The Real dirt on Farming

DIGEST

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6th Edition

YOUR GUIDE TO FOOD & FARMING IN CANADA

Helping you make informed choices with straight answers on...

- FOOD SAFETY & SECURITY
- ENVIRONMENTAL SUSTAINABILITY
- ANIMAL WELFARE
- TECHNOLOGY & INNOVATION




Dear reader,

Food is life. It's a common tie that binds all of us together regardless of age, where we come from, or where we live across this country. From coast to coast to coast, Canadians feel strongly about their food and where it comes from, and we've heard from people right across Canada that it's something about which they want to know more.

From food safety and the environment, to the treatment of farm animals, Canadians are keen to learn more about how food gets from the farm to their plate.

At the same time, people care about the cost of food, climate change, sustainability, and health care. These are topics farmers care about too, and here we look at the big issues facing our society, and how they are connected to food and farming.

In this publication, we answer your questions about our food, where it comes from, and what we're doing to produce food that is sustainable, healthy and safe.

To do so, we rely on the knowledge and support of a wide range of professionals who are experts in animal welfare, plant health, and safe food production. Together, we work not only to produce the best food possible, but continually to look for ways to do things even better.

This is the digest version of the full version of *The Real Dirt on Farming*. We'd encourage you to check out the full 60 page version on line at **www.RealDirtonFarming.ca** to learn more about many more topics related to the food you eat.

We're proud of Canada's food and farming story, and we appreciate your interest in learning more about it.

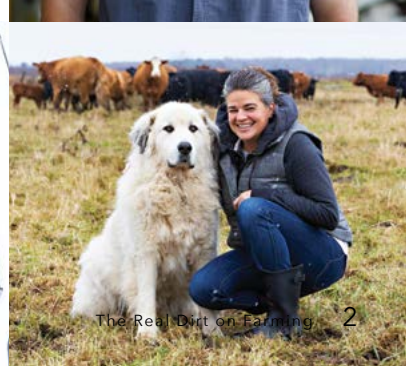
Sincerely,

Canada's Farmers and Food Producers








Lori Gasper

CANADIAN FARMS AND FARMERS – WHO IS GROWING OUR FOOD?


Lori Gasper

Food and farming are a big deal in Canada, giving us food, fuel, fibre, flowers, and fields of work. What agriculture looks like, and what it means, though, depend on where in Canada you live, with farms of all types and sizes, from small orchards and vineyards to large grain farms, greenhouses, and cattle ranches.

At a glance:

Farms are family: 97 per cent of Canada's farms are family owned and operated[1].

Farms are bigger than before: The average farm size has doubled in the last 50 years, as technology has made it easier for farmers to manage bigger farms[2]. In 2021, the average Canadian farm was 809 acres.

How big is an acre?
150 cars parked in a square,
16 tennis courts[3], or
1,032 king size beds[4]

Farms are disappearing at a slower rate than in the past: In the most recent census, the number of farms in Canada declined by only 1.9 per cent to 189,874[5], the smallest drop in 25 years[6].

The bottom line: feeding Canadians sustainably

Farmers use more tools and technologies than ever before to help make sure that we have enough food, while also reducing impacts on the environment, and ensuring that both that farming is socially responsible, while earning enough money to stay in business.

Meet Canada's farmers

Fewer than two per cent of Canadians farm, and those who do are getting older – the average age of Canadian farmers reached 56 in 2021[7]. Farming is all about family, however, with many farms handed down from one generation to the next.

Just like other businesses, farmers also hire non-family members to work on their farms. This includes seasonal and temporary foreign farm workers who can legally work here through two government-regulated programs: the Seasonal Agricultural Worker Program (SAWP), or the agricultural stream of Canada's Temporary Foreign Worker (TFW) program.

Career Profile


Canadian Federation of Agriculture

Mary Robinson

Taking farming to the United Nations

The challenges facing food production are as multiple and diverse as farmers themselves, as well as the fuel, food, fibre and ornamental goods which they grow. Mary Robinson works with her family in their Prince Edward Island farm and multiple agricultural businesses, while also representing North America's farmers as Vice President of the World Farmers' Organization (WFO). In 2024, she was also named to the Senate of Canada, representing Prince Edward Island.

With members from across the globe, the mission of the WFO is to represent the farmers' voice on the world stage.

Robinson found herself as a board member for the WFO after representing the agriculture community through other organizations, including as the first female President of the Canadian Federation of Agriculture.

"One of the most important things I've seen through the WFO is how farmers in developing countries are managing challenges. Some of the biggest gains for those farmers, including some areas where they are [doing] subsistence farming, can be recognized by helping people embrace technology. It doesn't have to be fancy either – it could be as simple as improved seed handling, or improved fertilizer usage to help increase yields and quality. Things like that can make tangible and impactful improvements to people's quality of life," says Robinson

Did you know... that according to the latest Census of Agriculture, about 30 per cent of Canada's farmers are women?

FOOD COST, FOOD AVAILABILITY, AND EATING LOCALLY

The economics of food

Food cost and availability are leading concerns for Canadians, including farmers. Food costs have been increasing much more quickly than in the past, and what it costs to produce food has also increased substantially. This effect is called food inflation, and it means tougher choices at the grocery store.

Canada's food system is complex, and there is no simple answer to what is behind high food prices. A few contributing factors include weather emergencies, and our changing climate, that can damage or destroy plants or animals; war and other problems in other countries; and pests and diseases that affect crops and livestock.

Even though our food prices have increased considerably, Canadians overall spent only approximately 11 per cent (or $0.11 of each dollar) of their disposable income on food in 2022, compared to Mexico at 26.2 per cent, India at 32.1 per cent, and Nigeria at 59 per cent[8].

And although Canada is a major food exporter, many Canadians struggle with food affordability and accessibility — an issue called "food insecurity". In remote and northern communities in particular, fresh food is scarce, and the high cost of transporting food into those regions makes many products, particularly healthy food choices, very expensive.

Food choices, labelling, and eating locally

When deciding what to eat, many Canadians can make choices based not just on cost or availability, but also on nutrition, health, or production methods. There are many types of farms in Canada that grow their crops and raise their livestock following different production practices, such as conventional (non-organic) or certified organic production. Regardless of how it is produced, all food in Canada is rich in nutrients, and must meet the same food safety standards.

Food labels are critically important for people with diagnosed dietary needs, so they know that what they are eating is safe to consume. However, marketing labels can be misleading, so it pays to do a little research when making food choices. For example, gluten free products are not any healthier; they are just made with ingredients that don't include gluten, a natural protein found in grains that can cause allergies or sensitivities[9].

Eating local food is very popular in Canada, with farmers' markets, local food stores, food hubs, and "buy local" campaigns all across the country.

Not only does that support jobs in local communities, but it also reduces food's environmental footprint if a product comes from a farm 20 minutes away, compared with being shipped thousands of kilometres.

Every crop is ready for harvest and eating at a different time of the year, but you might not notice that because today, we can buy imported strawberries, asparagus, or sweet corn, at the grocery store all year long. That means that at certain times of the year, the food miles (or distance a popular food item has to travel to get from farm to market) is much higher than usual.

Career Profile

Benjamin Feagin
Agritech North

Fresh food grown for – and by – remote communities

Fresh produce is difficult to come by and very expensive in Canada's remote northern communities. Benjamin Feagin Jr. is working to change that with AgriTech North – a community-driven vertical farm business based in Dryden, Ontario.

AgriTech North produces 70 varieties of leafy greens, herbs, and small fruiting crops. They're grown indoors year-round, and shipped to over 50 remote and fly-in communities. Feagin, the company's chief executive officer, hopes to expand access to fresh, lower-cost produce to 600 different communities.

"We currently serve Kenora, Dryden, Sioux Lookout, and everywhere in between. Our operational area is very spread apart and works in places with very little infrastructure. If we want to move our product, we have to come up with the distribution network," says Feagin.

They are working with Grand Council Treaty #3 and have initiatives in a number of the communities to advance Treaty #3's food sovereignty mandate.

Aside from delivering produce, Feagin and his colleagues are also enabling individual communities to operate their own vertical farms, and generate their own parts using 3D printing.

"We expect 3D printers to eventually be commonplace. The intention is to enable remote communities to print replacement parts and not rely on long supply chains, or poor-quality parts, in order to operate."

BC Agriculture Council

SUSTAINABLE FARMING, CLIMATE CHANGE, AND INNOVATION

BC Agriculture Council

The future of agriculture and food production depends on the environmental, social, and economic sustainability of Canada's farms. Increasingly, farmers are turning to technology and innovation to help them adapt to ever more sustainable and resilient food production:

- New and faster plant breeding methods are leading to crops that are better able to resist pests, drought, heat, excess moisture, and frost.
- Smart irrigation systems only water crops when the plants are thirsty, reducing water use, and resulting in stronger, more quickly growing plants.
- Smart imaging technology on sprayers can differentiate between crop plants and weeds, and applies pesticide only on the weeds instead of the entire field. This method can reduce pesticide use up to 90 per cent[10]!
- Farmers are using drones and robots to help identify pest or disease problems in the field, or to monitor livestock.

Regenerative agriculture

Part of sustainable farming means leaving the land productive for future generations. Improving soil health over time is now called regenerative agriculture, but it's something farmers have been doing for decades.

Key principles include disturbing the soil as little as possible; using livestock and their manure to improve soil health; growing diverse crops from year to year; and making sure that the soil is covered at all times by growing cover crops after the main crop has been harvested.

All of these techniques reduce the impact of climate change by keeping carbon in the soil. This process of carbon sequestration results in some areas of the Prairies now being net zero greenhouse gas emitters.

Sustainably managed livestock are also part of the solution to the climate change challenge, with advances in areas like genetics and nutrition leading to more environmentally efficient animals.

Profile

Crush Dynamics

Containers of grape puree made from pomace

Upcycling winemaking waste into healthy, sustainable food ingredients

A British Columbia company has patented a technology to upcycle grape pomace – the skins and seeds left over from winemaking – into an extremely functional ingredient that can help reduce the amount of sugar, salt and preservatives used in food and beverage production.

It's estimated that wineries dispose of about one litre of edible grape waste for every two litres of wine produced, or about one third of each wine grape. Currently, this waste mostly goes into landfill, contributing to carbon dioxide emissions, and costing wineries money in disposal costs.

At the same time, food and beverage manufacturers are looking to reinvent their product to reduce sodium and sugar, to extend shelf life, and to use fewer ingredients.

Crush Dynamics Inc., established in B.C.'s wine country in 2016, is using targeted fermentation to transform naturally occurring polyphenol compounds (which act as health-boosting antioxidants) found in grapes, into an ingredient that has many functional properties for the food and beverage world.

The company's first products were Ruby Purée, compatible with formulations such as sauces, chocolate, and red meat alternatives, and Gold Purée, targeted at plant-based dairy and chicken alternatives, lighter sauces, sports nutrition, and breads.

Currently, Crush Dynamics works with world renowned wineries in British Columbia – it's estimated that the Okanagan Valley alone generates approximately 12,000 tonnes of grape pomace annually – but the long-term goal is to scale up the process to other wine regions around the world.

The company has received considerable business development and management support from Bioenterprise Canada, a food and agri-tech commercialization accelerator that helps businesses bring promising new technologies to market.

Quick fact:

Agriculture accounts for approximately 10 per cent of Canada's greenhouse gas emissions[12]. In 2020, for example, farm animals comprised approximately 4.3 per cent Canada's total greenhouse gas emissions[13].

Greenhouse gas emissions

Overall, greenhouse gas (GHG) emissions from Canadian agriculture have stayed about the same for the last 20 years[11], even though the quantity of food production has increased dramatically. That's mostly because farms can grow and raise more food while using less land, water, and fuel. GHGs include carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O).

Food waste and loss

Food loss usually happens during food production, storage, processing, or distribution, whereas **food waste** happens at the end of the food chain, when food that is of good quality, and fit for consumption, is discarded.

In 2022, Canadians wasted the equivalent of 450,000 eggs, 1,000,000 cups of milk, and 2.4 million potatoes every single day[14].

Farmers and food producers are finding creative ways to use food waste, such as:

- Upcycling used café and brewery ingredients into flours, baking mixes, and sustainable oils[15].
- Repurposing apple pomace — what's left of the fruit after juice production — into a thickening agent (for food production) that's also an added source of fibre[16].

This circular economy approach is used on the farm as well, where livestock can be fed the by-products of human food production, like distillers' grains from brewing and ethanol production; soybean meal leftover from oil extraction; or sugar beet pulp. Cattle are also being fed whole produce that isn't appealing to consumers, such as crooked carrots or cull potatoes.

This helps keep food production more sustainable, and waste out of landfill where it would contribute to greenhouse gas emissions.

Career Profile

Kim Wilhelm
Food Banks Canada

Supporting communities with healthy food

Kim Wilhelm and her colleagues at The Food Bank of Waterloo Region help those in need access high-quality, nutritious food – and they often work with farmers to do it.

With over 120 community and agency partners, The Food Bank of Waterloo Region is one of the larger Food Bank chapters in Ontario. For Wilhelm, this gives them an opportunity to help other Food Bank locations better manage and distribute donations.

"Think of the Waterloo Food Bank as a distribution centre. Our responsibility is to acquire, store and distribute the food to our agency partners and programs. It's those partners and programs that directly provide food to the community," says Wilhelm.

"We also work with over many food banks in Southwestern Ontario, including some smaller ones that simply don't have the space or staffing to store and distribute large amounts of food. If they receive a phone call from a corporate partner with a significant amount of product to donate, they simply can't absorb it. We help them manage that."

The corporate partners Wilhelm refers to often includes farm organizations. For example, she and her team are currently working with Dairy Farmers of Ontario to provide milk to their wider community network.

"Good food leads to good health. If we ensure people in the community are getting better nutrition in their diets, it will help in other aspects of life."

The Waterloo Food Bank also works with individual farmers. Indeed, large donations of fruits, vegetables, eggs, meat, and other food products are common.

Lauren Miller

Healthy and safe food

Safe, good quality food options are something most Canadians don't have to think about very often. That's because there are regulations and safety systems throughout the Canadian food system, and ultimately, safe food starts on the farm, with farmers.

Antibiotics and resistance

Antibiotics are a type of antimicrobial medication used to fight or prevent bacterial infections in people and animals. Resistance develops when the bacteria develop the ability to survive exposure to the antibiotics used to treat infections potentially cause, rendering the medication ineffective.

Antimicrobial resistance happens naturally[17], but can be made worse by environmental contamination, or by misusing antibacterial cleaning products, such as overuse in human or animal medicine[18].

Farmers need a veterinary prescription to buy most antibiotics for livestock or poultry, and using any of these products to promote growth is banned[19]. Better animal housing, nutrition, and health, mean that fewer antibiotics are used on farms today than in the past.

Hormones, livestock, and meat

Fact: Hormones occur naturally in plants and animals, so there is no such thing as hormone-free food[20]. Scientifically, it just isn't possible.

Dairy cows, veal cattle, pigs, chickens, and turkeys in Canada are not given hormones for production or growth promotion — that's been illegal for about 60 years.

Government-approved hormone growth promoters are tools used in raising beef cattle to improve the animals' ability to gain muscle and deposit less fat. This process helps farmers and ranchers to produce more beef with less feed, and to produce fewer less greenhouse gases.

Worldwide, the use of hormones in cattle has been confirmed as being safe and without impact on human health, by agencies including Health Canada, the World Health Organization, and the United Nations, and this conclusion is based on ongoing research and monitoring[21].

Agriculture in the Classroom SK

What about pesticides?

Pesticides include herbicides for weed control, insecticides for insect control, and fungicides to manage fungal diseases. They are one of the most effective tools farmers have to keep insects, weeds, and diseases from damaging and destroying fruits, vegetables, and field crops.

Canadian farmers who use pesticides have to follow strict rules, and are only allowed to buy and use products that the government has found to be safe for people and the environment. That's the responsibility of the Pest Management Regulatory Agency (PMRA), a part of Health Canada, which only approves products for use, after years of review and testing have proven that they're both safe and effective.

There's no such thing as "zero" when you're looking for residues or controlling risks, but Health Canada sets the acceptable amount of pesticide allowed to remain on food — called Maximum Residue Limits (MRL) — far below the amount that could pose a health concern, just to be sure that people and food are safe.

Career Profile

Andrea Elias

A passion for animal care

Coming from a mixed grain and livestock farm in Southern Manitoba, Andrea Elias always gravitated to working with her family's cattle and pig herd. Indeed, caring for animals was an early passion, and one she turned into a successful career.

"I went to Lakeland College in Alberta to be an Animal Health Technician – what people also call a Veterinary Technician. It was a natural progression for me because taking care of animals was always my favorite part of farming," says Elias.

"My absolute favorite part is farrowing — looking after the pregnant sows and piglets."

Elias currently works as a manager at a Manitoba pig farm about 100 kilometres away from where she grew up. She had previously spent time in a variety of other positions within the livestock sector, generally working directly with animals, and is a district advisor for Manitoba Pork — the organization representing pig farmers in her province. She is also a teacher.

"Educating our younger generation about the swine industry is another passion of mine," says Elias. "I have taught an annual class for University of Manitoba agriculture students, shared information during a couple of virtual 4-H meetings, and participated in making a video for the Agriculture in the Classroom program on YouTube."

While the animals are the primary draw and driver of Elias's work, she also appreciates her colleagues in the pork business. When not at work, she raises a small laying hen flock, pets, and two children, with her husband on a small rural acreage.

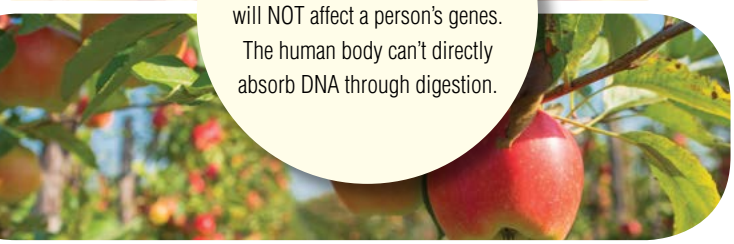
"Manitoba's pork sector is a really big business, but it's still very personal. Every day is a little bit different. There's always something interesting happening," she says.

Plant breeding for more sustainable food production

Traditional plant breeding is a very long and expensive process that involves cross breeding two plants, growing new plants from the seeds produced, and painstakingly selecting the offspring with the desired combination of traits — over, and over, and over again.

Modern technologies build on conventional plant breeding, allowing for faster and more efficient development of new crops and plants that have traits to make them more resistant to disease, drought, or other weather extremes; to improve flavour; or make them healthier.

The latest plant breeding tools are part of the "-omics" family. Genomics, for example, is all about the DNA — or the written instruction book — of an organism. Scientists study the genomes of plants to look for desirable traits, and then use genetic markers to identify where on a specific DNA sequence they are located, speeding up the plant breeding process.



Quick fact:

Eating a genetically modified crop will NOT affect a person's genes. The human body can't directly absorb DNA through digestion.

Career Profile

Anthony Dreaver Johnston

Anthony Blair Dreaver Johnson with Katherine Finn, project manager for Bridge to Land Water Sky

Living lab inspiring next generation of Indigenous agricultural producers

Living labs operate in real-life settings, bringing together farmers, scientists and others to develop and test innovative practices and technologies that address agri-environmental issues.

The Bridge to Land Water Sky living lab project is the first Indigenous-led living lab in Canada, led by the Mistawasis Nêhiyawak in Saskatchewan in collaboration with the Muskeg Lake Cree Nation NGO, institutional and government partners. The "bridge" refers to relationship building – both with people, and with land, water and sky.

Anthony Blair Dreaver Johnston is a member of the Mistawasis Nêhiyawak, and acts as a special advisor for his Nation. He said that the living lab's goal is to inspire a more resilient agriculture industry and the next wave of Indigenous agricultural producers who can learn to be farmers as their grandfathers once were.

Johnston explained, "My ancestors were buffalo people, people of the plains. But they knew that they needed to find a new way to provide for the people because buffalo were going extinct. Agriculture was a new way to provide. Our ancestors became very successful farmers who had intimate relationships with land, with water, and with sky. I grew up knowing that both my grandfathers were good farmers."

Unfortunately, said Johnston, "That wasn't sustained. We're no longer farmers. We are no longer producers. We've lost a lot of our land."

The project involves training, education and engagement with youth; inspiring them to become a future farmer, a combine driver, a greenhouse grower – anything to do with agriculture. Said Johnston, "We know that all of our members won't want to do the same thing. One size won't fit all. It's about looking at food sovereignty for our people and our nation. We want those opportunities for our young people, and we want to combine the values of our ancestors with the ways of the 21st century."

To learn more visit: **www.BridgetoLandWaterSky.ca**

CROPS AND PLANTS

Canadian farmers grow a diverse variety of crops across the country — crops used both here at home, and exported around the world. You'll find everything from pulses, grains, and oilseeds, to fruits, vegetables, flowers, and specialty crops, such as herbs, in Canada's fields, orchards, vineyards, and greenhouses. Some crops also make great wine, cider, beer and spirits.

Farmers will often grow a variety of crops for different markets. Which ones they choose to grow depends on many things, such as the soil and climate in their cultivation areas.

Soybeans and grain corn are mainly grown in Ontario, Québec, and Manitoba, while canola, barley, oats, and wheat, mustard, peas, and lentils are grown primarily in the Prairie Provinces. Ontario, British Columbia and Québec are where most of Canada's fruit and vegetable crops are grown.

Growing food and flowers indoors year-round is becoming more popular, whether in traditional greenhouses, vertical farms where crops grow in stacks instead of side by side, or in smaller, self-contained units that resemble shipping containers. Canadian indoor crops include cucumbers, peppers, tomatoes, mushrooms, strawberries, lettuce, herbs, microgreens, cannabis, and more.

Career Profile

Peta Gay Bennett
Seasonal Agricultural Worker

Working in Canada to support her family

Peta Gay Bennett has been coming to Canada from Jamaica for about five years now through the Seasonal Worker Agricultural Program. She first started in Nova Scotia in 2019 before moving to Ontario.

She grades and packs asparagus. She said that she came to Canada to make a better life for herself and her family. "I have two kids. They're back home with their grandma, their father and aunties. My daughter is five and my son is two. It's hard to leave them when they're this young still. "

Daily, she communicates with her family by video calls. When asked what she'd like Canadians to know about her and her coworkers, Bennett said, "Canadians should know that we're hard working people. We're definitely hard working. Once we put our mind to something, we definitely can do it."

GMOs, plant breeding and genetic engineering

More than 10,000 years ago, the earliest plant breeders were knowingly and unknowingly selecting plants that had desirable traits, including those needing a shorter growing season, or producing higher yields, or larger seeds or fruits.

Traditional plant breeding is a very long and expensive process that involves cross breeding two plants, growing new plants from the seeds produced, and painstakingly selecting the offspring with the desired combination of traits — over, and over, and over again. It can take many years to get the right combination of traits, and for new varieties to become available.

What's a GMO? GMO stands for **genetically modified organisms**. It's a term that technically could be applied to almost all plant-based food we eat today, as they've all been modified over time, but when people talk about GMOs, they're most often referring to genetic engineering.

Genetic engineering, or genetic modification, is a form of biotechnology in which laboratory methods bring together genetic material from multiple sources. What distinguishes genetic engineering from conventional breeding is the use of recombinant DNA technology. An example: a gene from another species is added to a crop's DNA to make it more functional, such as corn that produces a toxin that is lethal to certain crop-killing bugs—meaning that farmers can reduce their insecticide use.

Genome editing, by comparison, typically involves targeting and changing specific genes within a plant. To edit genes, scientists use a sort of molecular pair of scissors to cut DNA in a desired spot, and then make use of the plant's own natural DNA repair mechanism. It could potentially be used to make milk, eggs, or peanuts safe for everyone to eat, saving people from allergies that could be life-threatening.

Six GMO crops are commercially grown in Canada:

A further eight are grown in other parts of the world, including apples, cotton, eggplant, papaya, pink pineapple, squash, wheat and sugarcane.

FARM ANIMALS

Did you know...

Many barns have smart sensors that closely monitor key metrics, such as temperature and humidity levels, and will instantly notify the farmer the moment these conditions change, so that the farmer can take action.

Farmers across Canada raise a wide variety of livestock and poultry to produce meat, dairy, eggs, fibre, and many other products. Some of Canada's most common farm animals are beef cattle, dairy cows, pigs, turkeys, chickens, laying hens, veal cattle, sheep, and goats – but Canadian farmers also raise bison, elk, rabbit, mink, bees, fish, shrimp, mussels, and even insects.

Grazing animals like cattle, sheep and horses often live outside year-round with access to food, water, and shelter. Most livestock and poultry, however, live in barns, to protect them from extreme weather and predators, and where farmers can better monitor their health and welfare and make sure they have clean water and nutritious feed.

Barns are designed to meet the needs of different livestock species, and the types of production methods farmers follow. Many barns have curtain sidewalls that can be rolled up to let in fresh air and sunshine, while some also have sprinklers to keep animals cool in hot weather.

Most livestock and poultry farms also have very strict rules, called "biosecurity protocols", to keep diseases from coming into barns or on farms. Farm visitors only go into a barn if they absolutely have to, and if they do, they may be asked to put on protective footwear and clean overalls – or even take a shower first – to keep outside germs from entering the barn.

Technology is playing an increasingly big role in how farmers look after livestock. Barn heat and electricity can be controlled by computer or mobile device, and sensors and smart systems track everything, from feed consumption to how many steps an animal takes each day — all in an effort to keep animals healthy.

Research to find better ways to raise livestock and poultry is constant, and farming practices are an evolving balancing act between animal needs, safe food, and environmental and economic realities.

Career Profile

Hans Kristensen

Hans Kristensen is a pork and poultry farmer in Maritime Canada, managing farms in both New Brunswick and Nova Scotia. Six years ago, he was pleased to be invited to serve as a board member to the National Farm Animal Care Council (NFACC). "I had always had a lot of respect for NFACC and what they did, but until I got more involved, I realized I'd only known about 10 per cent of their work — really, just the tip of the ice berg," he said.

NFACC is the national lead for farm animal care and welfare in Canada. Made up of a broad cross-section of shareholders including farmers, government, animal welfare organizations, researchers, restaurant operators, veterinarians, retailers, transporters, and processors, it is tasked with overseeing the process by which the national Codes of Practice for the care and handling of farm animals are reviewed and updated.

There are currently 14 Codes of Practice for various species of livestock developed through NFACC. They provide critical guidance for the care and handling of farm animals, and serve as a base of national understanding of animal care requirements and recommended practices.

Kristensen, now NFACC's chair, said, "A lot of times in society, the stakeholders working together on NFACC committees might be more inclined to be on opposing sides of a discussion. But we've all got more in common than we might initially realize. Everyone at the table is an animal welfarist. We all have the same goal — to continue to move animal welfare practices forward. And if we can change confrontation to consensus, the entire industry benefits."

Once a Code is developed, it is reviewed every five years, and then goes through a significant update every ten years. "I view them as living documents," said Kristensen. "Just because it's signed off on by all participants and put in a binder doesn't mean it's finished. As new technologies emerges, new viewpoints come forward and new science is learned, [and] it all goes into the Code process. We're always looking to improve animal welfare practices across Canada."

"There is no other organization on earth like NFACC," Kristensen concluded. "I am exceptionally proud of that because what we do is different. There will always be challenges and different viewpoints on how to care for animals, but through communications and relationship building, we're making a big difference in the care of animals in Canada."

To learn more about NFACC's work, visit **www.nfacc.ca**.

The rules for raising farm animals humanely

Like all animal owners, farmers must follow laws for humane treatment, including the federal criminal code and each province's animal care laws. Instances of animal neglect or abuse do occur, but they're a crime, and are unacceptable.

Check out www.FarmFood360.ca to tour 27 Canadian farms and food processing facilities virtually.

FARM FOOD 360°

Facing the future of food and farming, sustainably

The world is always changing, and that change includes how farmers grow food, how it gets from the farm to our dinner tables, and what Canadians expect of our food system.

Farming and food production has changed a lot even in just the last decade, as more technology and innovation are used to help make farming easier, to grow better crops, to raise healthier livestock, and to support a more sustainable environment.

Canadians across the country are dealing with the big issues that are affecting people around the world as well: the cost of food, sustainable farming, and our changing climate.

As farmers, we face these issues too. All of us want affordable, safe, and healthy food that is produced in a sustainable way that respects people, animals, and the planet. As farmers, that's been our focus for generations, and will continue to be our priority and our commitment for decades to come.

Thank you for supporting Canadian food, and for being interested in how and what Canadian farmers do to produce it. We value your trust in us — and by working together, we can continue to focus on a sustainable future for our planet and its people.

That's the real dirt.

Career Profile

Lynn Leavitt

Promoting recycling of agricultural plastics

Eastern Ontario beef farmer Lynn Leavitt has developed a system for collecting, compacting, and wrapping agricultural plastics — bale wrap, silage bags and plastic twine — so that these materials can be neatly and economically trucked to a plastic recycler.

Farmers aren't getting paid for recycling this used plastic, but Leavitt says that there is considerable value in knowing that this material is being repurposed.

In 2016, Leavitt designed and built what was later to be called the Pac-It compactor. It is a relatively low cost but effective way to handle used plastic so that it can be recycled.

His efforts in developing the Pac-It compactor, and promoting agriculture plastic recycling over the years, earned him recognition as the Beef Farmers of Ontario's 2023 nominee for The Environmental Stewardship Award (TESA).

Farmers bring their bundled plastic to the Leavitt farm. Over the years, Leavitt says that the plastic recycling system to date has sent about 225,000 pounds of plastic to the recycling plant, and of that, about 30,000 pounds has come from the Leavitt farm.

The used plastic is made into biofuel, the biofuel is used to power the farm tractor that is putting up feed into plastic bags and tubes, and then that used plastic will be used again to produce more biofuel. It will be one more way to reduce the carbon footprint of agriculture."

Condensed from a story by Lee Hart. For the full story visit: https://cancattle.wixsite.com/mysite/post/celebrating-environmental-stewardship-leavitt-s-black-angus-beef-ontario

Career Profile

Rashmi Prakash

Turning food and farm byproducts into compostable fibres for health products

A Canadian start-up is turning heads for its unique approach to transforming some of Canada's 35.5 million tonnes of annual agricultural byproduct and food industry waste – like canola stalks, corn stover, leaves, pulps, and peels – into 100% biodegradable, compostable, plastic-free menstrual pads.

The Aruna team has developed a proprietary fibre extraction process as well as a novel, leak-proof pad layer in which natural fibres play a key role. Much of their research and development has focused on identifying the properties of different fibres – such as length and diameter – instead of specific plants or crops that could work well for their products, all of which means that they can use a wide range of different raw feedstocks, including even invasive species like cat tails, in their manufacturing processes.

The company is currently building a facility in Nova Scotia in advance of a product launch and is looking to Canadian farmers who would be willing to supply fibres for their products.

"Because of the scale of menstrual products needed, we will need a wide variety of materials, and as we scale up and set up micro-manufacturing facilities in different parts of the country, we can use more local fibres," says Aruna co-founder Rashmi Prakash. "We're a proud Canadian company and want to support Canadian farmers while making healthcare products more affordable and safer for body and planet."

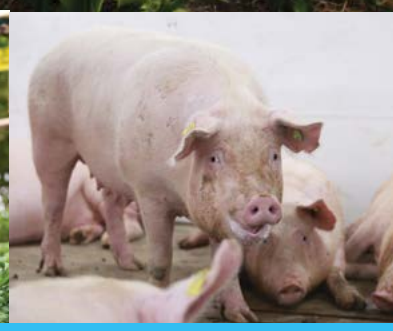
In 2023, Aruna won the $45,000 grand prize in the The Green Pursuit, a national sustainability and innovation challenge hosted by Dairy Farmers of Canada (DFC) and Bioenterprise Canada.

Farm photos in this booklet are all taken of Canadian farms and farmers. Many of the images were winning entries in the Farm & Food Care's 2023 Farm Photo contest. Photo credits are listed where available.

Sources, where noted, are available in the online version of this publication at www.RealDirtonFarming.ca

Cover photos: Samantha Kennedy, JoAnne Maurier, Hailey Rast, Lauren Miller, BC Ag Council



About Us

Farm & Food Care cultivates appreciation for food and farming by connecting farm gates to our dinner plates. Farm & Food Care brings farmers, agricultural professionals, related businesses, and other groups together with a mandate to provide credible information on food and farming in Canada.
If you have a question, we'd be pleased to answer it.

www.FarmFoodCare.org
www.RealDirtonFarming.ca
www.CanadianFoodFocus.org
www.FarmFood360.ca

Visit www.RealDirtonFarming.ca/Contests for your chance to win one of 10 Canadian local food prize packs valued at $250.

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