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AgriSuccess

*FAMILY FARMS
TRANSITION FOR A
POWERFUL FUTURE*





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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

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DEMYSTIFYING THE **TAX** IMPLICATIONS OF RETIREMENT

BY RICHARD KAMCHEN

Embarking on the new horizons of retirement can be an exciting prospect – but dealing with the tax implications is no simple task for farm business owners to take on.

All three traditional tax structures for farm businesses – sole proprietorship, partnership and corporation – present different implications for income tax, as well as social subsidies and programs like Old Age Security and the Guaranteed Income Supplement, says MNP agricultural services business advisor Kimberly Shipley.

With a proprietorship or partnership, income is claimed personally as earned, making it potentially more difficult to manage fluctuations within the subsidy limits compared to a corporate structure, Shipley says. But with a corporate structure, personal income is based on what you withdraw from the company. She cautions that when using a farming corporation, limit the non-farming assets retained by the corporation.

“Failing to do so can result in the corporation no longer being a qualified farm corporation, which puts at risk the ability to access the \$1 million capital gains tax-free exemption on qualifying farm property, or the tax-deferred intergenerational rollover,” she says.

Getting started

The first step farmers contemplating retirement should take is deciding on the annual after-tax income they need to support the lifestyle they want to maintain.

“Will you live in the same home? Drive the same truck? Do you plan to travel?” Shipley asks.

Working with professional advisors can assist in comparing the desired after-tax retirement income to the income and cash flow your farm can generate.

“This will help you determine if your timeline is realistic and rule out certain transition strategies that simply will not provide the income required for retirement,” Shipley says.

Individual answers

Retirement tax issues are complex with no single right answer.

“There are serious tax and legal issues to consider in any family farm transition, so it’s important to speak with professionals about the pros and cons of various possible transition strategies,” Shipley says.

She explains that some tax planning strategies require two or more years to put in place, and starting early provides the best chance of a smooth transition while paying the least amount of tax.

One of the key decisions to make is ensuring your tax structure aligns with your overall family and business goals.

“Your tax structure needs to be the result of your planning, not the driver of it,” Shipley says. “You can have the most ideal structure from a tax perspective, but if it doesn’t fit with the current needs and future goals of the family, it won’t be the best one.” ■

*FAMILY FARMS TRANSITION FOR A **POWERFUL FUTURE***

BY LILIAN SCHAER





It was more than a coming together of two families when Mélissa Bourdon and Andrew Vallance got married in 2015. Their union also started the process of bringing together two family-farm businesses.

“Our families always farmed across the road from each other, but there is five years’ difference between Andrew and I, so we never knew each other growing up,” Mélissa says. “One day, we were planting side-by-side and that’s how we met – and the rest is history.”

Both were very involved in their Maxville, Ont., family farms while growing up – Andrew in dairy and cash crops, Mélissa in poultry, cash crops and her family’s commercial feed mill. They also both studied agriculture and business after high school and couldn’t see themselves doing anything else.

And they’ve been on a rapid growth trajectory ever since.

Growth begets growth – and sustainability

The couple grows corn, beans and cereal crops and raise broilers in two new barns they built on Andrew’s family farm. They also completed a transition to take over Mélissa’s family operation, which is focused on egg and broiler production and cash crops.

As well, Mélissa and Andrew are involved in the daily operations of Bourdon Feed & Grain Inc., which her father Marc started in 1991. Mélissa serves as the general manager and Andrew as manager-operator.

Ambitious plans are in their future. They’re building another broiler barn and an additional layer barn this year to add another enriched system for egg production. A new solar project has begun in an effort to ultimately be self-sufficient and produce enough energy for their own needs, and more quota and land will be purchased as the opportunity arises.

“We’re always clearing land, doing land improvement projects and looking to expand our land base,” Andrew says. “All the crops we grow are used at the feed mill; we like to be as self-sufficient as possible.”

Mélissa handles all the administration, accounting and daily feed mill operations, and both she and Andrew work in the barns and the fields. Andrew also manages operations in all aspects of their businesses and heads up their team of just over 30 employees. Although they each have individual responsibilities, they make important decisions jointly with their parents.



Building on experience

Mélissa's father Marc is still actively involved in everyday operations, as well as serving as a board director with Egg Farmers of Ontario and Chicken Farmers of Ontario since 2016.

"Andrew and I, we absolutely love working together and we make a great team. We also work with my father and Andrew's father Jim every day. They are both our mentors in different decisions," Mélissa says. "From a very young age, our fathers were very encouraging in letting us do things on our own. It was very humbling for them to let us take the lead."

Essential to helping them launch their farming careers has been the ability to build on their parents' success and experience.

The Bourdon family farm started in 1961 when Mélissa's grandparents Marcel and Louise Bourdon, both from dairy farming families, started their own dairy farm and years later raised their first flock of birds. Their son Marc and his wife, Lucie, who also grew up on a dairy farm, took over in 1991.

The Vallance family started farming in 1879. Andrew's parents, James and Lee Anne, took over from his grandparents Wilfred and Donalda – and he and Mélissa are now the proud fourth generation of Vallances on the farm.

A formal process smooths transition

How the farms have evolved over the decades is a source of pride for Mélissa and Andrew, as is how they've been able to successfully navigate their farm business transitions. Their process was a formal one involving accountants and other advisors, and after a successful transition with the Vallances, they applied the same approach with Mélissa's family.

"Succession is a huge deal, and a lot of farm families have a hard time getting through it," Andrew says, adding it was helpful that both families were very flexible in their approach to transition. "Our lines of communication are good, and we're lucky to have that. In this industry, it's one of the hardest things for farm families to get through."

Government and community support underpin success

According to Mélissa and Andrew, another key element of their success has been the supply management system, Canada's national agricultural policy framework used to control the supply of dairy, poultry and eggs, and the stability it offers farm families. Without it, they believe their business would look much different today.



But it hasn't all been smooth sailing. In 2019, after less than three years in operation, one of their broiler barns burned down.

Luckily, the barn was empty at the time – the next flock of birds was due to go into the barn that day and was only 20 minutes away when the fire broke out. Mélissa and Andrew were fortunate to be able to place those birds in a neighbouring empty barn, so they didn't incur any production losses while they were rebuilding. And the barn's foundation had somewhat remained intact, so the rebuild was a much faster process than it would otherwise have been.

"It was pretty hard for us to see, but we had the builder out the next day to start getting us going again," Andrew says. "We're always very positive people and we always see there are opportunities even in difficult times, you just have to know where and how to look sometimes."

"We're always trying to be better at what we do and thinking ahead for the future – and we're extremely thankful that our children can grow up living this life," Mélissa adds. "Our priority is to keep producing a great and healthy product, be proud of what we do and show our children what we love every day." ■

Essential to helping them launch their farming careers has been the ability to build on their parents' success and experience.

Lessons from the Bourdon and Vallance family farm transition include:

- Tap into the expertise of seasoned farm executives while exploring and executing fresh directions with new talent.
- Consider how sustainable, forward-thinking and innovative additions (e.g. enriched and animal welfare-enhanced housing, wind and solar power, etc.) might factor into your growing business.
- Formalize the transition process with the help of experts to ease stress and uncertainty and move confidently into your next phase of business.

Bright minds at Ridgetown Campus, University of Guelph

BY OWEN ROBERTS



Ahmed Atteya

Program: Associate Diploma in Agriculture

Why did you choose this career path?

Since I was a child, I've had a passion for and keen interest in agriculture. Working in an agricultural-related field is not just a job – it is a profession of hope and love and a noble

message for all humans. Farmers make a positive impact on those around them and they are passionate about what they do. That guided my decision to change my career direction after spending several very successful years in a different business sector. At Ridgetown, I've learned the best agricultural practices and am learning how to join the agribusiness community to support farmers in accomplishing their mission.

Where do you see yourself in 5 to 10 years?

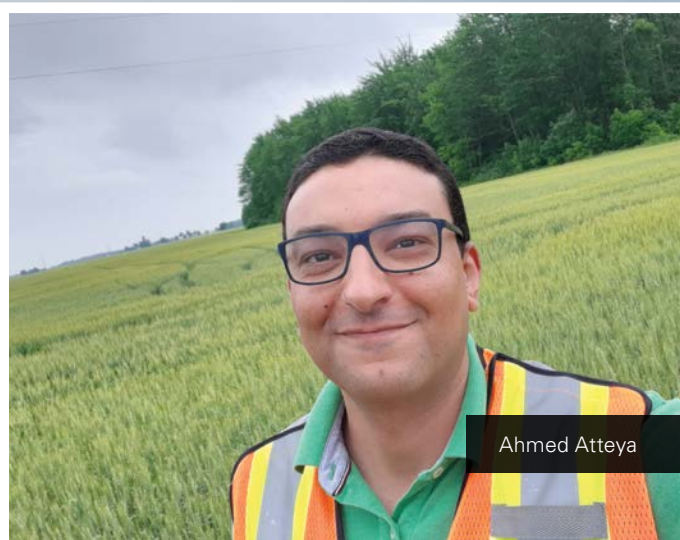
Like farmers, I am driven to be the best at what I do. Five years down the line, I want to be at a place where I can make a difference. My passion for agriculture will boost me in achieving my goals. I see myself developing my skills and growing my knowledge by learning from Canada's innovative leaders to become an agribusiness professional. My long-term goal is to be a leader in the industry and employ my skills and expertise to support and influence others and contribute to my community's improvement and the entire industry's growth.

What tips do you have for others?

Life taught me that dreams remain dreams until you take action. Always be patient and persistent in achieving your goals. Don't worry about failing; life is not so much about what you accomplish as what you overcome. Take time to know yourself to be wise about your goals, dreams, and standards to live your life with purpose and meaning. Learn how to listen, because you cannot learn anything when you are talking. Don't worry what other people think; believe in yourself. The way you see and treat yourself is what you become.

UNIVERSITY of GUELPH

- The University of Guelph, Ridgetown Campus, is located in the heart of southwestern Ontario
- Ridgetown's vision is to advance society through agri-food research and science-based learning; its mission is to be a leader in applied agriculture, animal science, and environmental research and in life-long learning initiatives that are practical and relevant to society



Ahmed Atteya



Suzanne VanderMeulen



Suzanne VanderMeulen

Program: Associate Diploma in Agriculture

Specialization: Dairy Herdperson Apprenticeship

Why did you choose this career path?

Agriculture has given me a dream, a purpose, goals for the

future and an identity. I enjoy being surrounded by a diverse industry and getting to know more producers and contributors. I love being in the barn, working irregular hours and being around livestock. I chose Ridgetown for its combination of practical and academic experiences, and to connect with faculty with whom I share interests. Ridgetown offered me opportunities with their unique herdperson apprenticeship program and I was able to do an artificial insemination course and trim hooves, along with many more hands-on experiences.

Where do you see yourself in 5 to 10 years?

I'll be milking cows, feeding calves, growing crops, and striving to be a contributing producer in the dairy industry. I'll never be done learning and gaining new experiences. Over the years I have done co-ops, worked for many different farmers, attended conferences and farm shows, worked in agriculture overseas, obtained an agriculture diploma and now am taking the dairy herdperson apprenticeship. I aim to continue learning and further build my skillsets and knowledge. I want to grow more into this industry, make connections and become a contributing producer.

What tips do you have for others?

Chase your dreams and find your passion! You have talents and skills, find them and use them! Don't be afraid to dream big and work hard. When you discover where your talents lie, use that to build confidence in yourself, let it fuel you towards success. There are lots of producers and agriculture sector contributors willing to help you along your journey. Don't be afraid to put yourself out there. If this is an industry you want to be more involved in, reach out, talk to people, and build connections. This industry is like a big family – we want to see you succeed! ■

- Founded as the Western Ontario Agricultural School in 1951 and later became Ridgetown College then a campus of the University of Guelph in 1997
- Enrollment: 450 to 550 full-time students
- Campus size: 450 acres, including research plots
- Teaching staff: Approximately 45 members, including faculty, college professors, lecturers and instructors

- Ridgetown offers two- and three-year associate diploma programs in agriculture, environmental management, equine care and management, horticulture, and veterinary technology
- Also offers a two-year dairy herdperson apprenticeship program and one-year certificate programs in performance horse handling and veterinary office administration



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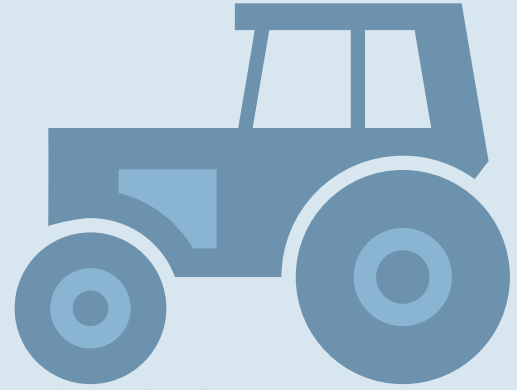
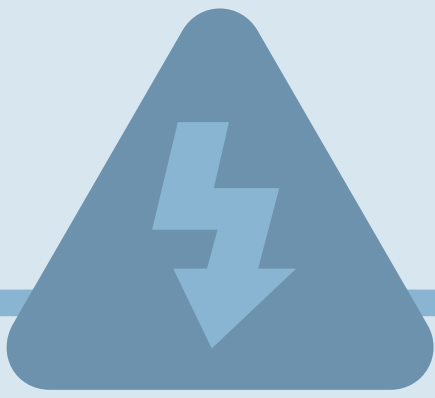


EP 08

"We're trying to show you this is our farm,
this is what we do and we're unique."

Emma Butler, Owner, J&E Meats
Ontario





ELECTRIC TRACTOR TECHNOLOGY IS MOVING FAST

BY PETER GREDIG

The biggest advantage of diesel-powered engines? They work. With 100 years of experience and development behind diesel power, it's a reliable and proven way to go. But there are a few reasons to at least consider alternatives. Some complicated technology is required to make new diesel engines generate the power we need and meet stringent emissions standards.

This includes special particulate exhaust filters, the injection of diesel exhaust fluid (DEF) into the exhaust flow to reduce nitrous oxide emissions, and other pollutant-reducing engine modifications. The more complicated these engines become, the harder they can be to maintain and fix, especially when software-driven.

Simpler, quieter and lighter

Electric motors are simple, have few moving parts and require little maintenance. They are also quiet and because there are no fumes, electric tractors would improve working conditions when people are in close proximity. Vineyards, orchards and inside barns are prime examples.

Although some companies are experimenting with electric tractors over 100 horsepower, the most likely entry point for electric power is in models used to perform tasks that don't require a lot of horsepower.

The development of electric tractors is moving quickly, both from traditional manufacturers like AGCO and John Deere, but also players who see an opportunity to introduce numerous innovations at the same time. A California-based company called Monarch Tractor plans to sell a fully electric, driver optional, smart tractor integrated on a single platform. The 40-horsepower

tractor takes four to five hours to charge and will be available in late 2021 for around \$64,000.

Many see farm equipment moving to a swarm model where numerous autonomous small-horsepower tractors or robots will replace larger, heavier, high-horsepower tractors. In this scenario, electric power makes much more sense with the potential for solar charging on the go. Electric drivetrains are more responsive, which improves precision autonomous operation. These smaller units will also cause less soil compaction.

*Electric motors are simple,
have few moving parts and
require little maintenance.*

It really comes down to battery technology, which has come a long way in recent years. The performance of cordless tools is a great example. For electric tractors to truly become mainstream the battery needs to be powerful enough to do the work, provide a reasonable work interval, charge quickly, and last long enough to keep costs in line with traditional options.

Skeptical? It took many years for electric automobile manufacturers to address things like range, re-charge time, reliability and cost. It was a slow process, but electric cars have moved past the curiosity stage and are starting to sell. With about 1.4 million electric vehicles sold in the U.S. in 2020, the trend line pegs sales at 6.9 million by 2025. ■

CAN A **CRISIS** BE **GOOD** FOR YOUR **BUSINESS**?

BY REBECCA HANNAM

Crisis is defined as a time of great disagreement, confusion or suffering. For farm business owners, it's often an incident or event that interrupts the normal flow of operations and puts the stability of the company at risk. It might be a chemical spill, a food-quality compromise, or an outbreak. But in the Chinese translation, crisis also means a turning point.

Jeff Chatterton, crisis communication consultant and president of Checkmate Public Affairs in Kitchener, Ont., takes this to mean that in every crisis, there is opportunity. It stems from the fact that people actively watch and listen when a business is experiencing challenging times. In other words, there's an engaged audience.

"If you handle it well, a crisis can do far more for your image, reputation and credibility than any amount of vanilla leadership training, sponsorship or advertising," he says.

Chatterton works with business leaders across many industries, instructing them how to prepare for and react to crises. It's not usually a case of if something bad happens, but when.

"Most of the crises we end up dealing with are not the ones everyone thinks of," he explains. "Where business owners can get into trouble is on something completely out of the blue that they had not previously thought about. If they had, they could have fixed it in advance."

Lessons to learn

Chatterton shares three crisis management tips that farm business leaders can learn from.

Know your audience

The phrase "crisis communications" can conjure up images of executives in the national media spotlight. But for many farm businesses, consumers may not represent the most important audience. It may be more important to target communications to employees, suppliers and other stakeholders, which doesn't lessen the significance of the crisis.

"Even if you're not in a customer-facing role, you're just as exposed and vulnerable to a catastrophic reputational crisis," Chatterton warns.

Accelerate the pace

Acting quickly and communicating effectively are essential. In the past, companies prepared for crises with expansive communication plans. Chatterton calls this an old-school approach no longer relevant.

Today, managing crisis is all about the speed of communication. Your team can quickly create messaging on the spot, and most producer organizations can provide advice. Another option is a membership-based program giving companies ongoing access to a professional response team, something Chatterton has developed as an alternative to a communications plan that may quickly become obsolete.

Evaluate your mindset

Chatterton says the ideal mindset for business owners in crisis is a mix of resiliency and optimism. Although crises can be stressful and overwhelming, it's important for leaders to adopt wellness practices to battle burnout. Engaging professionals and not attempting to manage a large crisis alone are also key. ■

EMOTIONAL INTELLIGENCE IS KEY TO STRONG LEADERSHIP

BY PETER GREDIG

What traits make super-achievers and business leaders stand out from the crowd? What do they have that average or even very good CEOs are lacking?

Intelligence? Time management and multi-tasking? Energy and passion? Persistence?

They almost certainly possess these qualities, but there's another trait that takes some leaders to a new level. It's called emotional intelligence and leaders of all descriptions can benefit enormously from greater attention to this.

We can't do much to change our IQ, but emotional intelligence, often called EQ, is something that leaders can work on and improve. Emotional intelligence is the ability to recognize emotions in yourself and others, understand the difference between various emotions, and use emotional cues to guide your thinking and behaviour. Many successful leaders are found to have a very high level of emotional intelligence. They know how to manage or adjust their own emotions to achieve their goals and they respond to emotions in others.

There are two ways that improving emotional intelligence benefits leaders and their teams.

Self-awareness

As a leader, your personality and disposition have a huge effect on your team. Being aware of your emotions and managing them creates a better work atmosphere. If you feel like you need to apologize to everyone on the team for your month-long crusty mood during a really challenging harvest, it's time to work on your emotional intelligence. Being angry, intimidating or unpredictable makes it difficult for staff to approach or interact effectively with their leader. Remember that as a leader you have a choice in how you react to any situation.

For some leaders, controlling their own emotions to foster a better work environment and culture comes naturally. For others it might be the biggest hurdle they face in becoming a more effective leader.

Better connections and interactions

We've probably all encountered intelligent people who have incredible vision and potential but just can't connect with other people. They thrive working on their own and yet struggle to make the leap to leadership and working with a team. The key word? Connect.

Leaders who recognize that everyone they interact with is on a different emotional spectrum have a huge advantage over those who rule by decree and treat everyone the same. Some people are stimulated and thrive under stress while others withdraw and become immobilized. Some welcome a good-spirited debate while others avoid conflict at any cost.

Treating everyone the same will never result in optimal team performance. ■

The 5 components of emotional intelligence

Daniel Goleman has written many books on the topic, including his bestseller *Emotional Intelligence: Why It Can Matter More Than IQ*. Goleman breaks emotional intelligence down into five major components:

1. Self-awareness
2. Self-regulation
3. Motivation
4. Empathy
5. Social skills

THE TRANSFORMATIVE POWER OF EMBRACING CHANGE

BY EMILY LEESON

In late spring, Nova Scotia's Annapolis Valley bursts into bloom. Apples have been the industry of the region for generations, but the vistas of the Valley are changing. In fact, across Canada the apple industry has been undergoing an evolution.

Orchards once dominated by McIntosh, Cortland and Spartan have given way to the new varieties: Ambrosia, Gala, and the new darling of the industry, Honeycrisp. The high-value cultivars have ushered in a new era. In recent years, the farm-gate value of apples in the Maritimes increased by over \$9 million – a significant boom. To maximize returns, producers are transforming their orchards and propelling their businesses into the future. Instead of getting stuck in the mud of the status quo, they've stepped up to the challenge of change.

"When I first started farming, we were dabbling with orchards that had 400 to 500 trees per acre," says Douglas Nichols of Apple Lane Farm in Morristown, N.S. In the 1980s those concentrations were considered high-density.

Today the bar is set much higher. "We're now approaching 900 to a thousand trees on an acre," Nichols explains. More trees mean that producers get into production faster – and those early apples start to pay off sooner.

Everything in the high-density orchard is innovative: cultivars are grafted onto dwarfing rootstock to keep the trees smaller and more manageable; GPS-directed planting ensures precise layouts ready for future automation; trellis systems maximize sun exposure and support the tree growth towards crop production rather than wood-thickening. Even patterns of labour shift as the streamlined trees make for new efficiencies.

It's an attractive proposition – and an expensive one.

"To put in one acre of high-density planting with trees, poles, wire and everything else that goes into it, you're looking at roughly \$35,000 to \$40,000 an acre," explains Pinder Dhaliwal, president of the B.C. Fruit Growers' Association based in the Okanagan Valley. "And then there is that three-year wait, so the opportunity is lost on whatever you already had."

A sizeable investment, a shift in practices and the potential risk of a new venture – it has all the makings of a stressful situation for producers used to carefully weighing the pros and cons of each decision. Yet about 90 per cent of B.C.'s crop is now grown in high-density plantings and most of Nova Scotia's new plantings are following suit.

By embracing change, these producers are building resiliency right into the fabric of their businesses.

NAVIGATING CHANGE FOR YOUR BUSINESS

Any prospective change to the status quo brings the potential for anxiety and resistance, but you can brace your business for the inevitable. Follow this advice from the orchard on three ways to mitigate the challenges of change.

Gather perspective

There's safety in numbers – and a sense of security in community. Seeking out the experience of peers is crucial when it comes to charting a course forward.

Working as a community is nothing new to orchardists – industry groups have long histories of sharing information on new threats and innovations. But what is new is the relatively recent expansion of those communities, partly due to the internet. “You can easily pull up a video of a high-density orchard – be it in B.C., Nova Scotia, Ontario, New York or Washington,” Dhaliwal says. “You can see ... they invested a certain amount of money, and they got it back in three years.”

Dhaliwal says that level of interaction with other producers helped build his confidence in his own choices: “I can dive off the high board now.”

Set the right pace

Determining the right pace of change is key. While interest rates and government programs play a significant role, there's no one-size-fits-all method to finding that sweet spot.

High-density orchards equal high early yields, a fast return on investment and a quick entry into a new market – but that doesn't mean a sudden and seismic shift is best for every

business. “We're a family farm; our income arises from what we produce, and so ours is a much more gradual transition,” Nichols explains. “That way we can continue to get a livelihood, not incur a lot of excessive debt, and still modernize the farm.”

Plan for uncertainty

From shifting markets to extreme weather to a global pandemic, life is rarely predictable. The best course seems to be to focus on the changes you know you need to make now and stay alert for your opportunity to make a much larger change.

“Labour is our number one cost and our number one problem to access,” Nichols says. “Anything we can do to be more efficient in that area will benefit the farm in the long term.” With high-density plantings, mechanized equipment makes the work more efficient, and orientation of the trees means platforms that place workers precisely where they're needed – a big advancement over apple ladders. In fact, many jobs have the potential to be less physically demanding, which is an important consideration for an aging workforce. High-density orchards layouts are perfect for robotics, even the sort not yet commonplace.

Apples may be a traditional industry, but there's nothing stagnant about the business. In Nova Scotia, plenty of young growers are entering the business and there's a lot of farm succession underway. With every step forward, producers are preparing for ever-changing circumstances.

At Apple Lane Farm, that next generation is already getting their feet wet. Working alongside Doug and his wife Marlene are their daughter and son-in-law. “We're encouraging them to look outside what we do now – the farm is evolving to work in our current environment,” Doug says. The best way to manage change is, after all, to never stop looking toward the future. ■

PREPARING FOR **SUCCESS**

Research shows that people who set targets and aim high perform better in negotiations.

- **Plan what to ask for**
- **Anticipate different scenarios**
- **Know what you want to achieve**

Source: Anna De Paoli



PLANNING FOR **TRANSITION**

Four things that can smooth your way to a successful family business transition



- **Willingness** to plan
- **Commitment** to learning
- **Patience** following the roadmap
- **Guidance** from transition experts

Source: Brent VanParys, BDO Business Transition Services (posted on LinkedIn and Twitter)

AGRICULTURE'S NEXT **GAME-CHANGER?**

Developments in three major areas will change agriculture by 2025

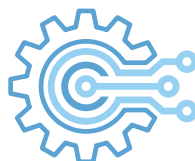


Sustainability

Environmental footprint, packaging, animal welfare

Source: Croplife.com

Technology



Artificial intelligence, sensors, machine learning, automation

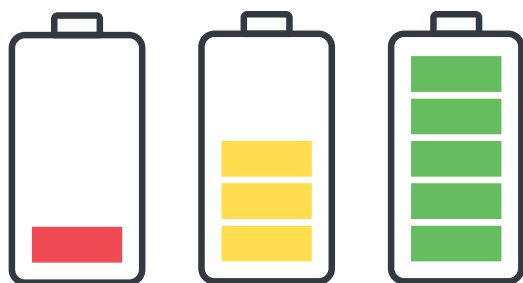
Genetics



Climate-resilient crops, functional product attributes, disease resistance

BEATING **BURNOUT** BLUES

Do you feel like you're running on an empty tank? Are you dissatisfied with your work or feel like you're getting less done in a day than you used to? **These are classic symptoms of burnout.**



Source: EffyDesk.ca/blogs/news

FIGHT-BACK STRATEGIES

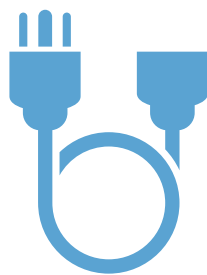
- **Re-energize** by taking a break with an activity you enjoy
- **Connect** with friends or family, even if it's a virtual visit or a text conversation
- Turn negative thoughts into a **challenge** for **yourself**:
I can't do this = how can I do this?

SIMPLE STEPS TO **REDUCE** FARM FIRE RISK



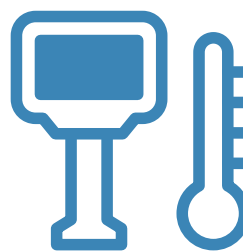
Keep it clean

Minimize clutter, sweep up dust and cobwebs.



Replace extension cords

Use undamaged, commercial-gauge cords.



Find hotspots

A thermal imaging camera can identify risk areas.



Avoid corrosion

Use waterproof electrical plugs and outlets.

Source: FarmFoodcareOn.org



ONE BAD APPLE CAN SPOIL THE JOINT VENTURE

THE FOLLOWING FICTIONAL CASE STUDY WAS CREATED BY MNP

Kevin and Craig were good neighbours and had helped each other through some challenges over the years. Both in their late 40s, they were not looking to expand their grain operations, but they also did not want to quit. They met regularly at the coffee shop in the off season and started talking about working together by sharing equipment, labour, management and other resources.

Craig loved equipment but only farmed about 2,500 acres, which made it hard to justify newer equipment. Kevin's grain operation was about 3,700 acres – so they would be farming 6,200 acres if they joined forces.

Craig was motivated by the opportunity to upgrade the equipment and spend less time fixing. Kevin was a keen grain marketer, an area that Craig admitted was a weakness for him. They had similar personalities and complimentary skills and were excited about achieving some benefits from economies of scale.

Big benefits to economies of scale

They were crunching numbers on the cost of upgrading the seeder and tractor, self-propelled sprayer and a combine when they were approached by another neighbour, Stewart. He had heard about their plan and wanted in. He was ten years younger and farming similar acres to Kevin, so between the three of them, they covered about 10,000 acres. This land base would enable late-model equipment that could be flipped regularly to stay current. Stewart was progressive and up to speed on precision farming practices and big on data-driven agronomy decisions. This appealed to Kevin and Craig.

Craig's accountant suggested that the best way for the arrangement to be structured was as a joint venture between the three parties. Joint ventures can be an excellent way for farmers to gain economies of scale without losing their independence. These agreements are usually short term (one to three years) and written specifically to assure Canada Revenue Agency that they're not partnerships.

Joint ventures are not legal entities. They're just agreements that state how independent parties will work together. A joint venture can't own anything. The agreement can be as simple as a list of rules governing how two or three farm kids might share the expenses, work and revenue from a sweet corn stand. It can also address a much more complex relationship like Kevin, Craig and Stewart were considering where three businesses would agree to operate collectively. Done properly, the joint venture document represents a legal binding agreement.

Start with equipment

Craig and Kevin liked the idea of taking a year to work through the details. Stewart wanted to push through the process and get the agreement written sooner so they could start looking for equipment for spring seeding which was five months away. They compromised by agreeing to initiate a joint venture agreement that only covered equipment ownership, sharing, maintenance and use. They would flesh out the all-encompassing joint venture agreement and have it in place for the following year.

They decided on a full shared-resources model. This meant acres would determine ownership percentage and level of



use, commitment to maintenance, expenses and repairs. In this case, Craig would be at 25 per cent and both Kevin and Stewart would be at 37.5 per cent.

Each of the farmers sold their existing equipment and they bought some high-capacity low-hour machines as per the joint venture agreement. Seeding went very smoothly. But some issues started to arise as they moved through the growing season.

Joint ventures can be an excellent way for farmers to gain economies of scale without losing their independence.

Craig owned a 25 per cent share in the equipment but felt he was doing most of the maintenance work. Kevin and Craig had similar opinions on keeping the equipment clean and greased and maintaining good maintenance records. Stewart never seemed to have time to invest in these tasks.

Kevin had electronic issues with the sprayer and called for mobile service to get up and running again. It was an expensive bill and Stewart was not happy. He claimed he could have fixed the problem and balked at paying his share. Then Kevin and Craig found out that Stewart had rented some additional land and committed to doing some custom harvesting without telling them. Not cool.

Sketchy moves jeopardize the arrangement

The extra rented land and custom work acres threw the resource-based share model out the window as Stewart was now covering 5,000 acres. When Craig and Kevin raised these issues, Stewart flatly refused to consider revising the joint venture agreement to reflect his expansion plans.

Craig and Kevin met to discuss options. They had written a sensible agreement for the equipment-sharing joint venture, but it did not provide legal direction should land-based percentages change. It also failed to address how they would move forward if one partner needed to be removed from the joint venture.

They had not anticipated Stewart's sketchy dealings and a conflicting approach to equipment management. They faced an expensive path to undo the arrangement. The sharing concept was sound and using a joint venture made good sense, but the devil is in the agreement details. And in the relationships.

Hindsight suggests they might have been better off to pool their existing equipment and adjust for percentage owned versus acres covered and sell whatever they didn't use. Then all future purchases could be made on a percentage basis and it would not matter if someone changed their land base as they would simply pick up a higher share of the costs. ■

MNP is a leading national accounting, tax and business consulting firm in Canada.
MNP.ca

IN DATA WE TRUST: ADVICE ON OPTIMIZING AND SHARING DIGITALLY DERIVED SOLUTIONS

BY TREVOR BACQUE

Digital solutions continue to drive decision-making in our world. Those who share their data with trusted third parties may see tremendous benefit for their farm's future. Here, three experts explain how sharing unique data sets can help business operations.

FINANCIAL DATA



Kim Inglis

*Financial advisor and portfolio manager
at Raymond James
Kelowna, B.C.*

Farmers are unique in that they are arguably my busiest customers. They are occupied quite literally around the clock managing their operations. For such busy people, finding time to provide the data needed for comprehensive financial planning has about as much allure as an appendectomy. I get it. The adage “short-term pain for long-term gain” could not be more apt than in farm finance.

With more producers over 70 than under 35 years of age, it's important that a farm's financial affairs are in order as one generation prepares to pass the torch to the successor.

When deciding who to let into their data circle, farm owners must consider who will take over the business. Gone are the days when it would automatically pass to the oldest son. Instead, many find their children have other aspirations, and they may need to look outside the family to find potential successors and integrate them as early as possible.

It naturally brings up questions of financial data. Planning tends to be quite complex, involving such factors as multifaceted estate issues, tax considerations, risk management and overall farm business transition. Due care in determining a strategy involves understanding the farm business as it is currently and as it is forecast to be at retirement.

A substantial amount of detail must be shared to set up current and future generations for success. It also means the advisor needs to liaise with the farm's team of professionals, such as lawyers and accountants. The more details that can be shared, the more in-depth and customized plans will result.

Data drives most of our decisions in this world. Investment portfolios require significant amounts of information, just as farm portfolios require trusted third parties to help producers achieve their goals and have a sustainable financial future.

HUMAN PERFORMANCE DATA



Michelle Painchaud

*President and CEO at Painchaud
Performance Group
Winnipeg, Man.*

One critical piece of data that is late to the farm party is that of human performance, traditionally filed under HR. To neglect human performance data is done at a farmer's peril. I've seen it play out for more than 20 years. What this information may tell is often the difference between a healthy, thriving operation and a negative, unmotivated workplace.

When farm operators recruit, they often do so with a brief social media post. Worse yet, they may find themselves in a pinch where their only criteria becomes two feet and a heartbeat. The cost of a bad hire is more than just lost money. Morale quickly deteriorates if issues are not dealt with. If left unchecked to fester, other employees may become disengaged and seek employment elsewhere. With a few proactive steps, managers can quickly hire and build a team of high-performing, engaged employees that positively impacts the bottom line.

A crucial touchstone for hiring managers is psychometric testing. It helps farmers – typically not versed in how to conduct a traditional HR style interview – better understand a candidate's potential strengths, understand how they thrive and what they need to succeed. Farmers may hire a likeable person, passing up more qualified applicants who may better fit into the operation's culture. As farms increase annual audits of workplace culture and employee engagement, data is a key driver to improving the overall business.

Understanding the environment an applicant will flourish in makes a world of difference. If you hire a grab-the-bull-by-the-horns employee, make sure there is always a bull handy to grab. Similarly, if you hire a worker bee, make sure the to-do list has no end in sight.

Remember, feedback is equally vital for managers and employees. Performance reviews are data, and critically important to growing and keeping high-calibre employees.

AGRONOMIC DATA



Dave Sullivan

*COO of Global Ag Risk Solutions
Regina, Sask.*

It has become increasingly clear that shared data has value and siloed data has almost zero worth. Farming is high stakes – you get one chance to grow your crop and it has largely been done on intuition with some fine-tuning based on last year's results. This was the model in Canada for more than 100 years.

Now, with agronomic data collection and aggregation, an area farmer could share information through a third party along with 100 nearby producers and get access to 100 years' worth of relevant benchmark data. If everyone shares for 10 years, there is suddenly 1,000 years of learning to draw upon.

Producers may view digital data as insecure or believe it may be used against them. It's a legitimate concern that a perceived loss of control or mistrust with data could occur. It's much more likely that the end result will be industry using your data in aggregate to generate new ideas and products based on your soil zone, geography, climate, macro- and micro-nutrient needs and more. If agriculture is to progress, data sharing will be required. There is simply no way around it. Whether it's finance, insurance, agronomy, or carbon credits, the sharing of some amount of data is nearing the non-negotiable stage. And currently, the payback from the data is that once shared, the farm gets access to a new opportunity or areas to improve.

Having a coffee with a neighbour and telling them what you did this year is essentially a slower version of uploading your data to the cloud. You have been sharing data your whole life; technologies of today can help interpret data to potentially give you a greater payback at the farm gate. Farmers who embrace the digitality of agriculture can already attest to its many benefits. ■

EARLY PROMISE OF **GENETIC EDITING** ABOUT TO BE REALIZED

BY PETER GREDIG

Amazing advances in technologies like robotics, artificial intelligence and the internet of things draw our attention from what many think is the biggest scientific development of our time. Let's face it, robots that learn how to pick fruit at optimal ripeness or remove weeds autonomously are more visual and exciting than another story about how genetic editing will change the world. But it definitely will.

Let's do a quick review. Genetic editing as we know it today arose from a process referred to as CRISPR-Cas9. More than 10 years ago scientists discovered repetitive sequences of genetic code in bacteria. These sequences are part of the bacteria's immune response to harmful organisms like bacteriophages. But for geneticists, understanding these repeating sequences and the spaces between them made it much easier to find, modify or turn off a specific piece of DNA in plants and animals.

Unlike the early transgenic GMOs, there is no foreign genetic material inserted into the DNA. It's also much more inexpensive than transgenic processes and can be done without complicated or expensive lab equipment.

So if it's been around for over 10 years, where are all the miraculous CRISPR applications? There are dozens that are close to release and I'll list some of the more compelling developments for both agriculture and human health. Many have slipped under the radar of mainstream and even farm media, but one CRISPR story received a lot of attention.

In 2018, a Chinese scientist shocked the world by announcing he had gene-edited two human embryos, making them immune to HIV. In doing so he had broken rules and ethical guidelines and was ultimately sentenced to three years in prison. It's an important story to note as it reminds us that gene editing has great potential to do good but must be used with caution and stewardship. Gene editing can be used to cure a genetic disorder in a patient or edit human embryos such that those changes are passed on to the next generation. How these types of decisions are made and by whom is a big concern surrounding CRISPR-enabled changes.

Here are just a few examples of current CRISPR-enabled developments in agriculture and human health.

Agriculture:

- Dairy cows that produce mainly female or beef cows that produce mainly male progeny
- Pigs less susceptible to respiratory disease
- Chickens impervious to avian leucosis virus
- Wheat with no gluten or only celiac-friendly gluten
- Corn hybrids that yield higher waxy corn
- Canola with improved shatter resistance
- Potatoes modified to be healthier when fried
- Bananas and cocoa crops with improved disease protection
- Algae developed to produce biodiesel via higher fat content
- Tomatoes that are spicy

Human health:

- Sickle cell and other blood disease treatment – patient stem cells are reprogrammed via CRISPR to produce healthy blood cells and delivered via transfusion. This process holds great promise for treating this and other heritable diseases caused by mutation of a single gene.
- Disease diagnostic tools – CRISPR's gene-seeking capabilities are being used to create cheap, rapid testing tools for a virus, bacteria or fungus in a person's bodily fluids. The COVID-19 pandemic lit a fire under this research and significant leaps forward have been achieved.
- Advanced CRISPR gene-editing technology called base editing is helping correct genetic diseases like Huntington's and progeria (accelerated aging) in children.
- Eradication of pests such as malaria-carrying mosquitoes or invasive species such as rats or feral cats by introducing a gene that halts reproduction.

If you spend any time investigating the potential of CRISPR and gene editing for human health and agriculture, you start to get the impression almost anything is possible. That's the promise and the challenge. Regulatory standards and public acceptance are the two key factors that will impact how quickly and how extensively gene editing is used in either field.

Old-school transgenic GMOs are pervasive globally in crops with herbicide tolerance and pest resistant traits, and despite obvious benefits over 20 years of use, a vocal minority still question their use. It remains to be seen how consumers will view genetically edited crops and livestock, but it may be an easier sell this time as there are more direct and impactful benefits to consumers.

Investigating the potential of CRISPR, you get the impression almost anything is possible. That's the promise and the challenge.

On the regulatory front, it's no surprise that there are differing views on how gene editing technology should be regulated for agriculture. Canada's current approach is that gene-edited crops should face the same approval process as transgenic traits. The United States recently adopted a less rigorous approach and views gene-edited organisms as similar to traditionally bred ones, with faster results. We know that disparities in regulatory and approval processes can cause issues for trade, so monitoring how genetic editing of crops and livestock are viewed by our trading partners is important going forward. The rapid advances in gene editing will force all countries to continue to re-evaluate their regulatory approach.

There's an excellent online resource that provides a summary of all human health and agricultural gene editing initiatives in progress. It also shows a snapshot of the regulatory realities for many countries around the world: to view, enter Global Gene Editing Regulation Tracker into your preferred search engine. ■

GLOBAL, DOMESTIC DEMAND HELP KEEP FARMLAND MARKET STRONG

Canada's farmland market remained strong and stable during a year marked by economic turbulence caused by the COVID-19 pandemic, according to our latest Farmland Values Report. The average increase was 5.4 per cent in 2020, slightly more than the 5.2 per cent increase reported in 2019.

Balance in a year of disruptions

For Canadian agriculture, disruptions included temporary food processing plant closures, some displaced exports, sector-specific labour shortages and significantly altered consumer buying habits.

"Since land is the most valuable asset on any farm operation, the agriculture land market is a good barometer," says J.P. Gervais, FCC's chief economist. "Producer investments in farmland are a reflection of their confidence and optimism."

Despite important supply chain disruptions, commodity prices climbed in the last half of 2020 for many crops and interest rates kept close to historic lows. Domestic demand for food remained strong and global supply chains continued to have an appetite for Canadian food and commodity exports, Gervais noted.

B.C. and Quebec report biggest increases

The highest average provincial increases were in British Columbia and Quebec, with averages of eight and 7.3 per cent, respectively.

Values across the Prairies were mainly influenced by tenants buying from landlords, neighbour-to-neighbour sales, producers looking for operational efficiencies, and family farm purchases to support succession plans.

Atlantic provinces saw the smallest average farmland value increases in 2020. P.E.I. reported an increase of 2.3 per cent, Nova Scotia's increase was 1.6 per cent and New Brunswick had a 1.3 per cent increase.

Atlantic drought pushes cash crops downward

Weather played a significant factor in New Brunswick, Nova Scotia and other parts of the Atlantic provinces. The region experienced the worst drought in decades, significantly diminishing the value of cash crops and creating hay and forage shortages.

Increases in farmland values across the country are as wide and varied as the factors that influence them. Averages have increased every year since 1993 and were more pronounced from 2011 to 2015 in many regions. We've seen more moderate, single-digit increases since.

Risk management key moving forward

Gervais said producers should have and maintain a risk management plan that takes into account possible economic changes, ensuring their budgets have room to flex if commodity prices, yields or interest rates shift. They also need to exercise caution, especially in regions where the growth rate of farmland values exceeded that of farm income in recent years.

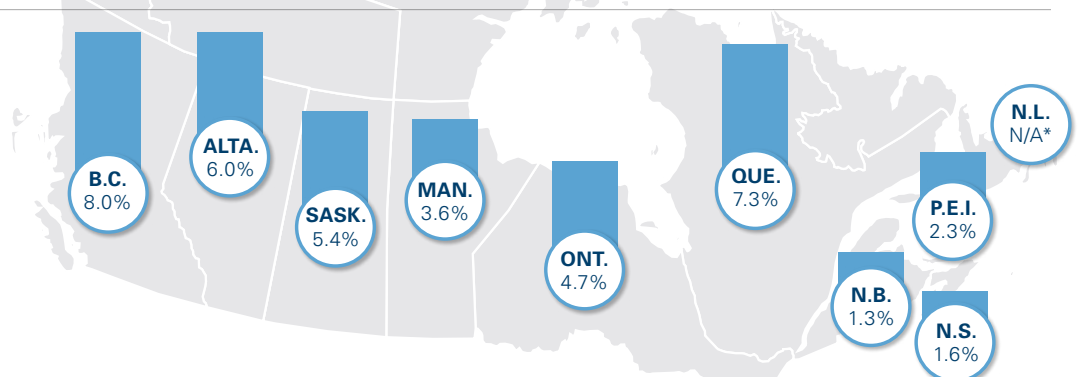
The economic outlook for 2021 is positive amid continued uncertainty. Gervais recommends farmers, ranchers and food processors continue to thoroughly evaluate their investments. "Farm operators need to have the financial ability to protect their operations from the potential impact of risks that may not be on their radar."

For more information and insights, visit fcc.ca/Economics.

Provincial comparison of farmland values

Annual % change in farmland values
January 1 to December 31, 2020

*There was an insufficient number of publicly reported transactions in 2020 to accurately assess farmland values in Newfoundland and Labrador.





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