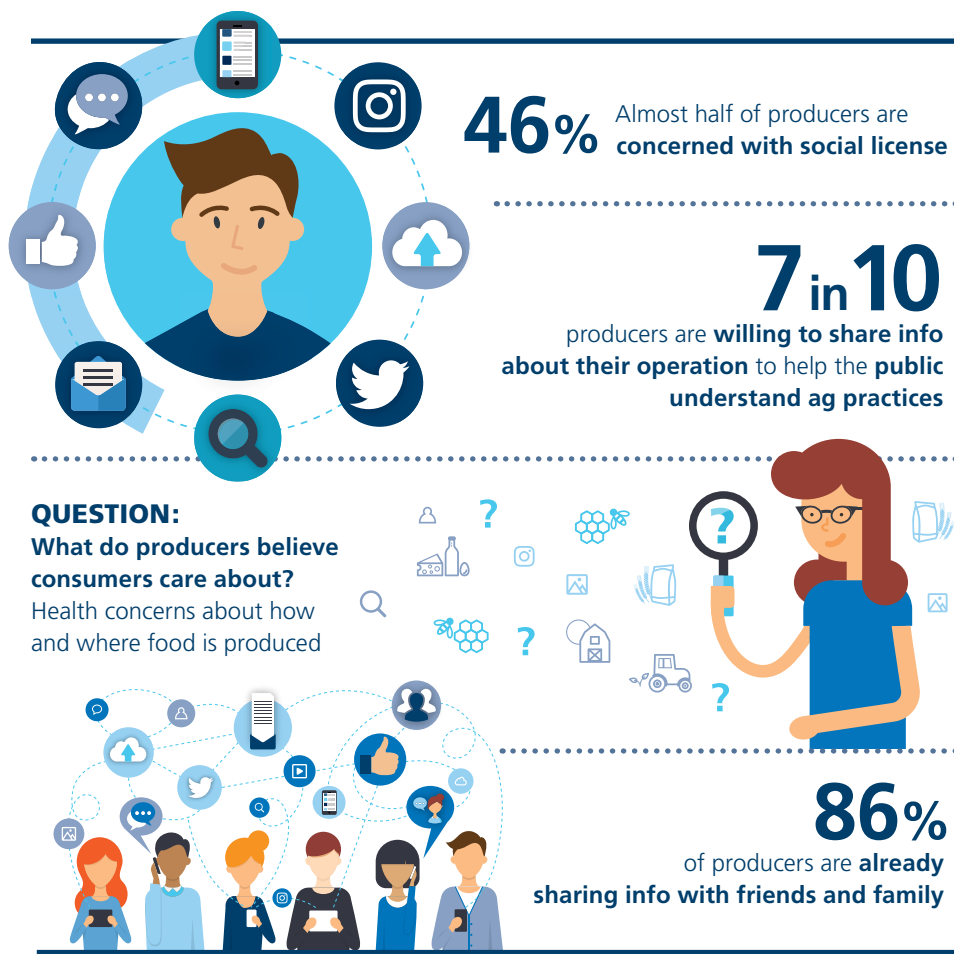
"It all started with a very passionate intention to go back to our roots and make farming make sense again," says Lawrence Warwaruk, who leads the farming operations. "If you had a winery you'd grow your grapes and call it an estate winery, so we decided to start an estate brewery."

The brothers grow 300 acres of malt barley, and have set up a 20-acre hops yard to supply their own brewery and sell to other craft brewers in the region. Their brewing equipment was installed in May.

FCC Vision Panel results

Social license in ag

Social license in agriculture: to farm in a way that garners acceptance and support from consumers and society as a whole



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WHAT MATTERS TO CONSUMERS?

A 2,500-person food integrity survey on public trust and our food system shows the top two overall life concerns among Canadian consumers relate to food and food production.

69%
Rising cost of food

66%
Keeping healthy food affordable

58%
Rising healthcare costs

57%
Rising energy costs

FARMING KNOWLEDGE

When the same survey respondents were asked to self-assess their knowledge of farming practices, 58% said they knew a little or a lot. But assessed by an outside source, 93% actually knew very little about basic facts – like that a cow had to first have a calf to produce milk.

Source: Canadian Centre for Food Integrity:
farmfoodcare.org/canada
canadian-centre-for-food-integrity

“Despite all our accomplishments ... man owes his very existence to a six-inch layer of topsoil – and the fact that it rains.”

- Anonymous, in *The Cockle Bur*, sometime between 1930 and 1968

Decision-making 101

BY KIERAN BRETT

Everyone has their own way of making decisions. Some people are disciplined, systematic analysts. Others listen to their gut. Many, if not most, combine both approaches to one degree or another.

Are there decision-making best practices that farmers can adapt to their own situations? Here are the views of a farmer, a consultant who advises farmers, and a business professor who also happens to be a farmer.

One farmer's way

When you consider the scale of Jeff Carlson's farming and business operations, it seems clear that many sound decisions have been made over the years.

Carlson and his family crop 19,000 acres in the Trochu area of central Alberta as well as in Saskatchewan. The operation includes an extensive cattle operation, spanning cow-calf, backgrounding and feedlot. The family also operates a group of three fertilizer and chemical dealerships.

Carlson is the first to admit he came into farming with a foundation about as strong as you can get.

"I'm the fourth generation on our farm," he says. "We've been here 120 years, so I've definitely seen the benefit of long-term thinking, even thinking that looks beyond one or two generations."

To this strong farming and land-owning heritage, Carlson brings a systematic approach to making decisions. It works for his day-to-day agronomic choices, but the same process largely applies when he looks years if not decades down the road.

SET A TIMELINE. If a decision needs to be made, such as on a prospective land

purchase, Carlson believes it's important to establish a deadline. "Otherwise, you can get caught up in a kind of analysis paralysis," he says, "where you just keep looking at the same data over and over again but nothing happens."

ASK FOR INPUT. Carlson seeks advice from his lawyer and accountant, as well as friends and current and former business partners. "Your accountant and lawyer are trained to be cautious," says Carlson, a lawyer himself. "That is valuable, but if you were too cautious, you would never end up doing anything."

DO RESEARCH INTO THE BUSINESS

ENVIRONMENT. Carlson reads extensively among agriculture and business-related media. He also attends industry conferences and trade shows and is open to ideas from consultants he works with. This input reflects the climate in which Carlson's decision will be made.

CONSIDER THE DIMENSIONS OF

THE DECISION. With 19,000 acres under his belt, Carlson is no stranger to land purchase. As an example of his decision-making method, he observes that a prospective land purchase would have at least three aspects that need to be considered carefully and in detail. One is financial, and whether the cost of the land would fit with his financial plan.

The second is about productive farming, whether the land is worth farming. Finally, there's a personal dimension where he considers how the land will fit within his family's long-term future.

SEEK AGREEMENT WITHIN THE FAMILY.

Of course, Carlson must bring more to bear on a decision than his own analysis. He's a family farmer, after all, in a family that's been farming in Alberta since the late 19th century.

In Carlson's view, your spouse needs to be in agreement with all major decisions. Of course, if you farm with other family members actively, then these people need to be consulted and listened to. He believes it's important to engage all stakeholders to have buy-in. In the end, however, the decision is your own.

Over the years, Carlson has found that one of his family's key strengths is the way they come together around big-ticket decision-making. "Sometimes we can disagree," he says, "but generally we are able to take a formalized business approach, and try to check the emotion at the door."

RESPECT YOUR GUT. Carlson's decision-making process is systematic, but that doesn't mean it's approached with a cold, robotic mentality. Subjective factors are also considered. If your intuition clashes

"A strategic decision really means a big decision that has long-term consequences and is difficult to change once you make it."

with the data, that doesn't mean your intuition is wrong.

"There have been lots of times I have stepped out and made a decision even though not all the information I needed was available," Carlson says. "There are definitely times where the family or the partners need to just hold hands and jump, as long as you're all doing it together."

A consultant's shorthand for land-buying decisions

The phone rings. It's your neighbour down the road, calling with some news you've been looking forward to hearing. They've decided to sell some land, right next to yours.

Do you buy the land? According to Rob Saik, Red Deer, Alta.-based founder of agronomic consulting firm Agri-Trend, this decision could be a milestone in the farmer's career and no two producers will tackle it in exactly the same way. He's often seen the process first-hand.

"Agri-Trend puts together peer groups of farmers," Saik says. "Most fall into one of two positions: those interested in expanding their land base and those interested in getting more from the land they have now."

As Saik has advised these growers and observed their thought processes, he's come up with a two-point method to inform a land purchase decision.

First, identify where agriculture is in its economic cycle. Second, identify where you are in your agronomic cycle. Saik believes the economic cycle is in a less robust phase than a few years ago.

"When farmers are in rapid expansion mode and crops are making money, it's hard not to think about buying land," he says. "It's tougher now. I see more guys interested in mitigating risk and getting more agronomically from the land they have. It's important to know whether you're in an expansion stage in your cycle, or an agronomic stage, because you probably can't do both at the same time."

To Saik, however, because of the unique nature of farmland as an investment, a productive asset and an emotional touchstone, there is one decision that a farmer can often regret.

"In the long run," he says, "I think a farmer is more likely to regret the land purchase they could have made but didn't; the land that got away from them. That can stay with you for a while."

Strategic decision-making checklist, MBA style

Do you find the s-word intimidating? Take heart. According to University of Toronto business professor Glen Whyte, strategy is just a high-minded word for something simple.

"A strategic decision really means a big decision that has long-term consequences and is difficult to change once you make it," says Whyte, whose family farms near Peterborough, Ont.

If you were an MBA student in Whyte's class, you'd spend months and years sweating over strategic decision-making. For his fellow Canadian farmers, he breaks it down to five essential questions you can ask yourself, reflecting what he calls integrated problem-solving.

GLEN WHYTE'S CHECKLIST

✓ WHAT GOALS ARE YOU TRYING TO ACHIEVE? Assess how the decision fits into your overall business plan and whether there are other options that could also help you reach your goals.

✓ IS YOUR ANALYSIS SOUND? "It can be human nature to make a decision, then go back and find a rationale to justify it," says Whyte. "Make sure the reasoning takes place first."

✓ HOW DOES THE DECISION AFFECT THE LEVEL OF BUSINESS RISK? "There may be ways to mitigate those risks," he says. "But you might want to accept a higher level of risk, not less, as long as you are compensated for that risk with sufficient upside."

✓ IF IT FAILS, WHY DID IT FAIL? Whyte recommends that, before pulling the decision-making trigger, you perform a "pre-mortem." "This is an act of imagination or a thought experiment," he says. "Imagine that it's a year later, and the decision turned out to be a disaster. Try to come up with reasons why the decision could have turned out poorly." This exercise ensures you identify the risks in the decision before you make it, and could unearth risks you hadn't fully considered.

✓ IF IT FAILS, WHAT'S NEXT? "Our typical response to failure isn't to take another course of action," Whyte says. "More often, it's to double-down and make an escalating commitment to a failing strategy." Having a Plan B in place, and a defined time for when that Plan B kicks in, will help manage the impact of a decision going sideways. ■

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How to be an advocate – and do it well

Can an individual farmer actually make a difference in how the general public perceives agriculture?

It can seem an overwhelming task to counter all the misinformation about agriculture, particularly on social media. Those spreading misinformation have had a lot of practice and they have a head start, but this is a marathon, not a sprint. When producers start sharing their stories, it may not have an immediate impact, but over time it will make a difference.

You may feel you're "preaching to the choir" because your followers are all like-minded, but you can go beyond this and influence people who aren't directly involved in agriculture. You can also do this by talking to friends and family about farming. It doesn't have to be on social media.

What advice do you have for using social media?

Be conscious of the audience you want to reach and remember these are public forums. Use another method for chatting about sensitive issues. There are comments that don't belong in public. As farmers, we enjoy a great deal of public trust and we need to build on that. This takes time and persistence. Plus, we need to listen. There's a reason we have two ears and one mouth. Communication isn't a one-way street.

Too often, it seems we're telling people what they should think. People want to know more about where their food comes from, and then they want to decide for themselves. Help them make that decision.

Truth will eventually trump fear, but facts aren't as convincing as relationships. Studies show sharing content that shows our values is far more important than sharing facts or demonstrating technical skills and expertise. We should share both the positive and negatives of agriculture. This creates interest. It's also more human. Stories help people understand.

How powerful is social media?

The backlash to Earls Restaurant when they decided to serve non-Canadian beef is an example of the power. Earls came out and admitted they didn't talk to farmers. Farmers who spoke up made a difference. Earls said it was a mistake to move away



Jennifer Christie recommends you join the positive conversation about agriculture.

JENNIFER CHRISTIE

Jennifer Christie is dealer development manager with John Deere Canada based in Kitchener, Ont. As comfortable on the seat of a tractor as she is in a boardroom, Jen splits her time between her family's sixth-generation dairy and grain farm in Bruce County and developing marketing strategy with John Deere dealers across Canada. She is a passionate "advocate" on social media and beyond.

 @SavvyFarmGirl



As farmers, we enjoy a great deal of public trust and we need to build on that. This takes time and persistence.

from Canadian beef and they committed to sourcing as much as possible from Canada.

As a manager with John Deere, you must have some views on the strength and importance of a brand.

The power of the John Deere brand is illustrated by how many people want John Deere hats even though they aren't farmers. However, it has taken over a hundred years to build this brand and it comes down to employees and how they act. It's also important to note that a great deal of time and effort goes into protecting a brand once established.












Remember, everyone has a personal brand and that's why it's important to carefully consider each of your social media postings. ■



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JEN'S SOCIAL MEDIA BEST PRACTICES

-  **Think thrice**, post once
-  **Be aware** of current events
-  There is no **sarcasm font**
-  **Read links** before sharing them
-  Use a **picture of you** for your profile picture
-  **Fit your message** to the channel – 140 characters on Twitter is not enough to get into issues
-  **Speak** from experience and don't generalize
-  Search a **new hashtag** before using it
-  **Engage** with people – have a conversation!
-  If you can't say anything nice, **say nothing**
-  **Tidy things** up on a regular basis

Nanotechnology: engineering better building blocks for agriculture

BY PETER GREDIG

It's hard to find a simple definition for the science of nanotechnology. The key word is small. Super small. To get a handle on just how small, if we compare a nanometre to a metre, a nanometre would be a marble. A metre would be the size of the earth.

The power of this science is the ability to engineer items from the bottom up. Instead of building or using existing components or molecules to engineer products or devices, nanotechnology is used to create building materials at the molecular level with optimal features for the task at hand.

Existing examples include lighter, stronger tennis rackets and golf clubs, sunscreen lotions, stain-resistant clothes and carpet, and packaging to keep food fresh longer. There are hundreds of nanotech products we are using daily without knowing it.

There are big opportunities for nanotechnology in agriculture. Nanopesticides could be more environmentally benign and provide more effective and targeted control of weeds, diseases and insects. Nanofertilizers are being developed to minimize leaching, control the release of nutrients and improve the uptake of nutrients by plants. Nanoparticles could also be used to administer vaccines or animal health products more effectively with less potential for resistance.

Nanosensors work by detecting electrical changes in the sensor materials. There is ongoing research to create nanosensors to closely monitor plant health and growth. The information could be delivered wirelessly to smartphones to alert farmers if plants are under stress of any kind. Nanosensors can also be built to detect bacteria and viruses. This is already used in food-processing scenarios and could be applicable for livestock operations.

The potential for nanotech in agriculture is significant, but to date, commercially available products have been slow to develop. The problem is return on investment – the development costs are significant and the benefits can be difficult to measure.



There are hundreds of nanotech products we are using daily without knowing it.

The United States Department of Agriculture recently announced an investment of \$5 million to support nanotechnology research at 11 universities.

Auburn University proposes to improve pathogen monitoring throughout the food supply chain by creating a user-friendly system to detect multiple foodborne pathogens simultaneously, accurately, cost effectively and rapidly. Mississippi State University will research ways nanochitosan (a polymer used extensively in the medical field) can be used as a combined fire-retardant and antifungal wood treatment that is also environmentally safe. Experts at the University of Wisconsin will work to develop nanoparticle-based poultry vaccines to prevent emerging poultry infections.

While nanotechnology has been slow to emerge in mainstream agriculture, the research is under way and we will see nanotech products in the near future. ■

Follow Peter: @agwag

Barn fires are brutal affairs

BY MARK CARDWELL

Fire chief Bill Hunter has battled a lot of blazes in his career. But barn fires have made some of the greatest impressions.

“You hear the screams of the animals inside and see farmers reduced to tears right in front of you,” Hunter says. “It’s horrific, something you don’t forget.”

As fire chief in the rural Ontario township of Perth East, Hunter has many such memories. Farming is the number one industry in the region, which is located a half-hour drive west of Kitchener.

Fires on farms there caused \$21 million in damages between 2010 and 2014, accounting for 70 per cent of total losses from fire in the township over that five-year period.

But those figures don’t include the pain and suffering of animals and people.

One particularly violent blaze near Puslinch, a half-hour drive east of Kitchener, killed 40 race horses. That fire generated

national media coverage and calls from animal rights groups for increased protection for animals.

Federal politicians promised to address those concerns in the updates the government is doing on the National Farm Building Code, which outlines requirements for fire safety on Canadian farms.

Hunter would like to see some regulations added to the code, which hasn’t been updated since 1995. Those changes include the requirement for on-site water in barns, and fire separators to slow down the spread of fires.

“Barns built today are typically 100 feet wide and 200 or 300 feet long,” Hunter says. “They’re huge buildings that often house the entire inventory and livelihoods of farming families.”

Though safeguards and regulations help to both avoid and fight fires, Hunter cautions they only do so much. “You can put all the safeguards you want in place, but they’re no good if people don’t

take some precautions,” he says.

Farmers can consult his fire service’s barn fire safety program on the Farm Fire Safety page at PerthEast.ca.

Launched a year ago, the program contains a high-quality, heart-tugging video, three shorter public service announcements derived from it, brochures and even six-foot pop-up banners. The program and video have been requested by more than two dozen Ontario firefighting services.

He recommends farmers do “proper house cleaning” and routine maintenance of electrical boxes, lighting and wiring. He also sounds the alarm against refueling hot machinery indoors.

“Barns have a high fire load,” says Hunter, referring to the term for total fuel that a building’s contents and construction materials can contribute to a fire. “You have hay that is hopefully dry, grain dust, lots of hot equipment and electrical wiring around. What could go wrong?” ■



VIDEO:
Is Your Farm
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fcc.ca/GetInsured

8 KEY ELEMENTS OF A FARM FIRE SAFETY PLAN



Source: Perth East Fire Department

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