

Town of Arnprior Regular Meeting of Council: January 24, 2022

Correspondence Package No. I-22-January-02

Recommendation:

That the Correspondence Package No. I-22-January-02 be received as information and filed accordingly.

General Information Items:

- 1. Correspondence from the Province of Ontario
 - a) Ontario Accelerating Boosters for Education and Child Care Staff
 - b) Ontario Providing Supports for Small Businesses, Workers and Families
 - c) Ontario Continues to Support Families and Businesses during COVID-19 Pandemic
 - d) Ontario Renews Scholarship in Honour of Iran Plane Crash Victims
 - e) Ontario Takes Action to Support Staffing Access in Schools
 - f) Ontario Continues to Add Hospital Beds and Build Up Health Workforce
 - **g)** Ontario Launching School-Based Vaccine Clinics as Students Return to In-Person Learning
 - h) Ontario Launches Virtual 2022 Budget Consultations
 - i) Ontario Cuts Electricity Rates to Help Workers, Families and Small Businesses
 - j) Applications Open for Ontario Business Costs Rebate Program
 - k) Government Increasing Veterinarian Capacity for Ontario Farms

2. Correspondence from County of Renfrew

a) COVID-19 Case Summary – January 13, 2022

- b) Renfrew County Residents Are Reminded That Emergency Departments Are for Urgent Care, Not Asymptomatic COVID-19 Testing or the Treatment of Mild COVID-19 Symptoms
- c) Statement of Support from RCDHU Medical Officer of Health Regarding the Return to School
- d) Go VAXX Bus Comes to Renfrew County and District
- e) Vaccine News Brief Edition 34 & Local Infographic
- f) Media Release Ontario Winter Games Postponed Until 2023
- 3. Correspondence from Farm and Food Care Ontario
 - a) The Real Dirt on Farming Booklet
- 4. Correspondence from Ontario Health East Region Patient and Family Advisory Council
 - a) Advisory Council Opportunity
- 5. Correspondence from Arnprior & District Archives
 - a) Press Release Digitization of Arnprior Chronicle Guide
- 6. Correspondence from Town of Arnprior
 - a) Press Release Outdoor Recreation Safety
- 7. Correspondence from Ottawa Valley Business
 - a) January 18, 2022
- 8. Correspondence from Association of Municipalities of Ontario (AMO)
 - a) Watch File January 6, 2022

STATEMENT

Ontario Accelerating Boosters for Education and Child Care Staff

Dedicated COVID-19 Booster Clinics for Education and Child Care Staff Will Help Improve Access

January 06, 2022 Education

Today, Stephen Lecce, Minister of Education, issued the following statement on additional measures and supports to protect children, staff, and families as Ontario responds to the Omicron variant:

"As part of our government's response to the Omicron variant, we are providing greater access to COVID-19 booster shots for education and child care staff. Starting tomorrow, these staff in the Greater Toronto Hamilton Area will have planned access to vaccines at the International Centre in Mississauga as we work with all other public health units to urgently set up more clinics across Ontario. This is in addition to existing vaccine clinics with dedicated access for education and child care staff, including for example at CHEO in Ottawa, and select City of Toronto run clinics.

We are also further strengthening our protections for child care centres by introducing additional safety measures, including stricter screening protocols and deploying non-fit-tested N95 masks to support frontline workers.

Throughout this pandemic, critical staff on the frontlines have continued to carry out their work – from nurses, to personal support workers, to grocery workers and pharmacists – so that we can protect our communities. We owe it to them to ensure their children are cared for during this period, which is why our government is once again providing these frontline and critical workers with free emergency child care for their school-aged children. We thank education and child care staff, operators, and all Ontario families for their hard work, vigilance and kindness through this incredibly difficult time."

Acceleration of COVID-19 Boosters

To accelerate access to vaccines, starting January 7, the provincial mass vaccination clinic at the International Centre in Mississauga will support priority booking for education staff, including educators, custodial staff, administrative staff, and school bus drivers, and child care staff. The clinic will operate seven days a week, with specific appointments being made available for education and child care staff from 4:30 p.m. to 8 p.m.

Eligible staff are encouraged to book their appointment through the Provincial Vaccine Booking Line at 1-833-943-3900.

For individuals living outside the GTHA, the Ontario government is working with all public health units (PHUs) to plan and provide access to third doses for education and child care staff. Local PHUs will provide further information on how vaccines can be accessed in their communities as it becomes available. School boards have an opportunity to use schools as a site for vaccination clinics together with PHU partners.

These measures being announced today build on the government's previous efforts and investments to improve safety in schools during the pandemic. Measures currently in place include:

- providing optional non-fit-tested N95 masks to all education staff, scheduled to arrive by the end of this week
- updated and stricter screening requirements to help limit the spread of COVID-19
- ventilation improvements measures at every school across Ontario, including more than 70,000 HEPA filter units and other ventilation devices already deployed to schools, with an additional 3,000 units being provided
- access for school boards to \$1.6 billion in resources to protect against COVID-19.

Child Care Safety Measures

All child care settings have continuously received quality PPE, additional funding for cleaning, and updated protocols and guidance for staff and families.

Ontario Accelerating Boosters for Education and Child Care Staff | Ontario Newsroom

The below measures have also been put in place to ensure children, staff, and communities remain as safe as possible:

- providing optional non-fit-tested N95 masks for staff in licensed child care settings starting January 10, 2022
- updating and enhancing child care screening measures to help limit the spread of COVID-19.

The Ministry of Education and the Ministry of Health are working together with an aim of making more rapid-antigen tests available to support the ongoing operations of child-care centres, and schools when they return to in-person learning.

Emergency Child Care Eligibility

Starting January 10, 2022, the following workers are eligible for free emergency child care:

- health care workers, including but not limited to doctors, nurses, health care providers and those who work in longterm care and retirement homes, as well as individuals who manufacture or distribute medical/pharmaceutical supplies
- individuals performing work in relation to the administration, distribution or manufacturing of COVID-19 vaccines
- education staff who are required to attend schools to provide in-person instruction and support to students with special education needs who cannot be accommodated through remote learning
- child care workers, including those staffing the emergency child care programs
- truck drivers and transit workers
- construction workers
- grocery store and pharmacy workers
- public safety (police, fire, paramedics, provincial inspection/enforcement), justice/court and correctional system workers
- power workers
- non-municipal water and wastewater workers
- frontline staff in Children's Aid Societies and residential services
- individuals working in a homeless shelter or providing services to homeless persons
- individuals working in developmental services, violence against women services, victims' services, anti-human trafficking and those engaged in interpreting or intervenor services for persons who are deaf or deaf-blind
- food safety inspectors and individuals working in the processing, manufacturing or distribution of food and beverages
- workers involved in the collecting, transporting, storing, processing, disposing or recycling of any type of waste
- certain federal employees, including RCMP, Canada Border Services, Canadian Armed Forces and Canada Post workers
- OPS staff employed in Radiation Protection Services
- OPS staff performing critical tasks related to environmental monitoring, reporting and laboratory services
- employees of a hotel or motel that is acting as an isolation centre, health care centre, vaccine clinic or housing essential workers
- funeral, burial and cremation services operators
- any individual whose child was registered in an emergency child care program delivered by a Consolidated Municipal Service Manager or District Social Service Administration Board during the time period beginning on April 6, 2021 and ending on April 16, 2021.

To confirm whether or not your family is eligible for access to emergency child care, please contact your local service system <u>manager</u>. See a <u>full list of eligible workers</u>.

Media Contacts

Caitlin Clark Minister's Office

caitlin.clark@ontario.ca

Ingrid Anderson Communications Branch ingrid.e.anderson@ontario.ca 437-225-0321

Ontario Providing Supports for Small Businesses, Workers and Families

Province's plan includes \$10,000 grant for eligible small businesses and additional electricity-rate relief

January 07, 2022 <u>Finance</u>

TORONTO — The Ontario government is providing targeted relief for businesses and people impacted by the current public health measures aimed at blunting the spread of the Omicron variant. As part of this plan, the government is introducing a \$10,000 grant for eligible businesses that are subject to closures under the modified <u>Step Two of the Roadmap to Reopen</u> and is providing additional electricity-rate relief for businesses, as well as workers and families spending more time at home.

"Our government understands that public health measures needed to blunt the spread of the Omicron variant are impacting the lives and livelihoods of small businesses, workers and families across Ontario," said Peter Bethlenfalvy, Minister of Finance. "Since the first day of the pandemic, we have provided unprecedented levels of support to protect people, jobs and our economy. We will continue to deliver on that commitment."

As part of a comprehensive plan to support workers and businesses, the government is announcing an Ontario COVID-19 Small Business Relief Grant for small businesses that are subject to closure under the modified Step Two of the Roadmap to Reopen. It will provide eligible small businesses with a grant payment of \$10,000.

Eligible small businesses include:

- Restaurants and bars;
- Facilities for indoor sports and recreational fitness activities (including fitness centres and gyms);
- Performing arts and cinemas;
- Museums, galleries, aquariums, zoos, science centres, landmarks, historic sites, botanical gardens and similar attractions;
- Meeting or event spaces;
- Tour and guide services;
- Conference centres and convention centres;
- Driving instruction for individuals; and
- Before- and after- school programs.

Eligible businesses that qualified for the Ontario Small Business Support Grant and that are subject to closure under modified Step Two of the Roadmap to Reopen will be pre-screened to verify eligibility and will not need to apply to the new program. Newly established and newly eligible small businesses will need to apply once the application portal opens in the coming weeks. Small businesses that qualify can expect to receive their payment in February.

"Small businesses, job creators and the entrepreneurial spirit are the backbone of Ontario's economy. Unfortunately, these businesses have been some of the most impacted by COVID-19, and many continue to struggle," said Vic Fedeli, Minister of Economic Development, Job Creation and Trade. "Since the start of the pandemic, we have provided unprecedented supports for businesses in every region of the province. With the new Ontario COVID-19 Small Business Relief Grant, our government will provide relief for thousands of small businesses that create jobs for hard working Ontarians."

The Ontario government is also providing electricity-rate relief to support small businesses, as well as workers and families spending more time at home while the province is in Modified Step Two. For 21 days starting at 12:01 am on Tuesday, January 18, 2022, electricity prices will be set 24 hours a day at the current off-peak rate of 8.2 cents per kilowatt-hour, which is less than half the cost of the current on-peak rate. The off-peak rate will apply automatically to residential, small businesses and farms who pay regulated rates set by the Ontario Energy Board and get a bill from a utility and will benefit customers on both Time-of-Use and Tiered rate plans.

Ontario Providing Supports for Small Businesses, Workers and Families | Ontario Newsroom

"We know that spending more time at home means using more electricity during the day when prices are higher, that's why we are moving to off-peak electricity rates 24 hours per day, seven days a week," said Todd Smith, Minister of Energy. "The off-peak rate will provide immediate savings for families, small businesses and farms as all Ontarians work together to slow the spread of the Omicron variant."

Further, online applications for the previously-announced <u>Ontario Business Costs Rebate Program</u> will open on January 18. This program will provide eligible businesses that are required to close or reduce capacity with rebate payments for up to 100 per cent of the property tax and energy costs they incur while subject to public health measures in response to the Omicron variant.

Eligible businesses required to close for indoor activities, such as restaurants and gyms, will receive a rebate payment equivalent to 100 per cent of their costs. Those required to reduce capacity to 50 per cent, such as smaller retail stores, will receive a rebate payment equivalent to 50 per cent of their costs. A complete list of eligible businesses will be provided prior to the launch of the application portal.

"Small businesses are at the heart of every community across our province and make a tremendous contribution to Ontario's economy," said Nina Tangri, Associate Minister of Small Business and Red Tape Reduction. "Our government knows how important it is to support small business owners during such a difficult time. That's why throughout the pandemic, our government has supported small businesses and continues to do so through the new Ontario COVID-19 Small Business Relief Grant."

The government is also improving cash flows for Ontario businesses by providing up to \$7.5 billion through a six-month interest- and penalty-free period starting January 1, 2022 for Ontario businesses to make payments for most provincially administered taxes. This supports businesses now and provides the flexibility they will need for long-term planning. Building on Ontario's efforts to improve cash flows for businesses, the province continues to call on the federal government to match provincial tax deferral efforts by allowing small businesses impacted by public health restrictions to defer their HST remittances for a period of six months.

"Ontario's heritage, sport, tourism and culture industries have been hit first, hardest, and are expected to take the longest to recover from the pandemic," said Lisa MacLeod, Minister of Heritage, Sport, Tourism and Culture Industries. "These new supports are critical to protect sectors that contribute more than \$76 billion and hundreds of thousands of jobs in communities across the province."

These measures will build on Ontario's support for businesses and workers, including:

- <u>Cutting wholesale alcohol prices</u> to provide approximately \$60 million in annual support to restaurants, bars and other businesses, as well as making it easier for businesses to create and extend patios and permanently allowing licenced restaurants and bars to include alcohol with food as part of a takeout or delivery order.
- <u>Extending COVID-19 paid sick days</u> until July 31, 2022 to keep workers safe and ensure they do not lose pay if they need to miss work for reasons related to COVID-19.
- Enabling an estimated \$10.1 billion in cost savings and support to Ontario businesses in 2021, with more than 60 per cent, or \$6.3 billion, going to small businesses, including:
 - Supporting a reduction in Workplace Safety and Insurance Board premiums.
 - Allowing businesses to accelerate write-offs of capital investments for tax purposes.
 - Reducing the small business Corporate Income Tax rate to 3.2 per cent.
 - Providing the Digital Main Street program, which helped more than 20,000 businesses across the province to increase their digital presence in 2020-21.
 - Introducing and temporarily enhancing the Regional Opportunities Investment Tax Credit to encourage investments in certain regions of Ontario that have lagged in employment growth in the past.
 - Providing targeted COVID-19 support through the Ontario Tourism and Travel Small Business Support Grant.
 - Lowering high Business Education Tax rates for job creators.
 - Increasing the Employer Health Tax exemption from \$490,000 to \$1 million.
 - Lowering electricity bills through measures such as the Comprehensive Electricity Plan, with the Province paying for a portion of high-priced, non-hydro renewable energy contracts.
 - Providing targeted COVID-19 support through the Ontario Small Business Support Grant, which delivered \$3 billion in urgent and unprecedented support to over 110,000 small businesses across the province.

Quick Facts

- The government has temporarily moved the province back into <u>Step Two of its Roadmap to Reopen</u>, with modifications that take into account the province's successful vaccination efforts. These time-limited measures will help blunt transmission and prevent hospitals from becoming overwhelmed as the province continues to accelerate its booster dose rollout. They will be in place at least until January 26, 2022, subject to trends in public health and health system indicators.
- Launched in January 2021, the Ontario Small Business Support Grant provided direct financial support to eligible small businesses that were required to close or significantly restrict services under the Provincewide Shutdown that came into effect in December 2020.
- Businesses subject to 50 per cent capacity restrictions are not eligible for the new Ontario COVID-19 Small Business Relief Grant.
- The Ontario Business Costs Rebate Program provides eligible businesses that are required to close or reduce capacity with rebate payments for a portion of the property tax and energy costs they incur while subject to public health measures in response to the Omicron variant.

Additional Resources

- COVID-19 public health measures and advice
- Ontario Further Strengthening Response to Omicron
- All Ontarians 18+ Eligible for COVID-19 Booster Appointments at Three-Month Interval
- COVID-19: Help for businesses in Ontario
- Ontario.ca/COVIDsupport
- Business who have questions about public health and workplace safety measures can call the Stop the Spread Business Information Line at 1-888-444-3659.
- For public inquiries call ServiceOntario, INFOline at 1-866-532-3161 (Toll-free in Ontario only)

Media Contacts

Emily Hogeveen Minister's Office 647-294-6166 Emily.Hogeveen@ontario.ca

Scott Blodgett Communications Branch <u>416-728-9791</u> Scott.Blodgett@ontario.ca

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STATEMENT

Ontario Continues to Support Families and Businesses during COVID-19 Pandemic

Government focused on helping the people of Ontario weather the storm of Omicron while supporting workers and good-paying jobs

January 07, 2022 Economic Development, Job Creation and Trade

TORONTO – Vic Fedeli, Minister of Economic Development, Job Creation and Trade, issued the following statement following today's monthly employment release by Statistics Canada:

"Employment in Ontario increased by 46,900 in December, almost all of which are full-time jobs. Although today's numbers are good news, they are tempered by the reality of a new COVID-19 variant. Our priority remains to protect the health of Ontarians and our economy and we are taking action to protect both.

Our ambitious rollout of vaccines and booster shots has been working to keep families, communities, and workplaces as safe as possible. As of January 6, more than 4.4 million booster doses have been administered across the province.

As we continue to accelerate our provincial vaccine booster efforts, we are taking further action to slow the spread of the highly contagious Omicron variant to protect families and businesses and the progress we have made. In response to recent trends that show an alarming increase in COVID-19 hospitalizations, the Ontario government, in consultation with the Chief Medical Officer of Health, has temporarily moved the province into <u>Step Two of its Roadmap to Reopen with modifications</u> that take into account the province's successful vaccination efforts.

Our government continues to take an all-hands-on-deck approach and work directly with the business community to protect against increased spread of the virus. To increase the province's booster vaccination capacity, business groups and large corporations are stepping up, once again, to offer <u>employer-led vaccine clinics</u>. We're calling on Ontario businesses to learn more about the criteria for setting up an employer-led vaccine clinic to help protect our families and communities during this next wave.

For businesses that are most impacted by necessary public health measures or capacity limits due to Omicron, our government has introduced new financial supports to help them weather the storm.

Earlier this morning, as part of a comprehensive plan to support workers and businesses, our government announced an Ontario COVID-19 Small Business Relief Grant for small businesses that are subject to closure under the modified Step Two of the Roadmap to Reopen. It will provide eligible small businesses with a grant payment of \$10,000.

Eligible small businesses include:

- Restaurants and bars;
- Facilities for indoor sports and recreational fitness activities (including fitness centres and gyms);
- Performing arts and cinemas;
- Museums, galleries, aquariums, zoos, science centres, landmarks, historic sites, botanical gardens and similar attractions;
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- Driving instruction for individuals; and
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Ontario Continues to Support Families and Businesses during COVID-19 Pandemic | Ontario Newsroom

is less than half the cost of the current on-peak rate. The off-peak rate will apply automatically to residential, small businesses and farms who pay regulated rates set by the Ontario Energy Board and get a bill from a utility and will benefit customers on both Time-of-Use and Tiered rate plans.

Further, online applications for the previously-announced <u>Ontario Business Costs Rebate Program</u> will open on January 18. This program will provide eligible businesses that are required to close or reduce capacity with rebate payments for up to 100 per cent of the property tax and energy costs they incur while subject to public health measures in response to the Omicron variant.

Eligible businesses required to close for indoor activities, such as restaurants and gyms, will receive a rebate payment equivalent to 100 per cent of their costs. Those required to reduce capacity to 50 per cent, such as smaller retail stores, will receive a rebate payment equivalent to 50 per cent of their costs. A complete list of eligible businesses will be provided prior to the launch of the application portal.

These new programs build on previous business support programs, including the <u>Ontario Small Business Support Grant</u>, the <u>Property Tax and Energy Cost Rebates</u>, and the <u>Ontario Tourism and Travel Small Business Support Grant</u>.

We're also introducing a six-month interest- and penalty-free period to make payments for most provincially administered taxes, <u>cutting wholesale alcohol prices</u> to provide approximately \$60 million in annual support to restaurants, bars and other businesses, and <u>extending COVID-19 paid sick days</u> until July 31, 2022 to keep workers safe and ensure they do not lose pay if they need to miss work for reasons related to COVID-19.

Small businesses are the backbone of our economy. Ontario has provided an estimated \$10.1 billion in support to Ontario businesses in 2021, with more than 60 per cent, or \$6.3 billion, going to small businesses."

Related Topics

Business and Economy

Information about Ontario's economy and how to do business here. Includes economic development opportunities, research funding, tax credits for business and the Ontario Budget. <u>Learn more</u>

Jobs and Employment

We've got the resource and supports to help connect job seekers with employers. Learn more

Media Contacts

Rebecca Bozzato Minister Fedeli's Office rebecca.bozzato@ontario.ca

Kwok Wong Communications Branch Kwok.Wong@ontario.ca 647-504-2774

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https://news.ontario.ca/en/statement/1001402/ontario-continues-to-support-families-and-businesses-during-covid-19-pandemic

Ontario Renews Scholarships in Honour of Iran Plane Crash Victims

Continued scholarship funding acknowledges the memories of 57 Canadians lost

January 07, 2022 Colleges and Universities

TORONTO — In memory of the 57 Canadians involved in the 2020 fatal plane crash of Ukrainian International Airlines Flight PS752 in Iran, Ontario is renewing the scholarship fund created in their honour. Many of the victims were part of Ontario's postsecondary community, and as such, the fund will disburse additional scholarship funding of \$10,000 to 57 students, one in memory of each victim.

"Nearly two years have passed since this terrible tragedy, but I can still remember how incredibly shocked and saddened I was when I first received the news about Flight 752 – and I'm sure the families and loved ones of the victims still feel that devastating moment deeply," said Premier Ford. "I would like to extend my sincere condolences to those impacted by this tragedy and hope they find some small comfort in this continued scholarship funding that will honour the memories of those 57 Canadians we lost."

"I want to express my deepest sympathies to the families, friends and colleagues who lost someone during that terrible event," said Jill Dunlop, Minister of Colleges and Universities. "Many of the victims were students and professors at postsecondary institutions here in Ontario, and as such, our community was particularly shaken. We can never replace the loss of so many bright and promising scholars, educators – and above all – loved ones, but we hope to honour their memories through the continuation of this scholarship fund."

The Ontario postsecondary institutions who lost students or faculty in the fatal plane crash included: Carleton University, Centennial College, Fleming College, George Brown College, Lambton College, McMaster University, Queen's University, Ontario Tech University (formerly UOIT), the University of Guelph, the University of Ottawa, the University of Toronto, the University of Waterloo, Western University, the University of Windsor, and York University.

"I distinctly remember how this devastating event resonated across Canada, particularly within our strong Iranian community," said Goldie Ghamari, Parliamentary Assistant to the Minister of Colleges and Universities. "It is with great sympathy that we continue to grieve the loss of so many talented students, faculty and other victims – and I hope this scholarship fund pays tribute in a small way."

"Although we can't bring back the 57 Canadians that were lost on January 8, 2020, we continue to mourn their loss and remember all they have done for our communities," said Michael Parsa, MPP for Aurora—Oak Ridges—Richmond Hill. "I hope Ontarians across the province take a moment to reflect on the impact this tragic event continues to have on our country and to keep their families and loved ones in our thoughts."

Criteria for the original scholarships was based on academic merit and financial need, and was determined in consultation with Ontario's colleges and universities, as well as with the families of the victims. The original scholarships were allocated in honour of each of the 34 victims to the institutions to which they belonged, with the remainder allocated to other eligible institutions based on a competitive process. The renewed scholarship funding will be allocated by these same institutions to recipients in 2022.

Quick Facts

- On January 8, 2020, a Ukrainian airliner crashed near Tehran, Iran, killing 176 passengers, including 57 Canadians, several of whom studied or taught at postsecondary institutions in Ontario.
- 57 scholarships were disbursed in 2021 in honour of each of the Canadians who lost their lives in the Iran plane crash.
- With this new funding, scholarships of \$10,000 will be awarded by the same colleges and universities that disbursed them in 2021.

Related Topics

Education and Training

Learn about Ontario's early years, education and training systems. Includes information on child care, elementary schools, secondary schools, colleges, universities, skills training and financial aid. <u>Learn more</u>

Media Contacts

Bethany Osborne Minister's Office Bethany.Osborne2@ontario.ca

James Tinajero Communications Branch <u>416-325-2746</u>

Public Inquiries

<u>416-325-2929</u>

TTY <u>1-800-268-7095</u>

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https://news.ontario.ca/en/release/1001401/ontario-renews-scholarships-in-honour-of-iran-plane-crash-victims

STATEMENT

Ontario Takes Action to Support Staffing Access in Schools

Expanded Access to Retired Teachers to Support In-person Learning

January 10, 2022 Education

TORONTO — Today, Stephen Lecce, Minister of Education, issued the following statement on Ontario's agreement with the Ontario Teachers' Federation (OTF) to nearly double the number of days a retiree can work:

"We are seeing staff shortages impacting all sectors of the economy. Well before Omicron came to Ontario, school boards were reporting high rates of absenteeism from education staff. We need staff in order to continue providing live teacher-led remote learning and safely operate our schools when students return to in-person learning. That is why we have now secured an agreement with the Ontario Teachers' Federation that will deliver access to thousands of teacher-qualified educators that will help keep schools open and safe.

This is being done as we continue to make the teaching and learning environment as safe as possible. We went above public health requirements and are providing non-fitted N95 masks as an optional alternative for all staff, accelerated access to booster shots for education and child care staff, and are supporting school-focused vaccination clinics, and continue to make ventilation improvements in schools across Ontario. These measures are both part of our proactive planning to limit learning disruptions during the COVID-19 pandemic.

To support school safety, Ontario has invested \$304 million which is projected to support the hiring of over 2,000 staff – while expanding access to second-year teacher candidates and nearly doubling the number of days retired teachers can work within our schools. Together, these actions will provide unprecedented access to more teacher-qualified educators and staff to keep students safe and learning.

Through enhanced ventilation and masking, more funding to hire additional staff, and new access to thousands of retired educators, we are helping to stabilize the workforce to ensure students receive the mental, physical, and academic benefits to support their learning."

BACKGROUND

- At present, multiple school boards are realizing staffing shortfalls. The projected shortfall in occasional teachers is anticipated to be 7,000 across all school boards, as reported by school boards in the Fall of 2021:
 - Almost 40 per cent of school boards are reporting that up to 25 per cent of their teacher absences were unfilled by an occasional teacher.
 - Almost 20 per cent of school boards are reporting that up to 50 per cent of their teacher absences were unfilled by an occasional teacher.
 - 55 per cent of school boards reported that they had to use temporary Ontario College of Teachers (OCT) certificates to address staffing shortages.
- Under the Ontario government's agreement with the OTF, there will be a temporary increase in the number of days retired teachers can be re-employed in the publicly funded school system from 50 days to 95.
- The agreement with the OTF, co-sponsor of the Ontario Teachers' Pension Plan (OTPP), will temporarily increase the number of days retired teachers, principals, and vice principals are able to work, and will be in effect until June 30, 2022.
- Schools have been made safer for in-person learning thanks to \$1.6 billion in resources for the current school year, ventilation improvements in schools across Ontario, including the deployment of 70,000 HEPA filter units and other ventilation devices, and stringent health and safety requirements. The government is building on these measures with even further investments in air ventilation, greater access to high-quality masks for teachers and students, and stronger screening measures.

Ontario Continues to Add Hospital Beds and Build Up Health Workforce

Province Expanding Opportunities for Internationally Educated Nurses to Support Pandemic Response

January 11, 2022 <u>Health</u>

TORONTO — The Ontario government is continuing to accelerate its efforts to add hospital beds and build up the province's health care workforce to ensure patients can continue to access the health care they need when they need it.

The province is collaborating with Ontario Health (OH) and the College of Nurses of Ontario (CNO) on initiatives to deploy internationally educated nurses to hospitals and other health care settings in need of staffing support to work as part of a team under the supervision of a regulated health care provider, such as a registered nurse or doctor. More than 1,200 internationally educated CNO applicants have expressed interest in participating in these initiatives so far and matching with health-care providers is expected to begin later this week, with onboarding new staff in the weeks ahead.

"Since the start of the COVID-19 pandemic, Ontario's hospitals and health care providers have worked tirelessly to protect the health and safety of patients," said Christine Elliott, Deputy Premier and Minister of Health. "Our government has continued to make critical investments in our hospital and health workforce to ensure no resource goes untapped so that our hospitals have the staffing and resources they need to care for patients during this challenging time."

Expanding opportunities for internationally educated nurses is one more way Ontario is increasing the health care workforce. Since March 2020, the government has launched emergency programs that have already added over 6,700 health care professionals to the system, including acute care settings, long-term care homes and home and community care settings that help to preserve hospital capacity. These programs will also provide hospitals with the capacity to add another 6,000 additional providers to high-need hospitals to support staffing pressures due to COVID-19 by March 31, 2022, including the deployment of nursing students and other health care providers-in-training.

Ontario has also built unprecedented hospital capacity since the start of the pandemic, including \$5.1 billion to add 3,100 beds across the province for a total of approximately 17,000 medical and surgical beds. Through additional investments, the province now has a total of 2,436 adult and paediatric ICU beds. Approximately 600 ICU beds remain available today, with the ability to add nearly 500 additional beds if required.

"More than ever, this wave of the pandemic will require us to work as a system, ensuring we utilize all of our provincial resources to meet the needs of patients," said Matthew Anderson, President and CEO of Ontario Health. "We are working closely with hospital and health care partners to maintain and protect capacity across the system."

These ongoing initiatives build on the government's commitment as part of the 2021 Ontario Economic Outlook and Fiscal

<u>Review: Build Ontario</u> to invest \$342 million over the next five years through immediate and longer-term recruitment initiatives which would add over 13,000 workers to Ontario's health care system. This includes over 5,000 new and upskilled registered nurses and registered practical nurses as well as 8,000 personal support workers.

"The pandemic has highlighted the need for more staff on the front lines of our health care system," said Peter Bethlenfalvy, Minister of Finance. "Our government committed to spare no expense in the fight against the pandemic to protect people's health and the economy, which is why investing in the front lines of our health care system was one of the key pillars of our plan to Build Ontario."

Quick Facts

• The <u>2021 Ontario Economic Outlook and Fiscal Review: Build Ontario</u> is the government's seventh financial update since the pandemic began, highlighting the government's commitment to providing regular updates on Ontario's finances,

Ontario Continues to Add Hospital Beds and Build Up Health Workforce | Ontario Newsroom

even during this uncertain economic period. It is part of the government's plan for recovery driven by economic growth.

- In response to recent trends that show an rapid increase in COVID-19 hospitalizations, the government, in consultation with the Chief Medical Officer of Health, has temporarily moved the province into <u>Step Two of its Roadmap to Reopen</u> with modifications that take into account the province's successful vaccination efforts.
- In 2020, there were 20,678 internationally educated nurses registered and eligible to practice in Ontario. This represented 12.2% of Ontario's nursing workforce in 2020, up from 10.3% of in 2010.
- The province has also reinstated Directive #2 for hospitals and regulated health professionals, which instructs them to temporarily pause all non-emergent and non-urgent surgeries and procedures in order to preserve critical care and human resource capacity. While this was not an easy decision, this time-limited measure will help preserve and increase hospital bed capacity by making between 1,200 to 1,500 acute/post-acute beds available as needed.
- To date, over 5,100 Ontarians have registered through the <u>Ontario COVID-19 Volunteer Portal</u> and <u>the Health Workforce</u> <u>Matching Portal</u> and have answered the province's call to arms to businesses, volunteers and retired health professionals to help further boost capacity to administer vaccines and get more boosters into arms sooner. This includes over 1,900 regulated health professionals (active license and retired), firefighters, first responders, and health professionals in training that have been sent for immunizer training to support the province's vaccine effort.

Additional Resources

- Ontario Temporarily Moving to Modified Step Two of the Roadmap to Reopen
- Building Ontario
- Economic and Fiscal Overview
- 2021 Ontario Economic Outlook and Fiscal Review: Build Ontario
- Ontario Expanding Mental Health and Addictions Supports for Frontline Health Care Workers

Related Topics

Government

Learn about the government services available to you and how government works. Learn more

Health and Wellness

Get help navigating Ontario's health care system and connecting with the programs or services you're looking for. Learn more

Media Contacts

Alexandra Hilkene Minister Elliott's Office alexandra.hilkene@ontario.ca

Anna Miller Communications Division <u>media.moh@ontario.ca</u> <u>416-314-6197</u>

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Ontario Launching School-based Vaccine Clinics as Students Return to In-person Learning

Additional Protections Include Expanded Rapid Antigen Testing and High-Quality Masks for Staff and Students

January 12, 2022 Education

TORONTO — With elementary and high school students returning to in-person learning on January 17, Stephen Lecce, Minister of Education, was joined by Dr. Kieran Moore, Ontario's Chief Medical Officer of Health to announce the launch of school-based vaccine clinics for youth and staff, along with a significant deployment of rapid antigen tests. These new measures build on the province providing millions of high-quality masks for staff and students and thousands more HEPA filtration units.

"We are meeting the unique challenges presented by the Omicron variant head-on as we do everything we can to support inperson learning," said Minister Lecce. "Our government is taking nothing for granted, which is why we are launching schoolbased vaccination clinics, distributing millions of rapid antigen tests and have deployed non-fit-tested N95 masks to staff and three-ply masks to students."

Vaccination is the province's best defence against the highly transmissible Omicron variant. Current vaccination rates among children aged 12 to 17 years old are encouraging with more than 82 per cent having received two doses. Of children aged five to 11 years old, nearly 50 percent have received their first dose of a COVID-19 vaccine, but more can be done to encourage and support vaccination, which is why Ontario will launch school-based vaccine clinics when students return to in-person learning. To further encourage voluntary vaccination for children aged 5 to 11, the government has asked school boards to work with local Public Health Units (PHUs) to add school-day vaccination clinics for students (i.e. during instructional hours). School boards are also expected to work with local PHUs and share documents and other information with families, such as resources available at https://covid-19.vaccines-children-and-youth.

In the coming days, parents will receive a form offering the opportunity to safely and conveniently provide public health units the authority to vaccinate their child at a school-based vaccine clinic.

To help stabilize workforce and student participation, beginning the week of January 17, the Ontario government will also provide rapid antigen tests for students and staff in public elementary and secondary schools, along with children and staff in child care settings. Over 3.9 million rapid antigen tests are being shipped to school boards this week, with additional tests to be delivered next week. The use of the tests is for symptomatic individuals, who will be required to take two rapid tests 24 hours apart, and upon negative results can return to class.

Additional measures in place to prepare for the return to in-person learning include the following:

- **High-Quality Masks:** Providing access to more than 10 million non-fit-tested N95 masks to all education and child care staff the only province to do so with more than four million three-ply cloth masks for students recently shipped for use in schools.
- Improved Ventilation: Deploying an additional 3,000 standalone HEPA filter units to learning environments, building on the ventilation improvement measures already in place at every school across Ontario, including the more than 70,000 HEPA filter units and other ventilation devices that have been provided and mechanical ventilation upgrades.
- Stricter Screening: Updated and stricter screening requirements for students and staff, including daily onsite confirmation of screening.
- **Historic Funding**: School board access to \$1.6 billion in resources to protect against COVID-19, including supports for mental health, technology, over 2,350 additional staff and ventilation.
- Access to Additional Educators: Access to retired educators for a longer period of time following a recent agreement with the Ontario Teachers' Federation, and access to first year teacher candidates who are deemed eligible.

Ontario Launching School-based Vaccine Clinics as Students Return to In-person Learning | Ontario Newsroom

• Enhanced Cohorting and Cleaning: New time-limited cohorting protocols to limit direct and indirect contacts by pausing high-contact extra curricular sports, stricter lunch cohort requirements, and elevated cleaning requirements at all schools.

To further support staffing stability and reduce disruption for students, families, and education and child care staff, the government is further expanding access to vaccines by:

- Supporting a mass vaccination clinic at the International Centre with dedicated times for education and child care staff
- Opening 10 vaccination clinics across the Greater Toronto and Hamilton Area that offer dedicated time slots for education and child care staff
- Encouraging public health units to support accelerated access to boosters.

More than five million Ontarians have already received a booster shot and the above vaccination options are in addition to those also being offered locally by public health units across the province.

With these measures in place, including new testing options and expanded access to vaccination, and continuous improvement to ventilation, the Ontario government is supporting access to in-person learning with greater stability for students and families. Remote learning will remain an option for those families wishing to access it.

"In-person learning is critical to the mental health and well-being of our children and youth," said Dr. Moore. "In light of the unique challenges posed by the Omicron variant, my team and I will continue to work with the education sector to review all of our guidelines and all environmental, health, cleaning, and ventilation standards to ensure our schools remain as safe as possible for all."

Quick Facts

- Reopening schools is supported by the Chief Medical Officer of Health, local Medical Officers of Health, and the Children's Health Coalition, representing Ontario's pediatric hospitals, children's mental health agencies and children's rehabilitation centres. New interim guidance has been issued for PHUs - <u>COVID-19: Interim Guidance for Schools and Child Care: Omicron Surge</u>.
- In 2021-22, <u>Ontario will continue to provide temporary COVID-19 supports</u> of more than \$1.6 billion to school boards throughout the year. This will provide schools with a wide range of supports, including for student mental health, the hiring of additional staff, up to 625 additional school-focused nurses in public health units, providing school communities with ongoing support for infection prevention and control, remote learning technology, and health and safety measures in student transportation.
- Parents and caregivers who have questions about COVID-19 vaccines for children and youth can visit <u>COVID-19 Vaccine</u> <u>Consult Service (sickkids.ca)</u> to book a confidential phone appointment with a SickKids clinician.
- The Ontario government is allocating significant investments to Ontario schools, including \$600 million in net new investments for school ventilation, \$1.4 billion to renew and maintain existing schools and \$14 billion over ten years for new schools, additions, and major renovations.
- Ontario is also making available <u>\$85.5 million for learning recovery and renewal</u> to help schools across the province mitigate the effects of learning disruptions as a result of COVID-19. This investment will support student mental health and well-being, reading and math for young learners, and student re-engagement.
- School boards are being requested to collect information on COVID-19 booster dose coverage for individuals subject to school board immunization disclosure policies, as directed by the Chief Medical Officer of Health.

Additional Resources

Ontario Government Increasing Resources and Investments to Support Return to In-person Learning

COVID-19 in Ontario

Media Contacts

Caitlin Clark

Minister's Office

caitlin.clark@ontario.ca

Ontario Launches Virtual 2022 Budget Consultations

People invited to submit their ideas to help attract investment, build Ontario

January 14, 2022 **Finance**

TORONTO — Today, Minister of Finance Peter Bethlenfalvy announced the launch of 2022 Budget consultations and encouraged Ontarians to share their ideas for making Ontario the best place to build a career, a family and a future.

Throughout the COVID-19 pandemic, the government engaged people and businesses in a series of consultations to help inform the Province's ongoing response to fight this virus. This is a critical time for the government to protect Ontario's progress against COVID-19 and, more specifically, the newer threat posed by Omicron. The government will continue its conversations with the people of this province by asking them what they want to see in the 2022 Budget.

"It is clear that while the COVID-19 pandemic is not over yet, our government will continue to make decisions that will lay a strong, stable fiscal foundation that Ontario workers, families and entrepreneurs can build on," said Peter Bethlenfalvy, Minister of Finance. "We are looking for ideas that will help us continue to build Ontario's long-term prosperity and create jobs, while supporting workers and communities in every corner of our province."

People and organizations are welcome to share their ideas via an online survey, emailed or mailed submissions to the Ministry of Finance, or through a series of virtual consultations across the province that begin Monday, January 17.

Visit Ontario.ca/budgetconsultations to learn how to submit your ideas by email, mail, or by filling out a survey. The 2022 Budget consultations will close on February 11, 2022.

The 2022 Budget will be delivered by March 31, 2022.

Quick Facts

- People can participate in this year's Budget consultations by:
 - Sharing ideas online by participating in the <u>online survey</u>.
 - Emailing written submissions to <u>submissions@ontario.ca</u>
 - Mailing submissions to the Minister of Finance
 - Attending a virtual consultation session

Additional Resources

- Learn more about the <u>2021 Ontario Economic Outlook and Fiscal Review: Build Ontario</u>.
- Visit Ontario's <u>website</u> to learn more about how the province continues to protect people from COVID-19.

Media Contacts

Emily Hogeveen Minister's Office 647-294-6166 Emily.Hogeveen@ontario.ca

Scott Blodgett

Communications Branch

416-728-9791

Scott.Blodgett@ontario.ca

Ontario Cuts Electricity Rates to Help Workers, Families and Small Businesses

Off-peak rates provide immediate savings as Ontarians spend more time at home while public health measures are in place

January 18, 2022 Energy

TORONTO – The Ontario government is providing 21 days of electricity-rate relief to support families and workers spending more time at home, as well as small businesses, consistent with the length of time the province is in modified Step Two public health measures. As of 12:01 AM today electricity prices are lowered to the off-peak rate of 8.2 cents per kilowatt-hour -- less than half the on-peak rate -- 24 hours per day.

"Effective today, families and small businesses will benefit from 21 days of electricity rate relief as our government implements the off-peak rate," said Todd Smith, Minister of Energy. "The off-peak rate, which is less than half the on-peak rate, will provide immediate savings as Ontarians spend more time at home and work together to slow the spread of the Omicron variant."

Electricity customers won't have to do anything to benefit from the rate cut, it will be applied automatically to both Time-of-Use and Tiered rate plans on the bills of residential customers, small businesses and farms who pay regulated rates set by the Ontario Energy Board (OEB).

Implementation of the off-peak rate builds on existing programs introduced by government to reduce electricity prices including the <u>Ontario Electricity Rebate</u> (OER), which provides a 17 per cent rebate on the subtotal of the electricity bill of eligible customers including households, small businesses and farms. Eligible customers will continue to benefit from the OER while off-peak pricing is in place.

"We extend our thanks to Local Distribution Companies, as well as the Ontario Energy Board who have worked quickly to ensure the off-peak rate is applied automatically to bills, providing a seamless experience for both Time-of-Use and Tiered customers, " said Minister Smith.

Quick Facts

- The government has temporarily moved the province back into <u>Step Two of its Roadmap to Reopen</u>, with modifications that take into account the province's successful vaccination efforts. These time-limited measures will help blunt transmission and prevent hospitals from becoming overwhelmed as the province continues to accelerate its booster dose rollout. They will be in place at least until January 26, 2022, subject to trends in public health and health system indicators.
- The <u>Ontario Business Costs Rebate Program</u> provides eligible businesses that are required to close or reduce capacity with rebate payments for a portion of the property tax and energy costs they incur while subject to public health measures in response to the Omicron variant.
- The government is further supporting the health and safety of Ontarians during this difficult time by ensuring that natural gas and electricity utilities disconnection bans reman in place until April 30, 2022.
- The Low-Income Energy Assistance Program (LEAP) is also available to Ontarians struggling with their energy bills. LEAP provides a one-time grant towards electricity or natural gas bills to eligible consumers who are behind on payments. To supply additional relief the OEB recently increased the grant amount so eligible consumers can now get **up to \$1000** for their electricity bills (**\$1200** if their home is electrically heated) and **\$1000** for their natural gas bills.

Additional Resources

Find programs to reduce your electricity bill

Related Topics

Business and Economy

Information about Ontario's economy and how to do business here. Includes economic development opportunities, research funding, tax credits for business and the Ontario Budget. <u>Learn more</u>

Environment and Energy

Learn more about how Ontario protects and restores wildlife and the environment. Includes information on conservation and the electricity system. <u>Learn more</u>

Media Contacts

Palmer Lockridge Minister's Office palmer.lockridge@ontario.ca

Natasha Demetriades Communications Branch natasha.demetriades@ontario.ca 416-327-3855

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https://news.ontario.ca/en/release/1001430/ontario-cuts-electricity-rates-to-help-workers-families-and-small-businesses

Applications Now Open for Ontario Business Costs Rebate Program

Government supporting eligible businesses with property tax and energy costs

January 18, 2022 <u>Finance</u> <u>Government and Consumer Services</u> <u>Economic Development, Job Creation and Trade</u> <u>Energy</u>

TORONTO — Eligible businesses required to close or reduce capacity due to the current public health measures put in place to blunt the spread of the Omicron variant of COVID-19 can <u>apply</u> for the new <u>Ontario Business Costs Rebate Program</u> starting today. Through the new program, the government will provide eligible businesses with a rebate payment of up to 100 per cent for property tax and energy costs they incur while subject to these restrictions.

"We recognize that these necessary public health measures are impacting businesses, and as we have been since the beginning of the pandemic, we are there to support them," said Peter Bethlenfalvy, Minister of Finance. "With the opening of applications for this new rebate program, our government is putting money directly into the hands of impacted businesses during this critical time."

Eligible businesses required to close for indoor activities, such as restaurants and gyms, will receive a rebate payment equivalent to 100 per cent of their costs. Those required to reduce capacity to 50 per cent, such as smaller retail stores, will receive a rebate payment equivalent to 50 per cent of their costs.

Businesses will be required to submit proof of costs associated with property tax and energy bills as part of the application process. All eligible businesses must submit an application to be considered, including those that received previous COVID-19 support payments. To learn more, including to find a full list of eligible businesses, visit the online application portal <u>here</u>.

"We recognize that these are challenging times for Ontario's businesses," said Todd Smith, Minister of Energy. "We are committed to supporting businesses most impacted by the public health measures and this rebate program will provide them with the much needed support on their energy bills."

"We are prepared to deliver these critical supports to Ontario businesses quickly and seamlessly to ensure they can navigate through these extremely challenging times," said Ross Romano, Minister of Government and Consumer Services. "This new program will provide substantial relief for many businesses so that they can continue to support our communities as we work together to overcome COVID-19 and its variants."

The government is also improving cash flows for Ontario businesses by making up to \$7.5 billion available through a sixmonth interest- and penalty-free period for Ontario businesses to make payments for most provincially administered taxes.

This penalty and interest-free period started on January 1, 2022. This supports businesses now and provides the flexibility they will need for long-term planning.

The government is also introducing a new COVID-19 Small Business Relief Grant that will give businesses subject to closure under the modified Step Two of the Roadmap to Reopen a \$10,000 grant. The money will flow to eligible businesses in February.

The government's new Ontario COVID-19 Small Business Relief Grant will also help eligible small businesses that are subject to closures under the modified <u>Step Two of the Roadmap to Reopen</u> by providing eligible small businesses with a grant payment of \$10,000. Eligible businesses that qualified for the Ontario Small Business Support Grant and that are subject to closure under modified Step Two of the Roadmap to Reopen will be pre-screened to verify eligibility and may need to provide some additional information but will not need to apply to the new program. Newly established and newly eligible small businesses will need to apply once the application portal opens in the coming weeks. Small businesses that qualify can expect to receive their payment beginning in February.

"Small businesses play a vital role in Ontario's diverse economy," said Vic Fedeli, Minister of Economic Development, Job Creation and Trade. "Through the Ontario Business Costs Rebate Program and other vital support programs like the new Ontario COVID-19 Small Business Relief Grant, our government will continue to provide thousands of small businesses with the financial relief they need."

Quick Facts

- The government has temporarily moved the province back into <u>Step Two of its Roadmap to Reopen</u>, with modifications that take into account the province's successful vaccination efforts. These time-limited measures will help blunt transmission and prevent hospitals from becoming overwhelmed as the province continues to accelerate its booster dose rollout. They will be in place at least until January 26, 2022, subject to trends in public health and health system indicators.
- The Ontario Business Costs Rebate Program will build on Ontario's support for businesses and workers, including:
 - <u>Cutting wholesale alcohol prices</u> to provide approximately \$60 million in annual support to restaurants, bars and other businesses, as well as making it easier for businesses to create and extend patios and permanently allowing licenced restaurants and bars to include alcohol with food as part of a takeout or delivery order.
 - Extending COVID-19 paid sick days until July 31, 2022 to keep workers safe and ensure they do not lose pay if they need to miss work for reasons related to COVID-19.
 - Enabling an estimated \$10.1 billion in cost savings and support to Ontario businesses in 2021, with more than 60 per cent, or \$6.3 billion, going to small businesses, including:
 - Supporting a reduction in Workplace Safety and Insurance Board premiums.
 - Allowing businesses to accelerate write-offs of capital investments for tax purposes.
 - Reducing the small business Corporate Income Tax rate to 3.2 per cent.
 - Providing the Digital Main Street program, which helped more than 20,000 businesses across the province to increase their digital presence in 2020-21.
 - Introducing and temporarily enhancing the Regional Opportunities Investment Tax Credit to encourage investments in certain regions of Ontario that have lagged in employment growth in the past.
 - Providing targeted COVID-19 support through the Ontario Tourism and Travel Small Business Support Grant.
 - Lowering high Business Education Tax rates for job creators.
 - Increasing the Employer Health Tax exemption from \$490,000 to \$1 million.
 - Providing targeted COVID-19 support through the Ontario Small Business Support Grant, which delivered \$3 billion in urgent and unprecedented support to over 110,000 small businesses across the province.
 - Providing eligible businesses with 100 per cent of their reported property tax and energy bills through the Property Tax and Energy Cost Rebates Program.

Additional Resources

- <u>Application portal</u>
- <u>Businesses: Get help with COVID-19 costs</u>
- <u>COVID-19 public health measures and advice</u>
- Ontario Further Strengthening Response to Omicron
- <u>All Ontarians 18+ Eligible for COVID-19 Booster Appointments at Three-Month Interval</u>
- <u>COVID-19: Help for businesses in Ontario</u>
- Business who have questions about public health and workplace safety measures can call the Stop the Spread Business Information Line at 1-888-444-3659.
- For public inquiries call ServiceOntario at 1-855-216-3090 (Toll-free in Ontario only)

Media Contacts

Emily Hogeveen Minister's Office 647-294-6166

Emily.Hogeveen@ontario.ca

Scott Blodgett **Communications Branch**

416-728-9791

Governments Increasing Veterinarian Capacity for Ontario Farms

\$4 Million Investment to Help Farmers Access Veterinary Care

January 19, 2022 Agriculture, Food and Rural Affairs

BLYTH – The governments of Canada and Ontario are investing up to \$4 million dollars through the Canadian Agricultural Partnership (the Partnership) to help give farmers improved access to veterinary services when and where they need it.

The Livestock Veterinary Innovation Initiative is a new, cost-share program that will increase the access options for veterinary care, especially in rural and northern Ontario, to better support animal health, the livestock agri-food sector and the strength of the province's food supply.

In consultation with farmers and stakeholders in the veterinary sector, this investment focuses on improving virtual care options, expanding telemedicine access and addressing issues with mobile clinics to address current challenges, such as long distances between farmers and animal heath care providers and the shortage of food-animal veterinarians working in underserviced areas.

Examples of projects eligible for support under this initiative include:

- Equipment to help veterinary practices deliver enhanced virtual care, diagnostic work and tele-medical support for farms.
- Portable, specialized, livestock handling equipment to help veterinary practices or farms manage animals while receiving care; and
- Training for veterinary professionals to help them use new equipment, techniques or deliver more efficient and accessible support to livestock farmers.

"Canadian farmers take great care of their animals. It is essential that they have easy access to veterinary services, no matter where their farm is located," said the Honourable Marie-Claude Bibeau, federal Minister of Agriculture and Agri-Food. "Our investments will accelerate the implementation of innovative animal health solutions, such as telemedicine, to increase access to veterinary care throughout Ontario."

"We know farmers need reliable and timely access to veterinary services to keep their animals healthy and to grow their businesses," said Lisa Thompson, provincial Minister of Agriculture, Food and Rural Affairs. "This investment will help farmers protect the welfare of livestock animals and add to our government's efforts to strengthen access to the high-quality foods our farmers produce."

Eligible applicants can receive up to 35 per cent cost share for eligible expenses province-wide and up to 50 per cent costshare in areas that have been identified as underserviced in terms of available veterinary capacity. Maximum funding amounts differ by project category.

Veterinary businesses can apply for support through this initiative starting February 15, 2022 to March 31, 2022.

Since June 2018, both the federal and provincial governments have committed over \$100 million in support to more than 5,000 projects through the Canadian Agricultural Partnership. This funding will help eligible Ontario farmers, processors, businesses and sector organizations the ability to innovate and grow.

Quick Facts

• The Partnership is a five-year, \$3-billion commitment by Canada's federal, provincial and territorial governments that supports Canada's agri-food and agri-products sectors. This includes a \$2 billion commitment that is cost-shared 60 per

Governments Increasing Veterinarian Capacity for Ontario Farms | Ontario Newsroom

cent federally and 40 per cent provincially/territorially for programs that are designed and delivered by provinces and territories.

- Applications for the Livestock Veterinary Innovation Initiative will be accepted starting on February 15, 2022 until March 31, 2022.
- Approved projects must be completed by Sept. 30, 2022.
- In 2020, the Ontario agri-food sector supported more than 720,000 jobs in Ontario and contributed \$46.3 billion to the provincial economy.

Quotes

"There are many complicated issues facing veterinarians and the provision of veterinary care to Ontario's producers, including the challenge of increased demand for services amid persistent labour shortages. OVMA is encouraged that the Livestock Veterinary Innovation Initiative begins to address some of these obstacles to help ensure that Ontario's food supply is secure, and to support the crucial role of veterinarians in ensuring that. As they have since the pandemic began nearly two years ago, veterinarians across Ontario have been working tirelessly to serve their clients and ensure the safety of our food supply during unprecedented times."

> - John Stevens Chief Executive Officer, Ontario Veterinary Medical Association

"It is a tremendous concern for an animal owner when they are unable to access veterinary services. In particular, this is an ongoing challenge for livestock producers in rural and northern Ontario. The Livestock Veterinary Innovation Initiative provides veterinarians with an option to enhance their access to the tools and educational resources that are needed to support the availability of veterinary medicine in underserviced areas. The College welcomes this innovative program as a step forward in the modernization of the delivery of veterinary medicine in Ontario."

- Lorie Gold President, College of Veterinarians of Ontario

"This initiative is an opportunity to address the long-standing challenges with access to veterinary care for farmers and food animal producers across Ontario. Support for technology, training and equipment will help enable better utilization of Registered Veterinary Technicians (RVTs) in the delivery of timely animal health care."

- Elise Wickett Executive Director & Registrar, Ontario Association of Veterinary Technicians

"By addressing the challenges faced by rural and remote veterinarians, farmers will have improved access to the essential veterinary services they require to keep their livestock healthy. This important initiative will ensure a strong

livestock sector and have a positive impact across the agri-food supply chain."

- Doug Alexander Chair, Agricultural Adaptation Council

Additional Resources

The Canadian Agricultural Partnership in Ontario

Agriculture and Agri-Food Canada

Ontario Ministry of Agriculture, Food and Rural Affairs

https://news.ontario.ca/en/release/1001439/governments-increasing-veterinarian-capacity-for-ontario-farms

Related Topics

Rural and North

Information about the province's Far North and rural communities. Get connected to business improvement organizations and learn more about funding and programs that support rural, northern and Indigenous communities. <u>Learn more</u>

Media Contacts

Jack Sullivan Minister's Office jack.sullivan@ontario.ca

Belinda Sutton Communications Branch omafra.media@ontario.ca (519) 400-6394

Marianne Dandurand

Press Secretary, Office of the Minister of Agriculture and Agri-Food Agriculture and Agri-Food Canada <u>Marianne.dandurand@agr.ca.ca</u> 343-541-9229

Media Relations Agriculture and Agri-Food Canada Ottawa, Ontario 613-773-7972 1-866-345-7972 aafc.mediarelations-relationsmedias.aac@agr.gc.ca

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Total

Renfrew County and District Health Unit

COVID-19 Case Summary

January 13, 2022

	JC	11001y 10, 2022	
Total Confirmed Cases inRenfrew County and District (RCD):2189(466 cases have confirmed variant ofconcern (VOC) lineage or have screenedpositive for a VOC)Cases Reported in the Last 7 Days:		Current Status of Cases in RCD Self-Isolation: 495 Hospitalized: 14 Hospitalized in Intensive Care Unit: 0	
319 Incidence Rateª in the Last 7 D 293.7 per 100,000 individua	-	ys: Deceased: 16	
Outbreak Setting	Cui	mulative Number of Outbreaks	Active Number of Outbreaks
Community		7	0
Hospital	4		1
Long-Term Care Home/ Retirement Home/Congregate Living		22	7
School (all levels)	16		0
Workplace	15		0

Total Number of tests completed for RCD residents: 132,628 Percent Positivity^b of tests completed for RCD residents (December 30, 2021-January 05, 2022)

8

22.1%

RCDHU has responded to 56,183 COVID-19 inquiries from residents and community partners since March 18, 2020.

64

 Incidence rate is calculated by dividing the total number of confirmed cases in a 7-day period by the population size, and then multiplying by 100,000. It takes into account the size of the population, and can be compared to other regions. It's trend (increasing or decreasing) suggests the trajectory of transmission within a region. Data source: Population Projection of Renfrew County and District Health Unit [2020], Ontario Ministry of Health, IntelliHEALTH Ontario

^b Percent positivity is calculated by dividing the number of tests with a positive result by the total number of tests processed during the same time frame, and then multiplying by 100. A higher percent positivity suggests higher community transmission and that there are likely more people with COVID-19 in the community who haven't been tested yet. Data source: Ontario Ministry of Health, Ontario Laboratory Information System (OLIS), Visual Analytics Hub.



Renfrew County and District Health Unit "Optimal Health for All in Renfrew County and District"

For Immediate Release

(Pembroke, Ontario, 4:10 p.m., January 10, 2022)

Renfrew County Residents Are Reminded That Emergency Departments Are for Urgent Care, Not Asymptomatic COVID-19 Testing or The Treatment of Mild COVID-19 Symptoms

With increased community transmission of COVID-19 and in particular, the new Omicron variant of concern, Renfrew County hospitals are also seeing an increase in the number of asymptomatic residents presenting at local Emergency Departments for a COVID-19 test or for the treatment of mild cold-like symptoms which are likely an indication they have the virus.

While all Emergency Departments remain open and available to treat those in need of urgent care, Dr. Robert Cushman, Acting Medical Officer of Health is reminding residents that Emergency Departments are not the place for asymptomatic testing, or the treatment of mild symptoms presumed to be affiliated with the virus.

In fact, according to the new provincial COVID-19 testing guidance which came into effect December 31, 2021, PCR testing eligibility has been greatly reduced. Highlights of the new guidance include the following:

- Symptomatic testing is available for high-risk individuals, and individuals who work in high-risk settings.
- Individuals with symptoms consistent with COVID-19 are now presumed positive and should follow isolation and/or self-monitoring guidelines.
- Testing for asymptomatic contacts of cases is generally no longer recommended unless directed by Public Health.
- Positive rapid antigen tests no longer require PCR confirmation. Individuals who now test positive using a rapid antigen test must follow isolation guidelines.

"We recognize that there is a certain amount of stress and anxiety that comes from seeing increased transmission in our communities and that asymptomatic individuals want reassurance that they are well, however, these individuals need to stay home, follow the latest isolation and self-monitoring guidance and connect with their primary care physician or the Renfrew County Virtual Triage and Assessment Centre if they have questions about their health or what they should do," said Dr. Cushman.

The service is available 24/7 by calling 1-844-727-6404.

For all the latest information about testing, isolation, self-monitoring, and other items related to COVID-19, visit the Renfrew County and District Health Unit website at <u>www.rcdhu.com</u>.

- 30 –

Renfrew County and District Health Unit Fax: 613-735-3067 media@rcdhu.com www.rcdhu.com



Renfrew County and District Health Unit "Optimal Health for All in Renfrew County and District"

For Immediate Release

(Pembroke, Ontario, 10:30 a.m., January 15, 2022)

Statement of Support from Renfrew County and District Health Unit Medical Officer of Health Regarding the Return to School

The Medical Officer of Health from Renfrew County and District Health Unit (RCDHU) has released a statement regarding the upcoming return to in-person learning for students and educators across the region.

To all students, school families, education, and school transportation staff:

As we enter yet another year of the pandemic, we remain committed to working with local school communities to help students stay in class and to do so as safely as possible. We support the return to in-person learning on January 17. Keeping students in class is beneficial for mental, social, and physical health.

Throughout the pandemic, public health measures have been effective at limiting the spread of COVID-19 in schools. While the risk of COVID-19 cannot be eliminated when community transmission is high, risk of transmission in schools is significantly reduced by the many layers of protection that have been put in place, including:

- Screening for symptoms before attending school and staying home with symptoms of illness
- Thorough cleaning and disinfection
- Cohorting as much as possible, physical distancing, and masking, including access to three-ply masks for students, as needed
- Frequent hand hygiene
- Active screening and isolation of individuals with symptoms, their household members, and high-risk contacts
- Enhanced ventilation and HEPA filters as outlined by the Ministry of Education
- High levels of vaccination in students aged 12 to 18 years, and rising levels of vaccination in students aged 5 to 11 years
- Rapid Antigen Tests (RAT) for students and staff in schools and child care
- Reporting of higher than normal absenteeism rates to public health which will trigger a review of infection prevention and control measures in the school

The COVID-19 monitoring and response strategy has changed. We have had to make changes to how we respond to the virus. The Omicron variant is highly transmissible, and spreads at a rapid rate and therefore widespread testing has limited value in slowing the virus. As a result, all

individuals with symptoms of COVID-19 can be presumed to be infected with the virus and must isolate as directed. Without confirmatory testing, these individuals will not be permitted to attend school until their isolation period is complete.

Public Health has already established protocols in place under The Health Protection and Promotion Act, 1990 to respond to infectious disease outbreaks in school settings. When the absentee rate in a school or child care setting increases sharply by approximately 30 per cent, a notification will be provided to school families with information on any additional public health measures that should be followed. Routine notification of families and exclusion of cohorts will not be taking place. Exposures that occur only in the school setting, with public health measures in place, will not typically be considered high-risk, and therefore, no action is required by others in a cohort - other than regular symptom monitoring.

We must all work together to keep the risk as low as possible. Everyone in the community, including staff, students, and families, must monitor diligently for illness and follow directions for isolation when applicable. To help limit the spread of illness in the community, we encourage everyone to get vaccinated.

Together with our school community partners, we look forward to welcoming students back to inperson learning. The return to class will provide immeasurable benefits to the mental and physical well-being of all students and their families. We know that there may be questions and concerns in response to changes and you can be reassured that we will continue to work with school partners to support a safe and healthy return to school throughout these changes.

- 30 -

Renfrew County and District Health Unit Fax: 613-735-3067 media@rcdhu.com www.rcdhu.com



Renfrew County and District Health Unit "Optimal Health for All in Renfrew County and District"

For Immediate Release

(Pembroke, Ontario, 12:25 p.m., January 17, 2021)

GO-VAXX Bus Coming to Renfrew County and District

Today, Renfrew County and District Health Unit (RCDHU) is announcing that the GO-VAXX Bus which hosts mobile COVID-19 vaccination clinics is coming to Renfrew County and District (RCD).

On Wednesday, January 19, 2021, a GO-VAXX clinic will be held at the Cobden Agricultural Society, 43 Astroblade Rd., between 12:00 p.m. to 6:00 p.m. The clinic is open to all ages for first, second, third and booster doses, and a limited supply of paediatric Pfizer vaccines for children aged five to 11 will also be available.

Starting Tuesday, January 18, 2021, at 8:00 a.m., residents can book an appointment through the Provincial <u>COVID-19 vaccination portal</u> or call the Provincial Vaccine Contact Centre at <u>1-833-943-3900</u>.

Residents CANNOT book an appointment for the GO-VAXX bus through the local booking site. GO-VAXX clinics are by appointment only.

GO buses have been converted to serve as mobile vaccine clinics to get COVID-19 vaccines directly to people, wherever they are located across Ontario.

Each bus operates as a fully functioning vaccine clinic with the necessary supplies and trained staff to provide assistance to people and ensure vaccines are administered safely. All COVID-19 safety precautions will be followed on board, including the required pre-vaccination screening and post-vaccination monitoring. The buses are fully accessible.

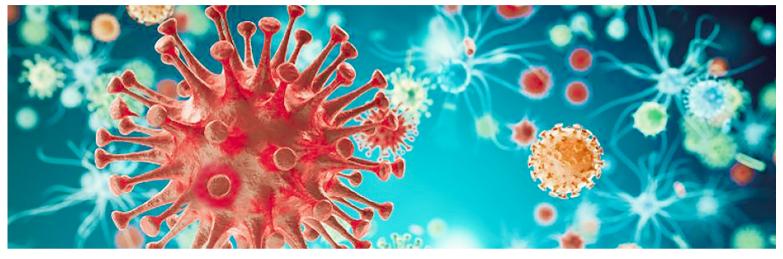
For more information on COVID-19 vaccination, visit <u>https://www.rcdhu.com/novel-coronavirus-covid-19-vaccine-rollout/</u>.

- 30 -

Renfrew County and District Health Unit Fax: 613-735-3067 media@rcdhu.com www.rcdhu.com

COVID-19 VACCINE NEWS BRIEF

JANUARY 13, 2022 I EDITION 34



COVID-19 Vaccination Clinics Offering Limited Walk-in Availability for Priority Groups

In line with the Ontario government, Renfrew County and District Health Unit and partners, are enhancing access to COVID-19 vaccinations to better protect children, staff, and families as Ontario responds to the Omicron variant.

Starting immediately, there will be limited walk-in availability at all COVID-19 Vaccination clinics across Renfrew County and District.



Clinic Update



Anyone 12 years of age or older can attend youth and adult (12+) COVID-19 vaccination clinics to get their COVID-19 vaccine, subject to vaccine availability.



Children 5-11 years old must attend a dedicated Children ONLY clinic.



Continue to monitor <u>www.rcdhu.com</u> and RCDHU's Facebook and Twitter for clinic announcements.



VACCINATION CLINIC LOCATION CHANGE

ARNPRIOR VACCINATION CLINICS ARE NOW BEING HELD AT:

Former Grove Nursing Home 275 Ida St, Arnprior

Book your appointment at https://www.rcdhu.com/.

Renfrew County and District COVID-19 Vaccine Communications Committee

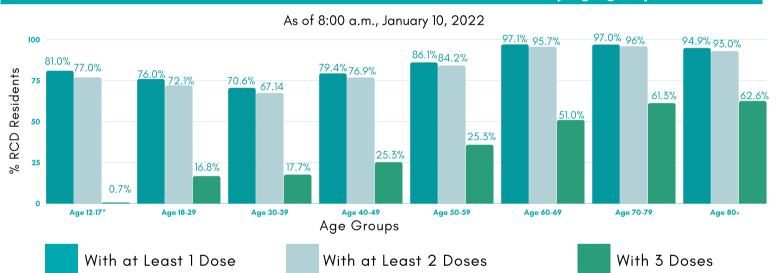
Local Update

As of 8:00 a.m. January 10, 195,719 doses of COVID-19 vaccine have been administered through one of several COVID-19 vaccination clinics across Renfrew County and District (RCD) with 90.5% of RCDHU adults (including youth born in 2009 or earlier, and Canadian Armed Forces Members) having received at least 1 dose (88.0% have received 2 doses or 3 doses).

Remember: Even if you have been vaccinated, it is important to continue following public health measures, such as physical distancing, wearing a mask and hand hygiene.



Percentage of RCDHU residents with at least 1 dose of COVID-19 vaccine, at least 2 doses of COVID-19 vaccine, and 3 doses of COVID-19 vaccine, by age groups



Notes: This age demographic breakdown does not include Canadian Armed Forces (CAF) members residing in RCD. *Includes individuals born in 2009.

New data source for population estimates: Statistics Canada. Population estimates 2001–2020: Table 1 annual population estimates by age and sex for July 1, 2001 to 2020, health regions, Ontario [unpublished data table]. Ottawa, ON: Government of Canada; 2021 [received 2021 Apr 22] as per Public Health Ontario (PHO).

Youth Corner (12-17 Years of Age)

Youth born in 2009 or earlier are eligible to book their COVID-19 vaccination appointment for the **Pfizer** COVID-19 vaccine.

Youth **second dose** appointments must be scheduled **at least 21 days after the first dose**. Indigenous youth may book a second dose appointment three weeks after their first. For more information visit:

- <u>COVID-19 Vaccine Youth Information</u>
- What Youth Need to Know About their Appointment
- <u>COVID-19 Vaccine Youth Consent Form</u>
- <u>COVID-19 Vaccine Information Sheet</u>

First & Second Dose Information

Individuals still looking to get their COVID-19

vaccinations should visit one of the various clinics taking place across Renfrew County and District each week. To see the latest schedules, visit RCDHU's COVID-19 Vaccine Rollout Webpage.

Another great option is to visit a local participating pharmacy. To find the closest pharmacy that is offering COVID-19 vaccinations, visit Ontario's online link for COVID-19 pharmacy vaccine locations.

You can also check in with your primary care provider to see if they have COVID-19 vaccine availability.

First & Second Dose **Eligibility List**

All residents 5 years of age or older are now eligible to book a first and second dose appointment for vaccination.



Due to the recent increase in students testing positive for COVID-19, RCDHU will no longer be issuing media releases for schoolrelated cases.

COVID-19 Third Dose Information

Visit Ontario's COVID-19 vaccine rollout webpage for up-todate information on the vaccine and implementation phases.

RCDHU FAQ: What You Need to Know About a Third Dose.

COVID-19 Proof of Vaccination Differs for Canadian Armed Forces Members

Renfrew County and District Health Unit (RCDHU) is notifying businesses and facilities that proof of vaccination looks different for military members. While non-CAF members must show government documentation accompanied by picture identification (ID), military members are required to show their CAF-issued vaccination booklet along with their military ID. Please note that proof of vaccination for CAF members can be in the form of an entry in a vaccination booklet, a sheet of paper or a card.

The authenticity of these documents can be confirmed by verifying that the name and service number on the document matches those on the individual's military identification card.

Providing Proof of Vaccination

Beginning January 4, 2022, Ontarians will be required to use their enhanced vaccine certificate with official QR code. Vaccine receipts without a QR code will no longer be accepted as valid proof of vaccination.

To save your vaccine certificate with a QR code to your phone, log-in to the COVID-19 vaccination portal using your Apple or Android phone.

- Select "Get your vaccine receipt"
- Scroll to bottom of page under "To download your proof of vaccination or book an appointment" and check off the "Terms of Use" box
- Click "continue"

Arnprior & District

Family Health Team

- Fill out the following form using your date of birth, health card info, and postal code. Click "continue"
- Next, you'll get two options: 1) booking a vaccination appointment and 2) access vaccine receipts. Click 'continue" on yellow box that says "Proof of Vaccination"
- Click "Download proof of vaccination" to save on your phone.

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For more information visit: Using your Enhanced Vaccine Certificate: Frequently Asked Questions







+ SFMH

Partner Websites

Renfrew County and District (RCD) COVID-19 Vaccine Rollout at a Glance

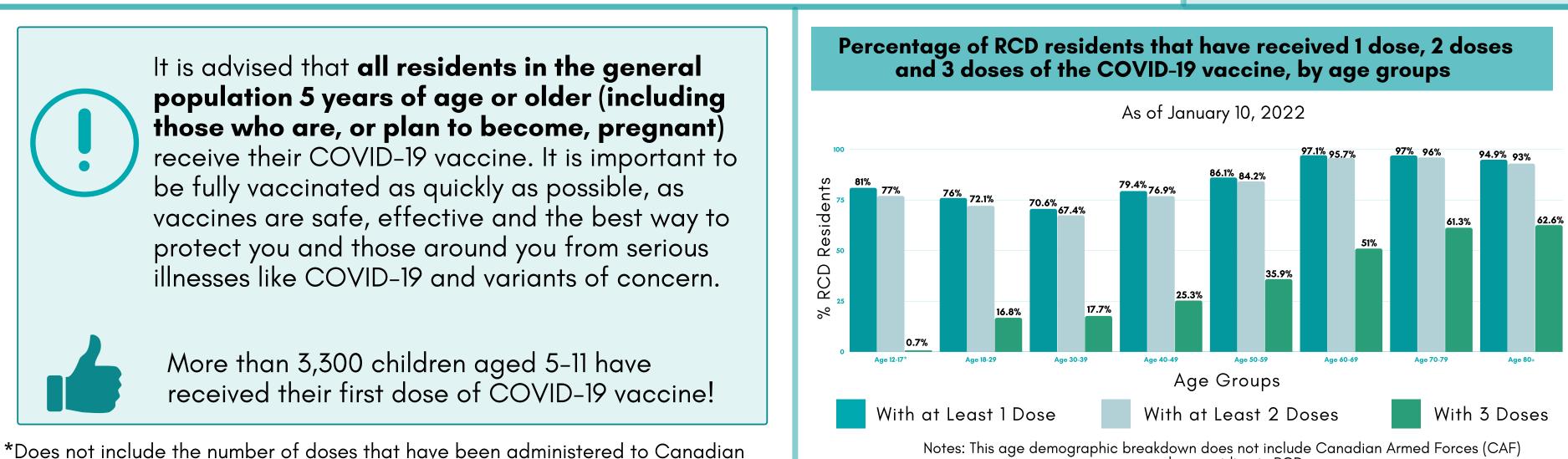
Updated: January 13, 2022

Key Messages

The Pembroke vaccination site for 12+ clinics has relocated to 100 Crandall Street. The Arnprior vaccination site has also relocated, to 275 Ida Street (Former Grove Nursing Home).

- The Pembroke vaccination site at 100 Crandall St will always accept walk-ins, while the other clinic locations across RCD will accept limited walk-ins.
- To obtain proof of your COVID-19 vaccination(s) with the official QR code, visit: <u>https://covid19.ontariohealth.ca/</u>. Ensure you have your health card with you. **If you cannot print** your proof of vaccination, ask a trusted family member or friend or visit your local library.

Eligible residents (18+) can receive their third dose this week, if they received their second dose of the COVID-19 vaccine **on or before October 17, 2021**.



Armed Forces (CAF) members. **Includes Canadian Armed Forces (CAF) members residing in RCD, according to

Garrison Petawawa medical services.

New data source for population estimates: Statistics Canada. Population estimates 2001-2020: Table 1 annual population estimates by age and sex for July 1, 2001 to 2020, health regions, Ontario [unpublished data table]. Ottawa, ŎN: Government of Canada; 2021 [received 2021 Apr 22] as per Public Health Ontario (PHO).

To get the latest COVID-19 vaccine information visit: www.rcdhu.com or call 613-732-9436 or 1-833-773-0004







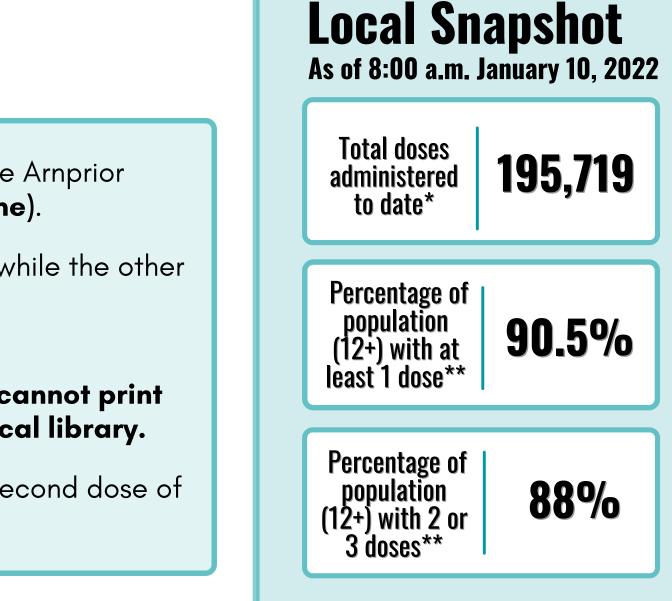




Arnprior & District **Family Health Team**







members residing in RCD.









MEDIA RELATIONS

9 INTERNATIONAL DRIVE PEMBROKE, ON, CANADA K8A 6W5 (613) 735-7288 www.countyofrenfrew.on.ca

RELEASE DATE: Friday, January 7th, 2022

FOR IMMEDIATE RELEASE

2022 Ontario Winter Games Postponed Until 2023

The 2022 Ontario Winter Games to be hosted by the County of Renfrew has been postponed.

The announcement, by County Warden Debbie Robinson, was made amidst the growing concern of the impact the Omicron variant is having on the health and safety of Ontario residents.

All parties will be working together over the coming weeks to explore the possibility of hosting in 2023, and additional information will be shared when a decision has been reached.

"The County of Renfrew was prepared to host the 2022 Ontario Winter Games during a pandemic, but we could not do it while safeguarding the health of the athletes, their families, our volunteers or the community at large," Warden Robinson stated. "The support from the Provincial Government, especially that of Minister MacLeod and her staff along with our MPP John Yakabuski was outstanding, but there is just too much risk involved to make the Games a reality in less than two months."

"The safety of Ontario communities is of critical importance right now, so while I also regret the necessity of postponing the Games, I am pleased to continue working with organizers to host this event in Renfrew County when it is safe to do so," said Lisa MacLeod, Minister of Heritage, Sport, Tourism and Culture Industries. "The Games are an important contributor to the economic and social well-being of the Renfrew County community, and as Ontario works to support the sport sector through the impacts of COVID-19, we will continue to support the Games to ensure their future success."

Games Organizing Committee Chair, Reeve Peter Emon, has amassed a determined group of volunteers and sponsors who came forward early on to offer their support for the Games, touted as the best ever Ontario Winter Games. He is confident that a delay will not dampen their enthusiasm or commitment to the event. "Our volunteers, sponsors and community partners all wanted our Games to highlight our community and to encourage athletes, officials and visiting parents to explore and enjoy the rich history and the many splendid settings here in the County," offered Chair Emon. "The Omicron variant was not going to allow our community to safely shine for our guests and visitors in 2022."

The decision to postpone the Games is also supported by MPP John Yakabuski. Having played a pivotal role in the County acquiring the Games for 2022, he was frequently updated on the work being done and the challenges the pandemic continued to place on the organizers.

"While disappointing to so many, this is the right decision at this time, "said MPP Yakabuski. "I want to thank the

Games Committee, all of the volunteers and the sponsors for all of the work they have done up to now in preparation for the Games. Their efforts will not be in vain as we are in a great position to host the games in the future. I also want to thank Minister MacLeod for her understanding and continued assurance of her support going forward."

-30-

FOR MORE INFORMATION CALL:

Paul Moreau	Chief Administrative Officer/Clerk, County of Renfrew	613-735-7288
Sierra Stinson	Media Relations/Grants Coordinator, County of Renfrew	613-735-7288



660 Speedvale Ave W, Suite 302 Guelph, ON N1K 1E5 T: (519) 837-1326 W: FarmFoodCareON.org

December 1, 2021

Dear Walter Stack,

On behalf of Farm & Food Care Ontario, we would like to thank you for the critical work you do on behalf of your municipality.

Farm & Food Care Ontario (FFCO) is a registered Canadian charity entirely focused on connecting Ontarians with their food and their farmers. FFCO's membership is comprised of farmers and associated agribusinesses, all proactively working together to provide information on food and farming to Ontario consumers.

We are pleased to provide you with a copy of the new edition of *The Real Dirt on Farming* booklet.

First published in 2006, this fifth edition of *The Real Dirt on Farming* is a nation-wide initiative designed to help Canadians connect with their food and the farmers that produce it – who they are, what they do, and why they do it. Using stories and credible science, the publication addresses common questions and misconceptions about Canadian food and farming, as well as other subjects that the general public has indicated are important to them.

To keep pace with Canada's changing food and farming landscape, many subjects have been added or updated to reflect advances in science, global events and consumer preferences. This new edition also includes a significant focus on careers in agriculture with feature stories on 32 people working in different agri-food roles across the country.

Substantial effort is put into ensuring all information sources are credible and accessible to readers. An expert committee of researchers, commodity and subject matter experts from across Canada were involved in reviewing and vetting content. These sources are available in the online version at <u>www.RealDirtonFarming.ca</u>.

For the first time with this edition, we have produced a classroom resource developed by Agriculture in the Classroom Canada, which will enable teachers and students to engage with the project while examining its key topics – animal welfare, crops and plants, sustainability, agriculture policy, current issues in our food system and more.

We hope this resource can help you, your staff and your constituents find answers to questions about agriculture in this great country. If you would like additional copies of the publication, or would ever like to visit a farm and meet members of Ontario's agricultural community, please contact our office.

On behalf of Ontario's farmers and agri-businesses, we thank you for the work you do in government and we wish you a successful and prosperous year.

Sincerely,

Bonnie den Haan

Chair, Farm & Food Care Ontario

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Helping you make informed choices with straight answers on food security, climate change, animal welfare, food safety and much more







Your Guide to Food & Farming in Canada





5th Edition

Table of contents

Chapter 1: Canadian farms and farmers – who is growing our food?

- What does it mean to farm in Canada?
- Who is growing our food?
- Female and farming
- Indigenous agriculture
- Getting into farming
- Conventional and organic farming .
- The corporate farm question
- The biggest change? Size .
- Family is at the heart of Canada's farms
- Regional roundup .

Chapter 2: Crops and plants 8

- . A Canadian oil for the world: canola
- Grains, oilseeds and specialty crops
- Pulses .
- Fruits, vegetables and fungi
- Growing crops indoors .
- Medicinal and ceremonial crops
- Wine, beer and other craft beverages
- The ultimate Canadian crop: maple syrup

16 Chapter 3: Farm animals

- Turkeys and chickens
- Hens and eggs
- Dairy cattle
- Real deal about veal
- . Beef cattle
- Pigs
- Sheep, goats and guardian animals .
- Insects are farm animals too
- . The buzz on honey
- What about fur farming?
- . Fish farming

24) Chapter 4: Humane treatment of farm animals

- Why are most farm animals raised indoors in Canada? ٠
- Keep farm animals healthy practise biosecurity
- Why can't they have more space?
- Genetics and animal breeding
- Are there rules for raising farm animals?
- Livestock on the move
- Animal care practices
- Animal welfare and animal rights

(11) Chapter 5: Food security, eating local and the cost of food

Ashley Colvin

- The cost of food
- Food insecurity
- The luxury of choice
- Food labels and claims What do they really mean?
- Plant-based proteins
- Buying organic
- Making healthy food choices
- What is supply management?
- Eating locally
- Imports and exports
- Working in agriculture
- Seasonal agricultural and temporary foreign farm workers

Chapter 6: Environment, climate change and sustainable farming

- Soil health and organic matter .
- Growing crops sustainably
- Pollinators, bee health and neonics
- Farming and technology
- Greener energy on the farm
- Farming's carbon footprint
- Livestock as part of the solution .
- Going the extra mile for wildlife .
- Manure, fertilizers, phosphorus and water What about plastics and packaging?
- .
- Food waste

48) Chapter 7: Healthy and safe food

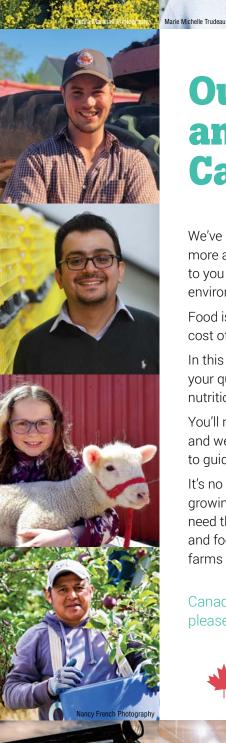
- ٠ Food safety rules for farmers
- Traceability
- Keeping farm animals healthy
- When animal and human health meet
- Antibiotics and resistance
- Raw facts about raw milk
- DNA barcoding
- Hormones, livestock and meat
- What about pesticides?
- **GMOs**

Chapter 8: Food, farming and the future

- Mental health on the farm .
- Changing consumer trends
- Facing the future



Farm photos in this book are all taken of Canadian farms, or of Canadian farmers. Many were winning entries in Farm & Food Care's 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 Front cover photo credits: Sheri Mangin, Ashton Irwin, Sarah Sebastian, Jodie Aldred and Coralie Spratt Back cover photo credits: Alycia Walker, Nancy French Photography, Grieg Seafood BC and Amy Haak





We've heard from Canadians across the country that they want to know more about food production. We have also heard what's important to you when it comes to the food you eat: topics like food safety, the environment, and the humane treatment of farm animals.

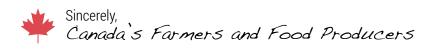
Food is connected to many of the big issues facing our society, from the cost of living and energy, to climate change, and health care.

In this publication, we're tackling those issues head-on to answer your questions, and to show you what we are doing to feed you safely, nutritiously, and sustainably.

You'll notice a particular focus on science. COVID-19 changed our world, and we learned first-hand how important it is to have science available to guide decision-making, and to make sure that things are done safely.

It's no different when we're producing food. As farmers, we're the ones growing crops and raising livestock every day, but we know that we need the advice of experts in fields like animal welfare, pesticide use, and food safety, so that we can make the best possible decisions on our farms to produce the best food possible.

Canadian farming has an impressive story to tell, and we're pleased that you're interested to hear it.













CHAPTER 1

Canadian farms and farmers who is growing our food?

Food and farming are a big deal in Canada. Not only do Canadians depend on farmers to produce the food we eat, but agriculture and agri-food provide jobs for more than 2.3 million people¹. One in eight Canadian jobs is directly linked to the sector, which contributed \$142.7 billion² to our national economy in 2019, and is thus a major driver of economic growth.



What does it mean to farm in Canada?

That question and answer depend on where you live. Farmers from coast to coast to coast raise a variety of livestock and poultry, and grow many different crops according to the climate and soils in their regions.

Canadian farms come in all types and sizes, from small orchards and vineyards to large grain farms and cattle ranches, varying in their ability to produce food. A small piece of very fertile land can profitably grow specialty vegetables for a niche market, for example, whereas a large 5,000-acre farm in a cooler climate with poorer soil is better suited for grazing animals.

At a glance...

It's all about family: 97 per cent of Canada's farms are family owned³.

Farms are bigger than in the past⁴: the average Canadian farm was 820 acres in 2016, up from 779 acres in 2011, and 237 in 1941. Technology means that farmers can produce more food and manage larger farms than in the past.

There are fewer farms: Canada counted 193,492 farms in the last Canadian census $(2016)^4$, as compared to 205,700 in 2011, and 276,500 in 1996.

Farms are diverse:⁵ Ontario has the most farms, but Saskatchewan's are the biggest, and British Columbia has the largest number of small farms (those producing less than \$10,000 in gross annual income). Canadian farms grow and raise everything from bison, alpacas, and mink, to lavender, grapes, greenhouse vegetables, and hazelnuts. **Canada feeds the world:** we are the fifth largest exporter of agricultural and agri-food products in the world, including:

ache Family

- 71 per cent of the world's maple products (maple syrup and maple sugar)⁶
- 40 per cent of the world's flaxseed⁷
- 31 per cent of the world's canola (world's leading producer)⁸
- 39 per cent of the world's pulses (world's leading producer of lentils and peas)⁹
- 52 per cent of the world's mustard¹⁰

Who is growing our food?

Fewer than two per cent of Canadians farm, and those that do are getting older. In fact, the average age of Canadian farmers reached 55 in 2016.

But for the first time in 25 years, we've also seen an increase in the number of young farmers in Canada (those under 35)¹¹. More than half of young farmers supplement their farm income with off-farm revenue, working in management, business, finance, trades, health, education, or natural resources and agriculture-related jobs. Their share of off-farm income varies significantly by farm type, which reflects the size and profitability of the farming operation, the seasonality of production, and opportunities to work off-farm.

Many farmers in Canada today have come here from another country to farm. For example, almost 60 per cent of Canadian immigrant farmers in fruit and tree nut production come from India, and Punjabi is now the third-most popular mother tongue of new Canadians who farm.

German and Dutch are the two largest language groups among Canada's immigrant farmers; that's because almost three quarters of Canada's immigrant dairy farmers come from the Netherlands and Switzerland¹².

Because there is a severe shortage of labour on Canadian farms, and there aren't enough willing domestic workers to fill all the available jobs, Canada also relies on many seasonal and temporary foreign farm workers.





Career Profile Organic Grape Grower

Karnail Singh Sidhu

Karnail Singh Sidhu arrived in British Columbia in 1993 at the age of 25. While he trained as an electrical engineer in India, his qualifications weren't recognized in Canada. Instead, Sidhu landed a job at a local winery, where his work ethic attracted the attention of the vineyard owner, who eventually funded his studies in viticulture (grape growing for wine) at Okanagan College and promoted him to vineyard manager.

In 2008, Sidhu opened Kalala Organic Estate Winery, with his wife Narinder, in the beautiful Okanagan Valley. Their winery produces upwards of 72,000 bottles of wine annually, which are mostly sold throughout BC. His wife takes care of the business and administration; his brother helps in the vineyard, and his daughters, nieces, and nephews all help both in the vineyard and with bottling.

In 2020, he was named BC Viticulturist of the Year, partly due to his commitment to ongoing research and community involvement. He believes his mentors played an important role in his success, and pays it forward today with his family, staff and other viticulturists. "Everyone has a different way of thinking," said Sidhu, "I think we can learn a lot from sharing our views and our knowledge with others."

Photo courtesy of the BC Wine Institute

Female and farming

Although the majority of farmers are still men, more women are farming today than ever before. Just under 30 per cent of farmers are female, according to the last census, compared to 25 per cent in 1996¹⁴. One in five young female farmers study agriculture after high school, and overall, women in agriculture are two times more likely to have a university education now than they were 20 years ago.

Various women in agriculture, including female farmers, have been inducted into the Canadian Agricultural Hall of Fame for their outstanding contributions to their sectors.

JoAnne Buth, a former President of the Canola Council of Canada, helped oversee unprecedented growth for Canadian grains and oilseeds. She served two years in the Senate of Canada, and became the first female CEO of the Canadian International Grains Institute.



JoAnne Buth

Indigenous agriculture

Indigenous people have an important connection to the land, and harvested plants and animals for traditional medicines and foods long before settlers arrived to what is now called Canada. In addition to the challenges that all farmers face, Indigenous farmers can encounter obstacles associated with colonization, such as regulatory systems including the *Indian Act*, as well as natural and geographic factors¹⁵.

The number of Indigenous farmers in Canada has been on the rise, increasing by more than 50 per cent between 1996 and 2016¹⁶. Several factors may have contributed to the increase including changes in self-reported identification over time. Almost 80 per cent of Indigenous farmers identify as Métis, with the largest numbers farming in Alberta, Saskatchewan, and Manitoba. A little over a quarter self-identified as First Nations, with most farming in British Columbia, Ontario and Alberta.

- Many Métis farmers raise cattle, or are involved in specialty crops like hay, sugar beets, hemp, hops, herbs and spices.
- Indigenous farmers are more likely to be women, as compared with non-Indigenous farmers.
- First Nations people fostered the planting relationship known as the "Three Sisters", where beans, corn and squash are planted side by side. The beans fix nitrogen to the soil; the corn stalks act as a trellis for beans; and the squash leaves provide ground cover that prevents weed growth and conserves moisture¹⁷.

The corporate farm question

Like many Canadian businesses, some farm families have opted to incorporate their businesses. This change means that they've chosen a business structure that can include both family members and paid employees—but it has nothing to do with how big or small a farm is, or how well animals or crops are cared for. According to the 2016 Census of Agriculture, 22.5 per cent of Canadian farms are incorporated as family corporations (only 2.7 per cent of incorporated farms are non-family corporations)¹⁸.

Getting into farming

Most Canadian farms are family businesses that are passed from one generation to the next. The cost of land in particular is high, making it difficult for young people to get into farming if there's no farm in the family to take over. That situation means that many have to get creative if they want to make their farming dream a reality.

Many new farmers start out by renting or buying small pieces of land, and getting help from friends, neighbours, or family, while also working outside the farm. Many look to specialty products, direct-to-consumer sales, or niche markets that they can supply on a small scale to differentiate themselves in the marketplace. Some farmers without a next generation to take over are building succession plans with young farmers that aren't part of their family, and others work out creative agreements to give young farmers a start.





More than one way to farm: conventional and organic farming

Farmers choose to farm in a variety of ways following different types of production practices such as conventional (non-organic) or organic production.

Organic food is grown in ways that support the principles of organic agriculture: health, ecology, fairness, and care¹⁹ —many principles that also apply to conventional farmers.

Farmers producing organic food follow production rules around improved sustainability which can include a focus on crop rotation, improving soil health, natural pest control methods, humane livestock management practices, and traceability from farm to fork—although it should be noted that many conventional farmers also follow these very same principles.

Some farmers grow both organic and conventional crops on their farms for different markets, but regardless of the type of farming, the key is sustainable production.

In Canada, demand for organic foods is on the rise. Canada's market for organic food items is worth over \$5 billion annually, increasing by 8.7 per cent every year²⁰. About 7,300 Canadian farms and 1,700 food processors are certified as organic.

For more information on organic food production, visit page 33.

The biggest change? Size.

Farms are bigger, and there are more tools and technologies to help farmers with their work. Smartphone apps and sensors can let a farmer know if a cow is sick even before she shows any symptoms; drones can detect crop pests and diseases in a field more guickly than a human; and GPS systems can help farmers pinpoint exactly where and how much fertilizer is needed in a field.

Most farmers today specialize in a specific type of farming, like greenhouse vegetables, mushrooms, dairy, or pork production. This specialization helps farms to be more efficient and produce more food, and makes it easier for farmers to learn and to adapt to challenges in their area of expertise.

A big challenge for today's farms is feeding Canadians sustainably. That means growing enough food in ways that are good for people, animals, and the planet—as well being financially viable and socially responsible—and all farms have a role to play in this process.

Family is at the heart of **Canada's farms**

In Canada, farming is still all about family. Many farms are handed down from one generation to the next in a process called succession. Parents and even grandparents often work together with sons, daughters, and grandchildren in the family's farming business. There are farms in Canada that have now been home to eight or nine generations of the same family.





Career Profile Potato Farmers

Jason, Harrison and Josh Hayden

Jason Hayden, a sixth-generation potato farmer on Prince Edward Island, is pleased to see his sons, Harrison and Josh, follow in his footsteps. "We feel very fortunate to have our next generation taking an interest in farming and not have to worry about the future of our farm." He added that working with family also makes day-to-day chores easier and more rewarding.

The family grows table potatoes, including white and russet, and operates a potato packaging warehouse on their farm. Potatoes grown on their own and neighbouring farms are packed and shipped across Canada and into the United States.

Harrison and Josh now run their own farms, growing a rotation of winter wheat, soybeans, and potatoes. "Making their own business decisions and having some ownership over how they farm is the best way to learn," said Hayden, but adds that he is always there for some helpful advice.

Regional roundup

Alberta

leads Canada in beef

production, and accounts

for more than 40 per cent of all beef cattle in

British Columbia

produces 95 per cent of Canada's cherry

Crop²⁴

Canada is a big country—and just as our geography and climate vary from coast to coast, so do our farms. The key to Canada's farm and food success has always been diversity. Here's a snapshot of farming across the country²¹:

In the territories,

agriculture includes herding wild animals like caribou and muskox; breeding sled dogs; horse outfitting and rigging; and harvesting native plants and berries.

Manitoba

has the largest number of young farmers under 35 in Canada.

Saskatchewan

grows more field crops than any other province—such as canola, spring wheat and lentils.

Ontario is the country's leading chicken producer, and

is home to two-thirds of Canada's greenhouse

vegetable production.

powerhouse, producing more dairy, maple syrup, pork, nuts, fruit and berries than any other

Ouebec

is a food and farming

Newfoundland & Labrador

farms have the highest rate of leased and rented farmland in Canada²²

Prince Edward Island grows more potatoes than any other province in Canada.

New Brunswick's leading fruit/berry crop is blueberries.

Nova Scotia has the highest proportion of female farmers in Atlantic Canada²³

Chapter 1: Canadian farms and farmers who is growing our food?

Crops and plants

Canadian farmers grow a diverse variety of crops across the country—crops that are used both here at home, and exported to countries around the world. You'll find everything from pulses, grains, and oilseeds, to fruits, vegetables, flowers, and specialty crops like herbs in Canada's fields, orchards and greenhouses.

A Canadian oil for the world

Canola is a "Made in Canada" crop that was developed through traditional plant breeding techniques, and is now the cooking oil of choice for billions of people around the world. Its name comes from a contraction of the words Canada and ola, meaning oil. Canola oil is prized for its heart-healthy properties, and contains the least amount of saturated fat of all common culinary oils. It is one of the most versatile and affordable oils, with many applications at home, in restaurants, and in food processing.

It is also a multi-purpose crop. Once the oil is extracted from the canola seed, a highprotein meal is produced from the remaining portion, which makes a great addition to livestock feed. It's also used as a replacement for petroleum, to make green plastics, and an environmentally-friendly fuel called biofuel. Canada exports more than 90 per cent of its canola as seed, oil, or meal, to approximately 50 markets around the world²⁵.



Canola is a member of the *Brassicaceae* family – the same botanical family as broccoli, turnips, rutabaga, cabbage, cauliflower and mustard.



Stop! Crops like canola and sunflowers are beautiful when they are in bloom and they attract a lot of admirers. But it's easy to damage the crop while walking through it, even just to take a few photos. Always get permission from the farmer before entering a field.



Career Profile Canola Farmers

Stacey Sagon

Mark and Stacey Sagon and daughters Georgia and Jayla raise beef cattle and grow canola, wheat, barley, oats and pulse crops like peas and lentils on their farm in western Saskatchewan.

They're especially enthusiastic about growing canola. "We love the potential of the crop. It responds so well to our farming practices and its quality is amazing," Sagon said. She added that the crop also continues to get better. In the last ten years, genetic improvements have resulted in higher yields and greater oil content in the seeds.

Sagon feels great pride when she sees canola oil on the shelf of her local grocery store. "There are so many choices in oils and I'm proud that canola oil, which is such a healthy choice, is right there and we're producing it on our farm."

Photo courtesy of Debra Marshall Photography



DID YOU KNOW?

Farmers grow three main types of corn in Canada²⁶?

Grain corn is corn in which the kernels on the cob are used to feed livestock, and are used to make fuels like ethanol, and as a human food ingredient.

Silage corn involves the whole plant being harvested as feed for livestock.

Sweet corn is the type of corn that people eat fresh, canned or frozen.

Michaela Knechtel

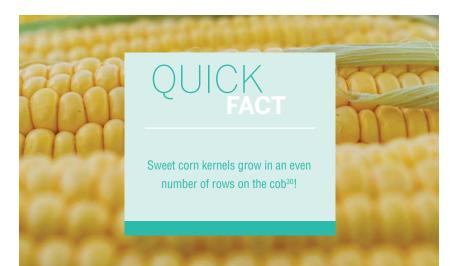
Grains, oilseeds and specialty crops

Corn, soybeans, barley, oats, canola, and wheat (including durum wheat—the kind used to make pasta) are Canada's major grain and oilseed crops. "What's an oilseed crop?" you may be wondering. It's a crop that is grown primarily for the oil found in the seeds.

Farmers will grow a variety of crops, depending on the soil and climate factors in their areas. Soybeans and grain corn are mainly grown in Ontario, Québec, and Manitoba, although farmers in Saskatchewan and the Maritimes also grow these crops. Canola, barley, oats, and durum wheat are grown primarily in the Prairie provinces. Other Canadian grain, oilseed, and speciality crops, also primarily grown in the Prairies, include rye, quinoa, flax, canary seed, mustard, sunflower, buckwheat, and camelina, as well as forages and industrial hemp.

Canadian grains and oilseeds are exported to many countries around the world. In 2019, for example, the EU, Iran and Bangladesh were major buyers of Canadian soybeans²⁷. China has traditionally been a major importer of Canadian soybeans. Canadian oats were in demand in the United States and Mexico²⁸.

Canada is a world leader in the production and export of mustard, with Saskatchewan responsible for two-thirds of the country's production. In 2019, Prairie farmers grew just under 400,000 acres of the crop in three different types: yellow, brown, and oriental mustard²⁹.





Career Profile Grain Farmer

Lane Stockbrugger

The Stockbrugger family has been farming on land in east-central Saskatchewan for over 100 years. Today, Lane Stockbrugger farms with his brother Lance and their two families.

They grow a rotation of malt barley, wheat, oats, canary seed, canola and peas. "No two farms are exactly the same, but what remains consistent is the time and attention that is put into every decision that farmers make," said Stockbrugger, "We're lucky that we can work through these decisions together, but we'll also draw on the expertise of others when needed, all to ensure we are making the right choices from a sustainability and safety perspective."

Farming has changed significantly over the last century, and the brothers hope to continue to evolve and build a farm legacy that the next generation wants to be involved in.

Photo with permission from Country Guide/Photography: Richard Jenkins • Reflections by Richard



Pulses³¹

Pulses are the dry, edible seeds of certain plants in the legume family. Major pulse crops grown in Canada include chickpeas, lentils, dry or field peas, faba beans, and dry beans. Most pulse crops are grown in Western Canada, but farmers in Ontario and parts of Québec are significant growers of dry beans, including navy beans, black beans, red kidney, white kidney, cranberry, and adzuki beans.

Pulse crops are a low-fat, high-fibre protein powerhouse with high levels of minerals like iron, zinc, and phosphorus, as well as potassium, folate, and other B-vitamins. They've also been found to help lower bad types of cholesterol, and to help maintain healthy blood sugar levels.

Pulses are also a key part of sustainable food production. They are a "nitrogen-fixing crop"—meaning that they have the potential to work with soil bacteria to draw nitrogen from the air and store it, so farmers can reduce the amount of nitrogen fertilizer applied to their field. After harvest, pulses leave behind nitrogen-rich crop residue, which can further reduce the amount of fertilizer that farmers need to apply for the next crop too.

More than 85 per cent of Canada's pulse crops are exported annually³², and they end up in 125 different countries, with China being the largest buyer of Canadian peas³³.



Career Profile Pulse Farmers

Hailey and Cale Jeffries

High school sweethearts Hailey and Cale Jeffries are farmers and entrepreneurs. Together, they're behind the Prairie Fava business.

In 2015, they moved home to Glenboro, Manitoba, so Cale could take over his fifth-generation family seed farm, Jeffries Seeds. Hailey left behind a fastpaced corporate sales and marketing job, and was unsure how to apply that spirit to their new life.

After Hailey's mother was diagnosed with cancer, she found a renewed interest in health and healthy food in particular. With the family seed business, and Hailey's marketing know-how, she saw the perfect opportunity to address the growing consumer demand for plant-based proteins. In 2015, they established Prairie Fava and began processing fava beans two years later.

Fava beans are very neutral tasting, making them a versatile option to enhance the protein and fibre content of everyday foods without adversely affecting the taste, colour or aroma. Fava flour is also a Canadian-grown, higher protein alternative for gluten-free flour substitutes.

They now ship whole and split beans, as well as flour, across North America and to Japan, Vietnam and Belgium. Prairie Fava recently received the Start-Up of the Year Award at the 2019 Manitoba Chambers of Commerce Business Awards.

QUICK FACI

Over 50 per cent of all lentils traded in the world come from Saskatchewan fields³⁴.



Mushrooms all year long

Mushrooms are one of the few crops that can be grown in Canada year-round. Canadian farmers grow more than 145 million kilograms of mushrooms every year³⁵—mostly white button, followed by brown and Portobello. Demand for specialty mushrooms, such as Shiitake, Oyster, King Oyster, and Enoki, continues to grow. Oh, and the little black specks you sometimes see on mushrooms at the store? That's the very important compost mixture (called substrate) used to grow beds of mushrooms—just rinse or wipe it off before eating.



Fruits and vegetables

More than 120 fruit and vegetable crops are grown in Canada, on approximately 14,000³⁶ farms. These include many long-time favourites from apples, peaches, pears, blueberries, strawberries, and grapes, to carrots, peppers, onions, lettuce, potatoes, asparagus, cabbage, cucumbers, and tomatoes, but also ginseng, cranberries, garlic, cauliflower, cherries, apricots, hazelnuts, Saskatoon berries, and many more.

British Columbia has the most fruit farms in Canada, and farmers in British Columbia, Québec, and Ontario grow 90 per cent of Canada's fruit crops³⁷. In the early 1990s, a chance seedling (a genetically unique plant that has been unintentionally bred) was discovered on an orchard in Cawston, BC, after the farmers noticed its unique and delicious apples. This variety was later named the Ambrosia Apple, meaning "food of the gods".

Ontario is Canada's vegetable king: home to almost 70 per cent of Canada's production of greenhouse vegetables; the leader in field vegetable production (those that are grown outside in a field instead of in a greenhouse); and also the biggest producer of mushrooms in the country³⁸. Québec and British Columbia are Canada's other two big vegetable-producing provinces.



DID YOU KNOW?

Farmers and researchers in Ontario are experimenting with a crop called Tiger Nut? It's a small tuber, or root crop, that is the key ingredient in a popular Spanish drink called *Horchata de Chufa*.

QUICK Fact

Space spud – the first vegetable grown in space was a potato! NASA and the University of Wisconsin first tested seed potatoes in space aboard the Columbia space shuttle in 1995³⁹.



Career Profile Fruit & Vegetable Farmer

Chris Oram

One of the biggest challenges of farming in Newfoundland is unpredictable weather, as fruit and vegetable farmer Chris Oram and his family can attest to. Spring can be late in coming and winter early in arriving which makes for a short growing season compared to other provinces. As such, "cole" crops (or cool season plants) like cabbage, rutabaga, carrots and potatoes are popular crops grown on the island. The family also grows "A to Z" – apples to zucchini and everything in between which they sell at their family's market and others in the area. Rutabaga is an island speciality. "Everyone says we have the sweetest rutabaga in the world because of our cold climate," Oram noted.

After high school, he wasn't planning on farming with his parents Dick and Arlene. He attended university, playing on the varsity basketball team. But the longer he was away, the more he missed the family business. His wife Kayla also now works with them and they look forward to welcoming a third generation in the months ahead.



Greenhouses can grow 10 to 20 times the amount of vegetables on the same area as a field-based farm⁴⁰.

Growing under glass

More and more of the fresh produce and flowers which Canadians enjoy are grown in greenhouses, under glass, rigid plastic or poly-film, practically year-round. Tomatoes, peppers, and cucumbers are Canada's biggest greenhouse crops, but farmers are also growing lettuce, green beans, eggplants, microgreens, and herbs, and increasingly, fruits like juicy, sweet strawberries indoors.

Southern Ontario has the highest concentration of greenhouses in North America, and the province has the most vegetable greenhouses in Canada, covering almost 3,100 acres – that's about 7,750 Canadian hockey rinks⁴¹!

Flowers and potted plants are also greenhouse crops in Canada, with farmers producing over one billion greenhouse flowers and plants in 2018⁴². Tulips, gerberas, chrysanthemums, snapdragons, and lilies are among the most popular cut flowers grown in Canada, whereas outdoor geraniums, herbs, and hanging baskets, as well as tropical and green plants, are the leading potted plants.

Greenhouse growers typically use a soilless growing system, called hydroponics, where plants are grown in media such as rockwool or coconut fiber. Inside a greenhouse, farmers provide heat, water, nutrients, and sometimes extra light to boost natural levels of sunshine to nourish plants. They also use bugs, like bumblebees, to pollinate plants, and ladybugs to control harmful insects.

That consistent indoor climate means production 10 out of 12 months of the year⁴³. There's no worries about bad weather; and farmers can plan their production reliably to make sure that they have enough products to meet consumer demand.



Other ways to farm indoors

Growing food indoors is becoming popular in ways other than by using a greenhouse, as people look to minimize risk from climate change, and to buy more of their food locally.

In **vertical farming**, plants like lettuce, herbs, and leafy greens are grown indoors in vertical stacks, instead of side by side the way they grow in a field. Farmers can provide the exact amounts of water, light, and nutrients that a crop needs—and because the crops are growing vertically, farmers can grow a lot of food in a small area.

Container farming is similar, but it uses smaller, self-contained units that often resemble a shipping container to grow lettuce, herbs, and leafy greens. They're an affordable way for people to grow their own food in areas like Canada's north, where it is too cold to grow vegetables most of the year. Even some farmers in southern Canada are using container farms so they can start offering consumers fresh local crops all year long.

Medicinal crops

Some farmers grow crops not as food, but as medicine. **Ginseng** is one such example—the root was traditionally used in Chinese and Indigenous medicine, but has now found wider use as a stress-reducer, and to promote overall well-being. Canada is a global leader in the production of North American ginseng *(Panax quinquefolius)*, and more than two-thirds of the entire crop is grown in a small area of Southwestern Ontario. Ginseng beds are easily recognizable, as they're covered by shade cloth structures—that's because the plants must be grown in 70 - 80 per cent shade.

Cannabis is another crop that is now increasingly being grown in Canada, both for medicinal and recreational uses. Licensed growers grow the crop primarily in greenhouses, under very strict rules and regulations. In 2018, Canada became the second country in the world to legalize use of recreational marijuana, although health-related uses had been allowed for longer.



Ginseng

Growing for sacred ceremonies

Tobacco, cedar, sweet grass, and sage are the four sacred plants of Indigenous peoples. Tobacco plays a major role in every stage of life for some Indigenous cultures—the smoke is believed to be a pathway to the spirit world, carrying all thoughts, feelings, and prayers to the Creator⁴⁵. University of Saskatchewan has been conducting trials growing traditional *Nicotiana rustica* or ceremonial tobacco, harvesting its first crop in 2019, and sharing plants and seeds with local Indigenous populations⁴⁶.



Canadian crops for the Canadian climate

Our climate varies across the country, but winters pretty much anywhere in Canada are cold, with plenty of snow, and we only have a few warm summer months. Our crops have to be strong enough to survive those extremes, and plants that grow well in warmer climates don't always produce well in Canada. That's why Canadian plant breeders work hard to develop new varieties that love Canadian weather in all parts of the country!

New corn and soybean varieties can now be grown in cooler regions of the country. Cold Snap[™] Pear is a popular, winter-hardy new pear variety developed by Agriculture and Agri-Food Canada fruit breeders.

Radiance is a tasty sweet potato developed for Canadian farmers at the Vineland Research and Innovation Centre, where they're also breeding hardy, low maintenance, and disease-resistant Canadian roses.

Cold Snap™ Pears

What is old is new again

Some Canadian farmers are looking to the past to find new niche products, and are growing vegetable and fruit varieties, and raising livestock breeds that were common 50 or 100 years ago, but are no longer used in modern food production.

They are called **"heritage breeds"** or **"heirloom varieties"** and often have unique flavours and other traits, like disease resistance or drought tolerance. That's why they're popular with

chefs and food lovers, but also with plant and animal breeders who are looking for ways to make crops and livestock healthier and better able to withstand climate change.

One example is canary seed, a crop in development in Saskatchewan for human consumption under the name "alpiste". It's a member of the same cereal grain family as wheat, oats, barley, and rye, and is gluten-free, nutrient dense, and high in protein.





Ice wine is a dessert wine made from grapes that have naturally frozen on the vine before being harvested? Canada is known around the world for having some of the best ice wine, as well as being the largest producer of the sweet drink.



Ice wine grapes on the vine

Wines, beers and other craft beverages

Some crops aren't just consumed as food; they make excellent drinks too! Canada's main wine-producing regions are in Ontario, British Columbia, Québec, and Nova Scotia, with over 600 wineries and growing⁴⁷.

Cider, a fermented beverage made from apple or pear juice, is quickly becoming popular with Canadians, and many of Canada's new craft cideries use North American apple varieties like McIntosh, Ida Red, Northern Spy, Gala and Russet in their products.

Craft beer is also popular, and there are farmers who grow specialty grain and hop varieties to help craft brewers to create unique types of local beer. In 2019, there were more breweries in Canada than ever before—and most are small, local businesses⁴⁸.

A growing number of Canadian distilleries are now making specialty spirits, and even using milk to make vodka! And non-alcoholic craft beverages are emerging too, like kombucha breweries in Atlantic Canada. Kombucha is a fizzy drink made using sweetened tea, fermented with bacteria and yeast, and contains antioxidants and probiotics, with potential health benefits⁴⁹.



Career Profile Research Scientist

Dr. Alex Speers

The science behind the suds: Canada's craft brewing boom has vastly expanded available beer choices for consumers. A good brew doesn't happen by accident, however. In fact, it's often the result of research by someone like Dr. Alex Speers.

Speers is a professor at Dalhousie University and one of Canada's few scientists who specializes in brewing. In one of his current projects, he is piloting the suitability of different Canadian barley varieties to floor malting, the traditional and labour-intensive way barley was malted before the process became automated.

There is renewed interest in this ancient art from craft breweries and maltsters looking to create unique products, but according to Speers, there is little documented scientific information about the process, and how it impacts fermentation, product quality and safety.

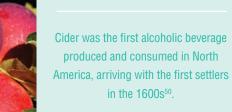
"Many craft breweries want to specialize in local production, so they want to source and process their barley locally, but local craft floor malting operations are limited and don't have the resources or capacity that large maltsters do," he explains. "Our goal is to provide the information and resources that will help craft brewers and maltsters succeed."

Photo courtesy of Danny Abriel/Dalhousie University

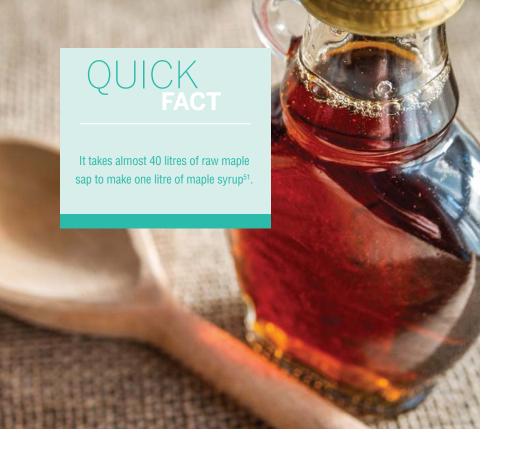


During the coronavirus pandemic, many of Canada's distilleries quickly switched to producing much-needed hand sanitizer for local hospitals, businesses and other organizations.

DID YOU KNOW?



Nancy French Photography



The ultimate Canadian crop

It doesn't get more Canadian than maple syrup! And Canada is a leader in the production of this golden goodness, supplying about 71 per cent of the world market. Québec is by far the biggest maple syrup producer in Canada—more than 90 per cent of Canada's maple syrup comes from that province⁵².

Indigenous people taught early Canadian settlers how to harvest sap, and boil it to make maple syrup. Maple sugar was the first kind of sugar produced in eastern North America, and remained the standard sweetener until 1875, when cane sugar became available⁵³.



Career Profile Maple Syrup Producer

Jo-Anne Beaucage

"In life, or for work, where our farm is located is marvellous. We're so lucky!"

And for 40 years, Jo-Anne Beaucage has lived in that lucky location, 121 hectares of woodlands on the edge of La Vérendrye provincial park, a two-hour drive north of Ottawa. Originally from Montreal, Beaucage moved to the area with her husband to start maple syrup production at Sucrerie Beaubel.

Today the farm has 27,000 taps, including on crown land made available to Quebec's maple syrup producers to promote sylviculture (sustainable forest management) while increasing maple syrup production. That meant almost 40,000 litres of syrup in 2020 at Sucrerie Beaubel, one of the largest full-time maple syrup producers in the province.

Although most of the farm's syrup is sold commercially, Beaucage has started producing some certified organic syrup for sale at the markets in Ottawa through a program organized by Quebec's maple syrup producers' federation. "We work hard and like all entrepreneurs we always try to be efficient as possible, but quality is always important; we must have respect for the product," she says.





DID YOU KNOW?

That the world has a Global Strategic Maple Syrup Reserve? Yup, and it's in Canada—a collection of warehouses that have stockpiled over 100 million pounds of maple syrup⁵⁴!

Farm animals



Career Profile

Lucas McCartney & Werda Saeed

Werda Saeed thought she knew what a farmer "looked like", until she met her husband, Lucas McCartney, when they both attended McGill University. Growing up in Ottawa, Ontario, Saeed's experience on farms was limited. "It never, ever, occurred to me that I could grow up and become a farmer," admitted Saeed, but she now knows that farmers come in all shapes and sizes.

The newlyweds tackle every new challenge as a team, including taking over McCartney's third generation family turkey farm located outside of Quebec City. It has been a total collaboration since the first flock that they raised together almost two years ago. They are open to trying new ideas, and treat each new flock as a carefully observed investigation, all with the objective of improving the health and comfort of the animals even further. This approach to farming is the result of their research backgrounds in plant science and engineering. McCartney holds a M.Sc. and Ph.D., with a focus in greenhouse ventilation and cooling technologies, which can be "surprisingly applicable to the systems we use in poultry barns to keep the birds comfortable," said McCartney.

Photo courtesy of Marie Michelle Trudeau

Farmers across Canada raise a wide variety of livestock and poultry to produce meat, dairy, eggs, fibre, and many other products. Here's a look at some of the main types for farm animals raised in Canada.

Turkeys and chickens

Turkeys and chickens raised for meat (those chickens are called "broilers") live in modern barns where temperature, humidity, light, and ventilation are carefully monitored to ensure that the birds stay healthy. They roam freely around the barn on a floor that is covered with a soft bedding material of straw or wood shavings, and can help themselves to feed and water any time they want. Their feed consists of mixed grains and oilseeds, including corn, soybeans, wheat, barley, and canola, as well as minerals and nutrients.

Iodie Aldre

Young chickens and turkeys arrive on the farm from a hatchery as chicks or poults, and grow to market weight with other birds as part of a flock. Once birds go to market, all the bedding and manure is taken out of the barn, and the building is thoroughly cleaned and disinfected before the next flock of birds arrives. This approach helps prevent disease, and keeps the flock healthy.



Hens and eggs

Egg-laying hens in Canada can live in five different types of barns:

- **Enriched**—Hens live in smaller, more natural sized groups with nest boxes, scratch pads, and perches that allow them to exhibit natural behaviour. This method will be the industry standard in Canada by 2036.
- Free run—Hens live in larger groups, and can move around freely on the entire barn floor, but don't go outside. They have scratch pads, and lay their eggs in nesting boxes.
- **Free range**—Hens in larger groups are raised in barns similar to free run, but can go outside when the weather is suitable for them to do so. They are able to scratch and lay their eggs in nesting boxes.
- **Aviary**—Larger groups of hens live in a barn with several levels for perching, eating, and drinking. They lay their eggs in nest boxes, and can go down to the barn floor to scratch.
- **Conventional**—Hens live in small groups with equal access to fresh food and water. Mesh floors allow the hens' waste to fall away, keeping the birds and eggs clean. Canadian egg farmers began eliminating this type of barn in 2014, and any new barns that are being built, or existing barns that are being renovated, must follow the new housing standards.

Each type of housing has pros and cons, but the focus is always on flock health. And research is ongoing in Canada and around the world continuously to develop the best housing solutions for birds, farmers and consumers.

Check out **www.FarmFood360.ca** to tour farms using the different types of hen housing, and to learn what the labels on your egg cartons mean.

FARM FOOD 360°



Career Profile Egg Farmers

David, Glen and Tyler Coburn

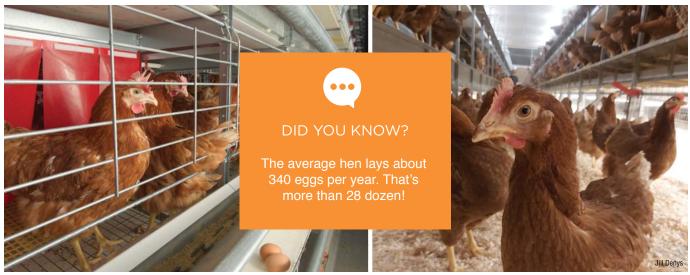
David Coburn and his sons, Glen and Tyler, are sixth and seventh generation farmers in Keswick Ridge, New Brunswick. Like many others in Eastern Canada, the Coburns have diversified their farm, which now includes laying hens, row crops, a feed mill, pumpkins and an apple orchard, as well as a small beef herd.

They like to think of their farm as a closed loop. Their in-vessel composting system, the first in Atlantic Canada, is used to compost organic waste including manure and apple pomace, which can then be applied to cropland to grow feed for the animals.

In 2018, they built an enriched housing barn for their hens – a project of the two brothers as they increasingly take over management from their father. Coburn is proud to see his sons take over the farm and make their own contributions to the Coburn family history.

Coburn has been working on creating an on-farm museum that details its 200-year-old history. The family proudly showcases the museum annually when they invite the local community to visit and tour the farm.

Photo courtesy of Egg Farmers of Canada



Enriched hen housing

Aviary free run hen housing

More than one stomach compartment

Unlike humans, some animals digest their food in more than one step. First, they eat the raw material, and then they regurgitate a partiallydigested version of that feed, which is called cud, and chew it again. This process is called ruminating—and animals that digest their food this way are called **ruminants**.

Ruminants include cows, goats, sheep, Ilamas, bison, buffalo, elk, and deer; they each have four compartments in their stomachs (rumen, reticulum, omasum, and abomasum) to help them digest their food.

Dairy cows

Dairy cows—those raised to produce milk—are leaner than their beef cattle cousins, as they put their energy into making milk instead of gaining weight by building fat and muscle. Holsteins are the most popular milking cows in Canada, and are easily recognizable by their black and white spotted hides.

Other common dairy breeds in Canada are Jersey, Ayrshire, Brown Swiss, Guernsey, Milking Shorthorn, and Canadienne.

Did you know that more and more Canadian farmers are using robots to milk their cows? Cows move around freely inside the barn, and it's up to them to choose when and how often they go to a robot, where they are milked by an automatic machine. The robot keeps track of how many times a day each cow has been milked, how much milk she has produced, and can track how much feed she has eaten. That means that the robot can let farmers know if a cow might be sick, if she isn't giving as much milk, or isn't coming to the robot to be milked as often.

There are two other common barn styles used to house Canadian dairy cows:

Free-stall barns barns are open-concept where cows move around freely, and go to a central milking area, called a parlour, two or three times a day at a set time to be milked by farmers. To keep cows comfortable, many farmers have large fans and backscratching stations, and robots that travel the alleys pushing feed closer for the cows to eat.

Tie-stall barns barns have an individual stall for each cow, with bedding, and cows are milked in their stalls. The farmer brings feed to the cows in their stalls.

In all barns, milk flows through pipes into a large milk tank, called a bulk tank, where it is cooled and stored until the milk truck comes—every two days on most Canadian farms—to pick it up and take it to a dairy processing plant.

Some dairy farmers will let their cows out onto pastures in spring, summer and fall. When it rains or is too hot, though, cows generally prefer the comfort of a cool, wellventilated barn.



Some cows naturally produce milk with the A2 version of beta-casein rather than A1. Some studies suggest that this A2 milk can have a beneficial impact on human gut health, making it popular with people who have gastrointestinal sensitivities to regular dairy milk on the market. A few dairies in Canada have started selling this type of milk to meet consumer demand.



Career Profile Organic Dairy Farmer

Sarah Yoder

Ninety years ago, Bradner Farms, near Abbotsford, British Columbia, milked cows by hand, shipped milk in cans, and transported goods by horse and buggy. Today the farm, renamed Golden Gate Farms in 2014, is run by fourth generation farmers Sarah and Bud Yoder and utilizes robots to help milk and feed their herd. The farm has been certified organic since 1998 and was the first farm in western Canada to ship organic milk.

Each cow wears a high-tech tracker (sort of like a Fitbit) that monitors their activity, including rumination, how much they have eaten and how many steps they have taken. It is also synced with the robotic milker to record milk production and quality. All of this data can tell the Yoders how healthy each animal is, or alert them if one of the cows needs special care or attention.

"On an organic farm, we have fewer options if a cow was to get sick, so prevention is key," said Yoder, "The robots tell us so much information about each animal's health which allows us to always stay one step ahead."

Veal cattle in group housing



Female dairy calves in front of hutches

Calf hutches

On some farms, calves live in small white structures outside the barn called "hutches" in the first few weeks of life, while their immune systems aren't yet fully developed. This separation is to protect them against bacteria and germs, and to make sure they get a strong, healthy start until they are big enough to move from the hutches into group housing with other calves. Once they're old enough, the females will have calves of their own and become part of the farm's milking herd.

The real deal about veal

The male offspring of dairy cows are called bull calves. They don't produce milk, so many are raised for meat called veal. Ontario and Quebec are the largest Canadian producers of veal because they also have the greatest number of dairy farms. Holsteins are the most common breed of veal cattle. They grow quickly, are well-muscled, and very lean.

Grain-fed veal cattle are raised on a mainly milk-based diet until they're six to eight weeks old, before transitioning to a balanced ration based on grain and pellets made of protein, vitamins, and minerals. They reach market weight around 348 kilograms (769 pounds).

Milk-fed veal cattle are raised mainly on a milk-based diet, with some grain and fibre included in the ration. They're ready for market once they weigh approximately 250 kilograms (550 pounds).

Veal cattle are raised in group housing with other veal cattle of a similar age. They are housed in well-ventilated barns, and are bedded with straw or wood shavings so they stay clean, dry, and comfortable. Research is ongoing into many aspects of veal production, especially health and welfare of the animals.

In some parts of Canada, dairy steers (castrated bulls) are more commonly raised in feedlots for beef production.





Beef feedlot

About beef cattle

Specific breeds of cattle that are raised for meat are called beef cattle. Canada's major beef cattle breeds include Aberdeen Angus, Charolais, Hereford, Simmental, Limousin, Maine-Anjou, Salers, Gelbvieh, and Shorthorn, and farmers choose which breed or breeds to raise based on the characteristics of each breed.

Beef cows and their calves typically live on pasture during spring, summer, and fall, eating mostly a grass diet. Their thick coat means that, with adequate shelter and a steady supply of feed and water, they can live outdoors comfortably all year long. When beef cattle reach a weight of approximately 400 to 460 kilograms (about 900 to 1,000 pounds), they usually move from fields and ranges to open-air yards or barns called feedlots, where they can be managed more closely.

In feedlots, cattle are slowly moved from a diet of mainly forages (grasses and other plants) to a higher energy diet of grains (like barley or corn), hay silage (chopped and naturally fermented plants), minerals, and hay. This process helps make marbled, high quality grades of beef. Marbling is the existence of small white flecks of fat that run through lean meat, which contributes to its flavour and tenderness.



Grass-fed or grain-fed

You may have heard or seen the terms **"grass-fed"** and **"grain-fed"** beef. These terms are related to what beef cattle eat before going to market. Grass-fed means that the cattle are raised on pasture, and supplemented with hay or silage in the winter, for their entire life. Grain-fed cattle are raised on pasture before being transitioned to a diet consisting primarily of corn or barley during the latter period of their life—this change is what helps give the meat its marbling. Both methods are used in Canada to raise beef cattle in a sustainable, environmentally-responsible manner. About 80 per cent of the feed that all beef cattle eat during their life is based on grass.

So, which is better for you?

Both! Beef from both grass-fed and grainfinished cattle contributes a wide variety of nutrients important to our health. Most studies agree that the nutritional differences between these two types of beef are small⁵⁶.

To read the profile of two beef farmers visit pages 41 and 45.



Career Profile Pig Farmers

Paul and Micah Larsen

Paul Larsen and his son Micah raise pigs on their farm near Belfast, Prince Edward Island. They grow a rotation of barley, winter wheat and soybeans which are then used to make feed for the pigs in their on-farm feed mill. They make specialized recipes, called rations, depending on the needs of the animals at that age. The manure produced by the pigs is then used as a natural fertilizer for their crops.

Micah has been farming full time for three years. In 2019, he spearheaded a change to make the farm more cost efficient and environmentally-friendly by installing a high-efficiency biomass boiler to heat their barns. A biomass boiler uses renewable fuel to create energy. It can burn woodchips and sawdust from leftover waste such as tree tops and branches, shipping pallets and construction or furniture offcuts, as well as straw, corn husks and cherry pits to name a few.





DID YOU KNOW?

Pigs can get a sunburn too! That's why even pigs that live outdoors must have access to some kind of shelter from the sun.

Pigs

Pigs can be raised indoors or outside, but since most breeds don't have fur or wool coats to keep them warm in Canada's cold winter weather, it is difficult for them to live outdoors all year long. That's why most pigs in Canada live in specially-designed barns with fans—or "curtains" that can be opened—to keep a steady, comfortable climate indoors year-round, and to protect the animals against disease. For more information on biosecurity, visit page 24.

Sows and piglets

Sows are female pigs that "farrow" or give birth to a litter of piglets twice a year. Each litter usually includes 12 to 16 piglets.

Just before giving birth, most sows go into special enclosures called farrowing pens where they stay until they've finished nursing their piglets. They can lean against the bars of the pens as they lie down—that's to make sure they don't accidentally lie down on top of their piglets and crush them. The pens allow farmers to monitor the piglets and sows closely during this critical time, and also include a special area next to the sow where the piglets sleep, and can be kept warm with a heat lamp or a heating pad.

Once they are weaned from their mothers, piglets live in groups with other pigs the same size or age. In barns built after 2014, sows live in groups too, as individual stalls are being phased out in Canada. Farmers, researchers, and other welfare experts work continually to improve how pigs are raised, and research in pig health, behaviour and housing is ongoing in Canada and around the world.



Sheep have nearly 360-degree vision? That's because they have rectangular pupils⁵⁷!

Sheep, goats and animal guardians

In Canada, some sheep live outside, on pastures, all year long, with farmers feeding them hay and grain in the winter. Other shepherds prefer to keep their flocks in the barn, but most farms use a mixture of both systems. Many sheep farmers use dogs to help with herding, and to guard and protect animals from predators like coyotes. Donkeys and llamas are also good guardian animals.

Goats can be raised for milk or meat production, just like cattle. And just like dairy cows, dairy goats live in barns and are milked regularly. Meat goats may live on pastures too, but still need protection against cold winter weather and predators.

Goat milk can be an excellent alternative for adults with allergies or intolerances to cow's milk—cheese, ice cream, yogurt, and curds are just some of the dairy goat products now widely available. It can also be suitable for children who can't drink cow's milk, pending consultation from a pediatrician.

Insects are farm animals too!

Some farmers in Canada and other countries are now raising insects. Crickets are a major source of protein for over two billion people from Mexico to Asia, and insect-based food products, from flour to nutrition bars and pasta sauces, are now available in Canadian grocery stores too. Insect protein is also a major ingredient in reptile and fish feed—it's a more natural and sustainable alternative to other protein sources in fish diets—and research is underway in various countries as to whether it might be suitable for livestock and poultry as well.

Honey

Honey bees are vital for pollinating fruit, vegetables, and other crops, like canola. Canada produces about 75 million pounds of honey every year. More than 80 per cent of Canada's honey is produced in Alberta, Saskatchewan, and Manitoba. About 9.3 million pounds of honey were produced in Canada in 2018, with 7.8 million pounds exported, mostly to the United States⁵⁸.





Mink

What about fur?

The fur trade has existed in Canada long before we were even a country. Mink is the most common animal raised for fur in Canada, followed by fox and chinchilla. Popular wild furs include muskrat, beaver, raccoon, coyote, and marten.

Just as with other farmed animals, farmers have to follow rules and regulations for raising fur-bearing animals, including a recently updated *Code of Practice for the Care and Handling of Farmed Mink (and Farmed Fox)*: www.nfacc.ca/codes-of-practice.

Sustainability is a big part of fur farming. Animals, like mink, help to reduce food waste by eating leftover eggs, cheese, fish, chicken, and other human food that has been discarded from grocery stores, restaurants, and other locations. Their bedding of straw or wood shavings and even the animal remains themselves are composted and recycled as a natural fertilizer, or used to make biodiesel, an environmentally-friendly fuel.



Career Profile Salmon Farmer

Kirstyn Nygren

Not all farmers drive tractors or work in barns. In fact, salmon farmer Kirstyn Nygren spends more than half the year floating off the coast of remote Nootka Sound, British Columbia. But she doesn't mind the solitude. After all, she has as many as 700,000 Atlantic salmon to keep her occupied, not to mention a breathtaking view of the Pacific Ocean.

Nygren grew up fishing with her family, and loves spending time outdoors, which is essential to her job as the Assistant Manager of one of Grieg Seafood's open-net salmon farms. The ocean can be unpredictable, so you have to be able to "roll with the punches and adapt quickly," explained Nygren. She has a B.Sc. in Marine Biology and Oceanography, and especially enjoys environmental monitoring, like taking plankton samples and testing water conditions. Fish farmers come from all kinds of backgrounds, but the one thing they have in common is a "respect for the environment that they work and live in," says Nygren.

Bison, elk, rabbits, and more

Beyond the traditional farm animals to which we've just introduced you, Canadian farmers also raise many other types of animals on their farms, especially for consumers who are looking for more diverse food choices including deer, elk, bison, rabbit, and duck, for meat. Wool from alpacas and llamas is prized for its cashmere-like softness, and some farmers milk water buffalo to produce specialty cheeses like buffalo mozzarella.

Horses

In Canada, most horses are used for recreation, but many also work on ranches to help move and manage livestock. Horses eat grass, hay, oats, corn, and barley.



Atlantic salmon farm

Fish farming

Canada has the world's longest coastline, the world's largest freshwater system, and the world's largest tidal range, so it's little surprise that aquaculture-also called fish farming—is a natural choice for our country.

Canadian fish farmers raise more than a dozen types of fish and shellfish. The main three species of finfish raised are salmon, rainbow trout, and arctic char; mussels and oysters are the most common types of shellfish farmed in Canada.

B.C.'s salmon industry supports approximately 7,000 jobs, and contributes about \$1.5 billion to the province's economy every year. Three-quarters of the salmon harvested in B.C. every year are raised on farms. Environmental and social sustainability are a priority, and the majority of B.C. salmon farms are certified, or are working towards certification, in independent, globally-recognized standards for salmon production⁵⁹.

Aqua-what? Growing plants with fish

Some vertical farms that grow plants indoors are also raising fish – and using the waste from the fish as fertilizer for the plants. It's an approach to sustainable, circular farming called aquaponics.

How big are animals really?

animal species: **Bison** 907 ka Elk 420 to 600 kg Piq Goat 20 ki 70 to 90 kg Chicken 1.8 to 2.2 kg Turkey 12 to 14 kg Sheep Thoroughbred 55 to 125 kg horse 408 to 498 kg Reef steel 680 kg

Here are some approximate weights of an average, fully-grown male of some common

Humane treatment of farm animals

Caring for livestock properly, sustainably, and humanely is a matter of doing the right thing. Content, healthy animals and birds are more productive, and lead to safer and better quality food.

Farmers are also continually working to improve farm animal care based on new and verified science, and are investing in farm animal behaviour research to understand better the needs of livestock and poultry animals.

Why are most animals raised indoors in Canada?

Although some grazing animals like sheep, horses, and beef cattle can live outside all year, most Canadian farm animals, especially pigs and poultry, live in barns. There, they're protected from extreme weather and temperature, diseases, and predators, such as wolves and coyotes.

Another reason for indoor housing is better animal monitoring and care. It's much easier to ensure that each animal receives the right feed, clean water, and good animal care inside a barn. Many barns now have side walls with curtains that can be rolled up when the weather is warmer, letting in fresh air and sunlight, and some animals spend the summer months on outdoor pastures.



DID YOU KNOW?

Many barns have smart sensors that closely monitor key metrics, such as temperature and humidity levels in the barn, and will instantly text or notify the farmer the moment these conditions change.

Biosecurity

Most livestock farms have very strict rules in place to keep animals from getting sick. In farming, these rules are called **"biosecurity protocols"**, and they're designed to keep diseases from coming into barns.

Farmers keep a record of any visitors to their farms, and what they bring with them, from vehicles to equipment and feed. Visitors to the farm 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 to keep outside germs from entering the barn. At some pig farms, anyone going into a barn has to take a shower before entering, and again when they leave, just to make sure no disease gets in that could make pigs sick.

As with people, it's always best not to get sick in the first place, than having to take medication to get better.



Not enough space?

Farmers know that giving animals enough space is good for their health and well-being. They work with experts like veterinarians and feed nutritionists to ensure that each animal has easy access to feed and water, and room to move and lie down. Science-based research on animal welfare recommends the appropriate amount of space needed for a certain number of animals—in the farming world, this concept is called "**stocking** density".

And sometimes, no matter how much space animals are given, they like to be very close to each other for a greater sense of protection and warmth.

Research is ongoing into the best ways to raise healthy animals while producing safe food and recognizing environmental and economic realities.

Livestock monitoring on the go

Increasingly, farmers can control heat and electricity in their barns from their computers, tablets, or smart phones. The majority of farms also have generators to make sure that their barns have electricity if the power goes out. And a growing number of farms are installing sensors and smart systems to track everything from feed consumption to how many steps a day a cow takes—all in an effort to keep animals healthy.

Dairy Farmers of Ontario



Farmers have been selectively breeding animals for years in attempts to build herds or flocks of animals that are healthier and more productive. This process involves selecting parents that have desirable traits, which offspring tend to inherit. Over time, more animals in the herd will be born with the desired trait(s).

An artificial intelligence system called Ida

analyzes the behaviour of dairy cows to

predict when an animal might become

sick. This can help reduce antibiotic use and increase milk production.

Traits are passed from parents to offspring via one or more genes, which are segments of DNA. Animal geneticists have developed techniques, such as genomic selection, that identify and isolate genes to convey desirable traits such as milk production or disease resistance. These techniques provide animal breeders with the ability to identify and select animals with desirable genes more efficiently.

Some farmers breed their animals naturally, while others may choose a process called artificial insemination (AI). In this case, semen from the male animal is collected and delivered to the female's reproductive tract, to create offspring. Al makes it possible to introduce the best traits available into a herd, even though males with those traits might not live nearby. Al also limits the transmission of disease, and increases safety for the animals and farmers⁶⁰. Farmers can more accurately predict the date that an animal will give birth, so they can provide better care for both the mother and offspring at that time.





Career Profile Animal Care Researchers

Karen Schwean-Lardner and **Bart Lardner**

Karen Schwean-Lardner and Bart Lardner share many things including their children, grandchildren and granddogs to name a few. But they also share a passion for animal care and for passing their expertise onto others. Both earned Bachelor, Master and PhD degrees at the University of Saskatchewan before becoming faculty members.

Schwean-Lardner's work focuses on how good management practices impact the welfare and productivity of laying hens, chickens and turkeys. Her research helped to establish international lighting standards for poultry barns and develop the first enriched housing system for laying hens in North America. She is also passionate about teaching the next generation of poultry scientists.

Lardner's work focuses on applied research in everything from cattle nutrition to forage and pasture management. "I have always felt that I am an intermediary between the farmers and the research community," said Lardner, "It's important that the research can be disseminated to farmers in a way that it can be put to use on their farms."



The rules for raising farm animals humanely

There are currently 16 Codes of Practice for the care and handling of different livestock and poultry species in Canada that spell out best practices for things like housing, feed and water, health care, humane euthanasia, transportation, and more.

The National Farm Animal Care Council oversees the development and updating of these codes based on the best science available and careful input and consideration by committees of farmers, veterinarians, animal welfare experts, and humane society representatives. To see all the codes, and for more information on how they are developed, please visit www.nfacc.ca.

Like all animal owners, farmers must follow laws for humane treatment. Each province in Canada has laws to protect animals from cruelty. Many provinces reference the Codes of Practice within their regulations.

Are controls in place to deal with farm animal abuse?

Absolutely! Animal neglect and abuse of any kind is a crime, and is not tolerated. Farmers and ranchers are responsible for caring for their animals properly and humanely, and must follow all laws and regulations, including the federal Criminal Code, and provincial animal care legislation.

Most farmers and ranchers do a great job caring for animals, but bad situations do happen—and they upset other farmers as much as everyone else.

That's why farm organizations in some provinces have developed their own peer services to help improve farm animal care. Ontario farmers created the first council dedicated to farm animal welfare in Canada over 30 years ago, and similar organizations now exist nationally, in other provinces and in the United States.

All farmers, veterinarians, and others who work in the field are encouraged to call for help or report any welfare problems immediately.

On-farm assessments

Most of Canada's livestock sectors have developed, or are developing, on-farm animal care assessment programs. They include ProAction for dairy farmers, Raised by a Canadian Farmer animal care program for chicken farmers, Canadian Pork Excellence, Egg Quality Assurance, Verified Beef Production Plus to name a few.

Auditing and assessments provide verification that a farm is following best practices, with the goal of finding problems quickly, and continually improving. Failure to follow audit requirements can result in fines, closure to market access, and potentially losing the legal right to produce a product altogether.



Animals on the move

Ensuring livestock and poultry are transported safely and ethically is just as important as caring for them properly on the farm, and is part of responsible animal care. Livestock sometimes move from farm to farm as they pass through their various stages of growth—once piglets born on one farm get big enough, they may move to another to grow to market weight and, of course, they leave the farm to go to market.

Canada is a big country, and sometimes distances between farms or to processing plants are long. The Canadian Food Inspection Agency (CFIA) oversees animal transportation in Canada with regulations around weather, access to food and water, adequate space, maximum travel times, when animals are unfit for transport, and more. They've just updated those regulations for the first time in over 40 years to reflect changes in technology and consumer expectations.

For example, they've reduced the length of time animals can be in transit, and farmers now share responsibility for the animals' welfare with the transporter. CFIA inspectors make sure the rules are being followed.

Transport and technology

Transport Genie is new technology that monitors conditions inside livestock trailers affecting animal comfort and welfare, using a system of smart sensors that provides information to users along the supply chain. It can relay real-time data to the driver, so that actions to correct problems can be taken right away. The Canadian-developed technology is currently being tested in various locations, including with Switzerland's largest poultry producer.



Career Profile

Sara Crawford

Sara Crawford might not look like what you would picture a livestock transporter to look like and she is used to having people look twice when she steps down out of her purple truck and trailer at a farm, processing plant or truck stop. She's been driving livestock trucks and trailers since she was 18 years old (the age when she could get her AZ licence), bought her first truck three years ago and now travels across Canada and the USA taking pigs and other animals to their destinations. Growing up, she wanted to be a heavy diesel mechanic but said that she was also curious about what it would be like to drive the trucks she was learning to fix in a high school co-op course. She took a course and knew she had found her career.

As a livestock transporter specializing in getting pigs from farms to market, Crawford and her colleagues must also be certified under the Transport Quality Assurance[®] program. The program helps transporters, farmers and handlers understand how to handle, move and transport pigs. Crawford is convinced that her colleagues are among the best truck drivers on the roads. Said Crawford, "Livestock truckers have got to be great drivers because we're carrying live animals who need to arrive at their final destination in good shape".



Career Profile Hardware and Software Developer

Idris Soule

"The intersection between farming and technology is a no-brainer."

With experience working for tech-giants like Google and Blackberry, Idris Soule never imaged that he would work in agriculture. But that changed in 2017 when he joined Transport Genie, and helped to develop a real-time tracking system that protects farm animals' health during transport.

It's all about "transparency and accountability along the supply chain," says Soule. "It's gratifying to help give Canadians and people throughout the world the assurance that their food is safe and meets the highest standards of animal health and welfare."

To anyone considering a career in agri-tech, Soule says, "The world is changing quickly, and the tech sector is leading the charge. Agri-tech has the opportunity to transform the food system by bridging the gap between tried-and-true farming practices and technology to benefit all stakeholders, including farmers and consumers."



It is illegal to do anything that causes suffering to an animal at any point during transport⁶¹.



A look at some livestock management practices

Sometimes procedures are done to enhance animal welfare and worker safety. Here are some examples:

Dehorning is the removal of horns from beef and dairy calves. This procedure is for the safety of both the animals and the people working with them. Research has shown that young calves suffer less pain and stress if dehorning is performed when the horns haven't yet developed. Pain control medication must be used when dehorning. Many types of cattle today are "polled"—they are breeds that genetically don't grow horns at all. **Beak trimming** is done to prevent laying hens from hurting each another while establishing the "pecking order" of the flock. The proper procedure is to remove just the tip of the beak when the birds are very young. This is now done with a laser when the chick is first hatched and takes only seconds. Research continues into behaviour, nutrition, and genetics, to look for ways to eliminate the need for this procedure. **Tail docking** is done in sheep to keep manure from collecting on their tails and hindquarters. That's to prevent flystrike, a condition that can occur when flies lay eggs in manure-soiled wool that hatch, and the larvae begin to eat the surrounding flesh. Tail docking can decrease the incidence of flystrike and reduce manure buildup on an animal, which also improves food safety, as there's less chance of contact between meat and bacteria during processing.



New ways of doing things

Research is always under way to find new, better ways to raise the livestock and poultry on our farms—and that's the same for farmers all around the world. An example of a problem in need of a better solution is that of male chicks in the egg laying industry. The females grow up to lay eggs, but males can't. They are from breeds not used for meat (they don't gain weight as quickly or have meat as tender), so there's no role for them to play on the farm, which means they end up having to be humanely euthanized to veterinary standards.

Canadian farmers are working on a solution to this problem. Hypereye is a light-based, noninvasive egg gender identifying technology developed at McGill University that can separate male eggs from female ones when they are laid, so that only female eggs are incubated and hatched into chicks. The innovation is starting to roll out in Canada in 2020.

Fire!

There is nothing more devastating to a livestock farmer as a barn fire and the loss of their animals. In most cases, the exact causes of barn fires are unknown, but many are thought to start with faulty barn electrical systems.

One tool farmers are using is heat-sensing cameras to determine if electronics are in good working condition, and to pinpoint potential hot spots. And wireless temperature monitors can send alerts directly to a farmer's cell phone in case barn temperatures climb too high.



Animal welfare and animal rights – what's the difference?

Why do some groups talk about animal welfare while others talk about animal rights? The two terms have a lot in common, but are really different philosophies along a spectrum concerning all those who care about animals⁶².

Animal welfare: humans have a right to use animals, but also the responsibility to ensure the ethical treatment and wellbeing of animals in their care. This position is the one supported by most people, including farmers.

Animal rights: humans don't have the right to use or confine animals for any reason, including food, medicine, domestication, education, clothing or entertainment.

It can be difficult to sort out the many positions and groups involved with animal care or animal use issues, and farmers are open to respectful discussion and transparency. They are interested in finding new, better ways to raise animals, and they invest a lot of time and money into animal welfare practices, education, and research to make that happen.

If you want to know more about how farmers care for their animals, please just ask—on social media, at farmers' markets on farm tours or at other local events.

Tip: many farmers are on Facebook, Instagram or Twitter, and are more than happy to answer genuine questions about how they raise livestock, grow crops, or produce food. If you're not comfortable asking your question in public, try a direct or private message on one of those platforms.



Farm trespassing and "undercover" operations

Increasingly, Canadian farmers have been faced with animal rights activists trespassing onto their farms, and in some cases, even entering into barns and interfering with animals. Not only does this action cause immense stress to both farmers and livestock; it exposes animals to possible diseases and threatens food safety.

Governments in several Canadian provinces have now introduced laws to protect farmers against this type of trespassing onto private property, and to keep livestock safe from interference during transport.

Another tactic is the release of undercover video footage showing alleged farm animal abuse. At times, individuals filming the undercover footage have been doing so for extended periods of time without taking action to stop abuse or questionable activity. This, too, is unacceptable and should be reported to the proper authorities immediately. Anyone with concerns about animal welfare should notify the appropriate authorities. These authorities have the powers to investigate suspected animal abuse, collect any relevant evidence, and file charges, and are appropriately trained in animal husbandry and handling, biosecurity protocols, collection of evidence, and adhere to a code of conduct. It's important to keep in mind that everything may not be what it seems—and just because something is on the internet doesn't mean that it's true. Misleading messaging and modified images or videos are often a part of anti-agricultural campaigns, and need to be approached with critical thinking in mind.

The bottom line:

There's no benefit of any kind to anyone from mistreating animals. One extreme case is always one too many, but it is far from the norm and does not reflect the quality care that millions of farm animals all across Canada receive every day.

See for yourself!

Experience the many different types of Canadian farms with your home, office or mobile device at **www.FarmFood360.ca** and check out the many virtual farm and food tours available.



Food security, eating local and the cost of food

Farming is a critical part of Canada's national food security, ensuring that our country has enough to eat. But it takes more than farms to feed a country; we also depend on a whole supply chain of feed, fertilizer and equipment suppliers, veterinarians and crop specialists, transporters, processors, distributors, retailers, and delivery companies to get food to Canadians.

Every one of those links in the supply chain must be able to make money in order to stay in business, and that includes farmers. At the same time, food costs have to be kept affordable for consumers.

The cost of producing food

There are many things farmers have to pay for to produce food, like electricity, equipment, water, fertilizer, animal feed, seeds, and fuel, as well as workers to help them raise livestock and poultry and to grow crops.

As with many things, prices for these items continue to go up, so farmers always have to look for new ways to produce more food more efficiently so that they can stay in business. And there are things outside of a farmer's control that impact their business too, like transportation or processing strikes, trade agreements and political spats between countries, weather events, or global crises like the COVID-19 pandemic.

The cost of buying food

It might not seem that way to everyone, but most Canadians are lucky to spend less of their income on food than people in most other parts of the world. On average, we spend about 10 to 11 per cent, or \$0.10 to \$0.11 of each dollar of our disposable income, on food and nonalcoholic beverages⁶³, and by early February, the average Canadian has earned enough income to pay for their individual grocery bill for the entire year.

Compare that figure to Mexicans at 23.4 per cent, Ukrainians at 42.2 per cent, and Nigerians at 59 per cent⁶⁴ and imagine how different your life would be if you had to spend that much of your income on food.



Food insecurity

Even though Canadian food in general is relatively inexpensive compared to other countries around the world, there are still many Canadians who struggle with affordability and accessibility—an issue called "**food insecurity**". "Food deserts" are urban neighbourhoods, or even rural areas, where residents have little or no access to stores and restaurants that provide healthy, affordable foods, and where they may be forced to rely more frequently on convenience stores or fast food outlets⁶⁶.

In northern Canada 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.

•••

DID YOU KNOW?

In Nunavut, the cost of groceries can be three times the Canadian average, with some items costing up to ten times more. The Arctic Research Foundation has set up "grow pods" powered by wind and sun to grow fresh vegetables in the village of Gjoa Haven⁶⁷.



QUICK FACT

The Global Seed Vault on a remote island in northern Norway is home to almost one million samples of food crop seeds, so we can preserve plant life through crises like war and climate change⁶⁸. It's a bit like storing your photos in the cloud or on a backup hard drive, so you'll still have them if you lose your phone!

*Milestone: In 2020, the Cherokee Nation became the first North American Indigenous tribe to donate heirloom seeds to the vault, including a sacred corn used in cultural events*⁶⁹.

Foodbanks serving up food security⁷⁰

There's hunger and need even in a country as wealthy as Canada. Even before the COVID-19 pandemic hit, Canadians were making about 1.1 million visits per month to food banks. A variety of circumstances can lead to food insecurity, including unemployment. But even the number of full and part-time workers who require access to foodbanks is growing, with one in eight people who access these services being employed.

Farmers step up

About 40 per cent of food distributed by Canadian food banks is fresh, like milk, eggs, meat, and produce. A lot of that food is donated by Canadian farmers. Many provincial and national farm organizations have regular food bank donation programs, including grain, fruit, vegetable, egg, dairy, pork, beef, turkey and chicken farmers.



Career Profile Container Farm

ColdAcre

In the far north of Canada where the climate isn't conducive to growing most crops, especially year round, ColdAcre Food Systems specializes in indoor all-season food production in the Yukon. They grow, harvest, and sell more than 30 varieties of leafy green vegetables, microgreens, edible flowers, herbs and mushrooms all year long. Since opening its second shipping container-style growing facility, ColdAcre provides weekly fresh-harvest products for retail, restaurants, and subscription box clients and are already planning expansion for 2021. "There is an enhanced interest and focus in northern markets around locally grown food," said Carl Burgess, CEO of ColdAcre.

They also build customized growing systems and offer training to Northern communities and businesses seeking food security options and opportunities, including residential and commercial clients. "The technology changes quickly and soon these advances will help people to grow a broader array of food at a smaller scales. ColdAcre wants to help set families and communities up for success." said Burgess. He also explained that young people are very interested in the technology and predicts that they will be a driving force behind indoor local food production in the future. It's harvesting in the north for the north.

Photo courtesy of GBP Creative/Gary Bremner

The luxury of choice

In general, we are lucky to have many different choices when it comes to the kinds of foods we can buy. Canadians have the freedom and opportunity to make food choices based not just on cost or availability, but they can also consider environmental concerns, health issues, or ethics.

We can always find whole foods grown and raised in Canada, or foods containing Canadian ingredients at a wide variety of prices, depending on each person's preference and resources. Regardless of the type of diet Canadians follow, or the amount of money they have available to spend on eating, there are farmers willing and able to grow food for them because of the many different types of farms and ways of farming we have in our country.

Looking at labels

Food labels can be vitally important if people have diagnosed dietary needs. However, marketing labels can add a "perceived value" and be misleading at times, so it pays to do a little research when making food choices.

"Natural" meat

All meat is natural since it comes from animals and is not manufactured. The only meat that can legally be labelled as "natural" is meat from animals raised without ANY human intervention of any kind, like wild game. Companies can, however, use the term "natural" to describe flavour⁷¹.

Raised without antibiotics

Meat with a "raised without antibiotics" label comes from animals that have not received any antibiotics at any time in their lives.

Gluten-free

Gluten is a natural protein found in wheat, barley, rye, triticale, and foods made with these grains. Products labelled "gluten-free" are not any healthier; they are just made with ingredients that don't include gluten⁷² which is particularly important for the one per cent of Canadians with celiac disease, or those with gluten sensitivities⁷³. Sometimes a product will be labelled as being "free" of something, like being glutenfree or GMO-free. However, sometimes that product doesn't actually contain gluten in the first place, or GMO versions of that product don't actually exist. These are called **absence labels**, and are used as a marketing tool to make one product look superior to another.

Plant-based proteins are becoming increasingly popular, as people look for alternative protein sources in their diets, or wish to follow a vegetarian or vegan diet, which means eating fewer or no animal products at all. And food producers are responding accordingly with products like plant-based burgers and "chik'n" strips made from pea, bean, or soy proteins, egg substitutes made from mung bean, and milk-style beverages made using oats, soy or nuts like almonds or cashews. Some producers and restaurants are offering "blended" products that contain a mixture of plant and meat proteins. Another emerging field is **cellular agriculture**. This occurs where researchers are producing meat and dairy products in laboratories using only animal cells instead of the animals themselves, using tissue engineering technology that is used in regenerative medicine.





Why is organic food more expensive?

Organic farming poses unique challenges as some tools available to other farmers are not available to Canada's certified organic producers. Generally speaking, foods labelled as organic are grown or produced without the use of tools such as synthetic (man-made) fertilizers or pesticides, genetically modified organisms, growth hormones, or medications like antibiotics.

As a result, organic farming methods tend to be more labour-intensive, and organic food products are often grown, processed, and packaged at smaller volumes. Organic livestock production in particular has higher costs than conventional —organic feed isn't as readily available, so it costs more; housing is more expensive because the stocking density is lower in a barn, animals need access to the outdoors and there aren't as many organic dairies and abattoirs⁷⁴.

Organic production systems also generally yield less food than conventional production. While organic production may support ecological health on a local scale, there is debate around the idea that lower productivity could mean more land will be needed to produce the same amount of food. The argument is that this difference could actually cause greater global environmental impacts than conventional production⁷⁵.





This logo indicates a product meets Canada's organic standards

Why do people buy organic?

Many consumers associate organic food with a healthy lifestyle and some studies have shown higher levels of beneficial omega-3 fatty acids in organic meat and milk, and more antioxidants in organic plant-based foods⁷⁶. All agricultural food products—meat, eggs, dairy, fruits, vegetables, and others—are rich in nutrients, though, and are part of *Canada's Food Guide*.

Whether organic or conventional (non-organic), all food in Canada must meet the same food safety standards. Organic farmers can in fact use naturally derived pesticides to control pests. Just as with crop protection products used by conventional farmers, however, these substances must be approved by the Pest Management Regulatory Agency, which is part of Health Canada. Canada has some of the strictest food safety regulations in the world, so regardless of how the food you choose has been grown, you can be confident that it is a good choice.

Trusting the organic food you're buying

All Canadian products using the *Canada Organic* logo have been certified by an independent auditor, who verifies that the farm meets the Canadian Organic Standard. These are the rules which organic farmers must follow, and they are regulated by the Canadian Food Inspection Agency. Organic farms are inspected annually to make sure that they're still meeting the standard.

For imported products to be sold and labelled as organic, they must meet "equivalency arrangements" by which the regulations and certification process of another country are deemed consistent with Canada's⁷⁷.



Career Profile Registered Dietitian

Michelle Jaelin

Raised in the Greater Toronto Area, Registered Dietitian Michelle Jaelin said she grew up not knowing anything about agriculture or the potential of having a career in that industry. She'd never met a farmer and there certainly weren't any farms nearby.

She studied nutrition and food at Ryerson University. While there, she attended a food conference and met people working in the industry. Later, she was invited on a farm tour and said she was fascinated to learn how food was grown.

One of Jaelin's biggest frustrations is that while there is a lot of information out there, it's not all good or accurate. Sadly, it's also easier to sell fear than to sell reassurance. She said she often gets questions like, "Is this safe to eat?" "Is this healthy?" "What's the difference between organic and conventional?"

In her career, she uses a combination of social and traditional media and other communications tools to help people make more informed food choices. She said it's extra rewarding to do a TV segment and then get a nice follow up comment from a viewer. She says, "It's great to be able to give people information that helps them make their lives better and healthier through food".

How do I know what the right choice is?

There is no right or wrong answer for consumers when it comes to deciding what to eat. What's important is making an informed decision based on current, accurate facts. Unfortunately, there is a lot of misinformation out there that can make it difficult to know what's true and what isn't—so if you have questions about your diet, consult your doctor or a registered dietitian.

Dietitians work within hospitals, grocery stores, doctors' offices, and in private practices to provide personalized nutritional advice and practical solutions, without fads or gimmicks.

Eating yourself healthy

The link between food and health is well known. Foods rich in essential vitamins and minerals, fibre, antioxidants, omega-3 fatty acids, and other compounds, can help keep us healthy—and science is finding new ways to make good-for-you foods even better:

- A purple wheat variety from Saskatchewan called "AnthoGrain[™] wheat" is high in anthocyanins, an antioxidant that aids in eye cell repair⁷⁸.
- Specialty canola varieties with higher levels of omega-3 fatty acids are in development. Omega-3 fatty acids are essential to brain, eye, and heart health, and inflammation management⁷⁹.
- To prevent stunted growth in children due to malnutrition, a rice variety high in zinc is now available in Indonesia⁸⁰.



What is supply management?

To organize the production of eggs, chicken, turkey, and dairy products in Canada, farmers use a system called **"supply management"**. It lets farmers across Canada match their production to Canadian demand, so consumers have a reliable supply of fresh, high quality food at a reasonable price, and farmers receive fair and stable returns for their work. Supply management does not set retail or restaurant prices for poultry, eggs, or dairy products, but it does ensure that farmers are paid enough to cover their costs of production.



Loving local

Buying and eating local food is very popular in Canada. The definition of "local" varies, however, and can refer to a region, province, or even the entire country.

The local food movement has resulted in more farmers' markets, local food stores, and food hubs in all parts of Canada, and "buy local" campaigns encourage Canadians to support farmers and food producers in their areas by eating the fruits, vegetables, meat, cheese and yogurt, jams, honeys, or other goods that they've produced.

Not only does that support jobs and businesses in local communities, it can also reduce food's environmental footprint if a product comes from a farm 20 minutes away, as compared to being shipped thousands of kilometres.



Food imports and exports

Every crop is ready for harvest and eating at a different time of the year. In Canada, asparagus is one of the earliest-harvested vegetable crops in the spring, and peaches are a popular summer favourite.

You might not notice the seasonality of these crops though because today, we can buy imported strawberries, asparagus, or sweet corn at the grocery store all year long.

And there are other foods we love that we can't grow here at all, like coffee, pineapples, cocoa, and avocadoes, so we import them from countries that are able to grow them.

We also produce much more of certain types of foods than we could possibly eat here at home—like pork, beef, lentils, peas, chickpeas, canola, soybeans, or wheat—so we export to other countries where they're an important part of people's diets.





llona Daniel

Chef

As a child of Hungarian and Armenian immigrants, meal time has always been important to Ilona Daniel. She can't pinpoint exactly what inspired her love of food, but fondly remembers "sitting on the counter while my mother cooked a meal that was always too big for our family, and absorbing everything I was seeing." She added, "It was almost as if I was learning to cook through osmosis."

Daniel moved to Prince Edward Island twelve years ago to attend the Culinary Institute of Canada on a full scholarship. Now, an instructor there, her experience has come full circle. In addition to teaching, she runs a culinary consulting business and contributes regularly to print and television media.

Her love of PEI has only grown stronger over the years, and she attributes some of that to the more intimate connection that islanders have with their food. "Everywhere you look there is a constant reminder of how food is produced," she said, "people who grow and produce our food are deeply passionate, and their expertise spans their lifetime. Connecting with them helps us understand just how important our role is as consumers."

Canola seed



Peach farmer cultivating between rows of peach trees

The farm labour challenge

A big part of the economics of producing food is labour. Just as with other businesses, farmers often need to hire extra people apart from family members to help get everything done. Technology and equipment are helping to make some work easier, but people are still the most important part of producing food on the farm.

Farm jobs aren't like most other jobs. Cows have to be milked every day, and crops have to be harvested when they are ripe, or else they'll lose their taste and quality, or even just rot in the field or on the vine. That means workers can't just stop working because it is the weekend, or because the weather is bad.



Mechanical blueberry harvester

Career Profile

Oresta Hewryk

Oresta Hewryk was raised in New York City, but when it was time to go to university, studying in Canada was an easy choice because of her dual citizenship. She was initially interested in becoming a veterinarian, so she enrolled in the Ontario Agricultural College's Animal Science program.

Although Hewryk had little experience with farms or with farmers, she appreciated the sense of community and support she found with her fellow "Aggies". "Not many other programs have students that are so close-knit. We have so many opportunities to learn from each other and grow as a group," she said.

Hewryk is currently in her third year of the program's research stream, but shifted her focus to plant science after a rewarding summer job working in one of the University's research labs. She plans to pursue graduate studies in plant genetics. Her goal is to teach students like herself in the future with the hopes of inspiring them to explore all of what the agricultural sciences have to offer.

More than just a job

Working in agriculture is much more than growing crops or raising livestock, though. One in eight Canadian jobs is linked to agriculture⁸¹; from communications, engineering, and economics, to food and animal sciences, tourism and the environment, the career possibilities are endless.

There are many more jobs available in Canadian agriculture than people to fill them. There are currently more than 60,000 vacant jobs in the sector, and in ten years, the industry could be short 123,000 people⁸². The Ontario Agricultural College in Guelph, for example, estimates there are approximately four jobs for every one of its graduates going into the agri-food sector.

Agriculture in the Classroom Canada, and its provincial member organizations across the country are working to introduce these exciting career opportunities to students to support the long-term sustainability of the sector. You can also read the career profiles throughout this magazine to see a sampling of the diversity of options available.

A helping hand from away – seasonal and temporary foreign workers in Canada

Fruit and vegetable farmers in particular rely on many people to help them plant, manage, and harvest their crops; most bruise or damage easily, so they still need to be cultivated and picked by hand. Even though robots are being developed to harvest crops or scout for pests and diseases, those tools aren't readily available yet.

Canadian farmers who can't find enough local employees rely on guest workers from other countries to work on their farms. They come to Canada under various programs. like the Seasonal **Agricultural Workers' Program** (SAWP) and the **Temporary Foreign** Worker Program (TFWP) program. These programs are essential because on-farm agriculture has the highest job vacancy rate of any industry⁸³. This circumstance is largely due to the seasonal nature of the work, as well as the fact that most Canadians live in urban centres, far from the farms where workers are desperately needed.

The solution to these challenges has been, in part, the SAWP, which was established more than 50 years ago to bring workers from Mexico, Jamaica, Trinidad and Tobago, Barbados, and other Eastern Caribbean countries to work on Canadian fruit and vegetable farms. Workers stay for the growing season, and

go home to their families for the winter months.

Strict rules imposed by both the workers' home countries and the Canadian government must be followed by both farmers and workers in order to be part of SAWP. Workers on the program have the same workplace protections as Canadian workers, including minimum wage, health care, and workplace insurance coverage, and access to Employment Insurance, from the moment they arrive in Canada.

Many of these workers have been coming to the same farms for years and have become highly-skilled in these specialized tasks, and the money they earn helps take care of their families and support their communities. In some cases, they've been able to set up businesses at home that create local jobs and send their children to university. Without their help, many Canadian farmers wouldn't be able to grow the local fruits and vegetables that we love.

During the COVID-19 pandemic, many international workers were unable to get to Canada to work for the season. Although farmers tried to hire local workers to replace them, many crops were either not planted at all, or could not be harvested, as in the case of perennial crops like asparagus or strawberries.

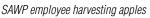


Career Profile Seasonal Agricultural Worker

Trinidad Vargas Sanchez

Trinidad Sanchez has been coming to Canada from Mexico as a Seasonal Agricultural Worker for 31 years, always returning to Holland Acres, a farm owned by the Van Luyk family in the Holland Marsh region of Ontario. He arrives each April, returns home in mid-November and now leads the team of employees that helps to grow the farm's crop of carrots, onions, parsnips and beets. He's now accompanied annually by his son Eddie and son-in-law Juan. He says that work in Canada has given his family a lot of opportunities. Even though he misses his family when he's away, he looks forward to returning to Canada each year.

TFWP employee harvesting mushrooms







Environment, climate change and sustainable farming

Farmers are on the front line of our environment every day and they know first-hand how important healthy soil, air, and water are to growing crops and raising livestock successfully.

They're also among the first to experience and be forced to adapt to our changing climate from more frequent extreme weather events, drought and disease.

That's why, more than ever, sustainable farming is the name of the game—regardless of the type, size or style of farm.



Strip of pollinator-friendly flowering plants, including Phacelia, planted at the edge of a farm field as part of the Operation Pollinator program

Investing in change for the better

On their own, through farm organizations, and with government, Canadian farmers invest heavily in environmental research and sustainable farming practices.

Success story: the Environmental Farm Plan helps farmers across Canada to identify where environmental improvements can be made on their farms, and to set goals and deadlines to complete them, such as establishing buffer strips along water courses; reducing soil erosion by planting trees and cover crops and supporting pollinators by planting wild flower strips. The program has been so successful that some of its elements can now be found in processor and retailer food system sustainability plans.

How good were the "good old days" really?

Environmental degradation is not a phenomenon of "modern" farming. The dust bowl of the 1930s, for example, was caused by a combination of a lengthy drought, and working or tilling the land too much, which caused topsoil to be blown away by strong winds. Back then, fighting weeds and pests often involved plenty of tillage, and naturally occurring but toxic pest control substances like sulphur, mercury, and arsenic compounds were also commonly used.

Today's products are safer and much more tightly controlled and regulated by government, and we know so much more about soil health, pest and nutrient management, and sustainable crop production.

Where does soil come from?

There are 10 main soil orders in Canada, which are then divided into groups, families, and series, to cover hundreds of different soil types across the country. The Soils of Canada website, developed by a network of Canadian soil scientists, is a great place to learn more about soils across the country: **www.soilsofcanada.ca**.

All those different Canadian soil types are directly linked to how glaciers moved during the last Ice Age. About 12,000 years ago, glaciers slowly ground rocks into finer particles as they moved south, and when the glaciers retreated, they left that sand and gravel behind in the soil. Combined with climate, and annual cycles of plant and animal growth and decay over millions of years, that process has built Canada's soils into what they are today.

The type of soil found on a farm— and how farmers look after it—will influence what crops a farmer can grow, and how they'll be grown.



Isn't soil the same as dirt?

In a word, no! Soil is a living environment that's ideal for growing crops. It's a complex mixture of small particles of sand, silt and clay, decaying plant residue, earthworms, bacteria, fungi, insects, and micro-organisms. In fact, there's a whole fascinating world under the ground that's just as important to producing food as what's above ground—and farmers, soil scientists, and others are just starting to learn about soil microbiology and how it influences the ways in which plants grow.

Dirt, by comparison, is simply dead soil. As such, the title of this magazine should maybe have been *The Real Soil on Farming!*

....

DID YOU KNOW?

It can take between 100 and 500 years to build two centimeters of topsoil. Sustainable tillage helps rebuild topsoil by slowly adding organic matter from the previous year's crop⁸⁴.

Soils have unique characteristics that can influence the flavour and character of grapes and wines. Wine lovers call this effect "terroir".

Why organic matter matters

Organic matter in the soil includes decaying plants, microbes, bacteria, and other microorganisms. It's a great nutrient source, a habitat for soil organisms, and improves the water-holding capacity of the soil. The more you have, the healthier your soil—and the healthier your soil, the more productive it will be for producing food.

Listening to what the soil is saying

Farmers have long been sampling their soils to know how much fertilizer or manure they need to apply. But new soil sensing technology is providing a whole new picture of what's underground. SoilOptix^{®85} uses a sensor mounted to an ATV or a truck to measure gamma radiation emitted by the natural decay of soil. High resolution digital maps of each field show their chemical and physical properties. More information about what's not visible to the human eye means better soil health decision-making for farmers.

Growing crops without working the land = win-win

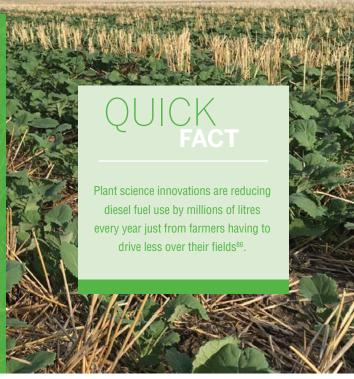
Today, farmers widely use crop growing methods like conservation tillage (working the soil as little as possible), strip-till (only working a narrow strip where seeds will be planted) or no-till (not working the soil at all).

With strip-till and no-till, leftover material like roots and stalks from the harvested crop are left in the field, and the next crop is planted directly into that ground-covering material.

These types of tillage give the soil more structure and nutrients, prevent soil erosion, improve water conservation and flood management, and promote populations of beneficial insects and microorganisms.

Bonus: no-till isn't just good for the soil; it's also less work for farmers, and because they're using less fuel to prepare a field for planting, there are fewer greenhouse gas emissions too. By following these farming methods, farmers are actually taking greenhouse gases out of the environment, and putting them into the soil through a process called carbon sequestration. This process results in some areas of the Prairies now being net zero greenhouse gas emitters.

New crops that are tolerant to specific herbicides can have environmental benefits as well, because farmers growing these crops can use a spray to kill weeds, instead of having to churn up the soil to get rid of them.



Mixing it up a little in the field

As part of sustainable farming, most farmers grow one type of crop in a field one year, a different one the next, and yet a different one again in the following year, instead of just growing the same crop in the same field year after year. That process is called **crop rotation**.

Every crop is affected by specific pests and diseases, and rotating crops reduces those risks. It also lets crops with different types of root structures pull nutrients and moisture from different soil depths, so the soil stays healthy and productive.

Farmers across Canada use different crop rotations, depending on where they farm. In Prince Edward Island, a typical rotation cycles potatoes, grain (such as wheat or barley) and forages (grasses to feed cattle). On the Prairies, by comparison, it's common to grow grain (oats, wheat, or barley), then oilseeds (canola, flax, or sunflowers) followed by legumes (field peas, beans, lentils, or chickpeas).



Strip-tillage in a canola field

Working with nature to keep crops safe

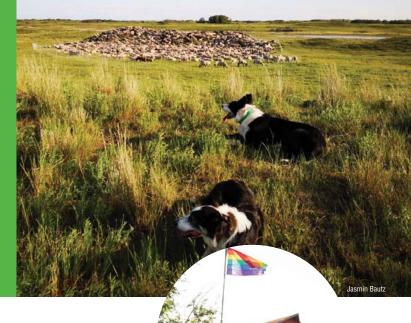
Many farmers use a system called **Integrated Pest Management** (IPM) to suppress and manage diseases, insects, and weeds in an effective, economical, and environmentally sound manner. They closely watch fields and orchards to identify pests, and know when they need to take action to protect the crop. Farmers then make strategic use of a variety of biological, physical, cultural, mechanical, behavioural and chemical treatment tools, to reduce pest populations to acceptable levels. Equally important is evaluating the effectiveness of the treatments.

By using IPM, farmers use all the best available pest management strategies, including practices of good land management, using natural enemies, planting certified seed, and keeping pests at bay with physical barriers, such as screens or netting.

One popular IPM tool, particularly in greenhouse production, is biological control, which can also be described as using "good bugs to fight bad bugs".

Livestock are a part of healthy soil

Healthy, living soil is critical for growing productive crops in a sustainable way—and livestock play an important part. Farmers apply manure to the soil to put natural fertilizer back into the ground, and sheep or cattle graze grasses and cover crops. It's also common for farmers who don't have livestock of their own to buy manure from neighbouring farmers to put on their land.



A living ground cover

One way by which farmers keep their soil healthy is by growing **cover crops**—plants like clover, rye, sunflower, radish, and others that farmers plant in the field after they've harvested their main crop. Their job? Just as their name says: to keep the ground covered. This step reduces soil erosion, keeps moisture in the soil, and keeps nutrients from fertilizer and manure from being washed away into streams, lakes and rivers.

Some farmers use cover crops as animal feed by letting livestock graze in those fields in the fall.

A long-term approach to soil health

Part of sustainable farming means leaving behind productive land for future generations. Some farmers have adopted an approach to soil health referred to as **regenerative agriculture**⁸⁷. Here, the emphasis is put on taking steps to improve soil health over time. Key principles include minimizing soil disturbance, integrating livestock to improve soil health, maximizing crop diversity and soil coverage to improve the water and mineral cycle, and reducing the impact of climate change through more **carbon sequestration**. During photosynthesis, plants release oxygen and remove carbon dioxide from the atmosphere. This captured carbon dioxide can be stored in organic matter in the soil—a process called carbon sequestration⁸⁸.

Planting radish in strips, also known as "biostrips", loosens the soil where crops will be planted next spring without using mechanical tillage.



Career Profile Sheep & Beef Farmer

Stuart Chutter

Stuart Chutter knows the value of diversity both on and off the farm. As a gay man working in agriculture, he is aware of the stereotypes that are placed on farmers and rural communities. "Just like there is no one way to farm, there is no one way to be a farmer," said Chutter.

He raises sheep and cattle on his farm near Killaly, Saskatchewan, but if you ask him what he farms, he would tell you it's 'soil'. He practices regenerative agriculture, which focuses on soil health, something that Chutter believes is vital to raising healthy animals and producing high quality protein.

His animals graze a mix of forage species including oats, turnips, millet, radishes, clovers and sunflowers. But regenerative agriculture isn't about a specific set of rules says Chutter, "It's a way of thinking that focuses on soil health as a complex system, and how plant and livestock species have an important role to play in that system."

Chutter believes that diversity in agriculture will make it more resilient and better positioned to attract new people to the industry. "In my experience, rural people and farmers make world-class neighbours and allies."

Photo courtesy of Jenna Loveridge Photography

Common question: pollinators, bee health and neonicotinoids

Honey bees, bumblebees, and many wild pollinators play a critical role in the production of fruits, vegetables, and other crops. They pollinate blossoms on plants, turning them into apples or pumpkins, for example.

Although data shows that the number of farmed beehives is on the rise in Canada⁸⁹, there is concern about higher than normal bee deaths in some parts of the country, as well as in Europe and the United States.

Many factors can impact bee colony health and cause bee death, such as long winters, cold temperatures, inadequate nutrition, or pests and diseases, such as a parasitic mite called *Varroa destructor*, which has been devastating to Canadian honey bee colonies⁹⁰.

A lot of attention has been focused on **neonicotinoids**, a class of insecticides used on corn, soybeans, and canola (often as a seed coating), as well as in pet flea collars and home garden products. In 2019, after an extensive re-evaluation of process, Health Canada determined continued registration of products containing neonicotinods is acceptable with risk mitigation measures to help protect bees and other pollinators including cancelling some uses of these insecticides, and changing other conditions of their use such as restricting the timing of application⁹¹. But even before the required use amendments, farmers were already taking action to adapt their planting practices to protect bees and other pollinators—such as adding dust deflectors on their planters to minimize seed coating dust, and using new techniques to ensure that the pesticide coating stays on the seeds.

As wild spaces are lost to residential development, it's also great to see so many people including wildflowers and pollinator gardens at their homes. Farmers are using pieces of their land that cannot grow crops in order to create pollinator sanctuary spaces as well.



Career Profile

Dr. Jess Vickruck

Originally from the Niagara Region of Ontario, known for its abundance of orchards and vineyards, Dr. Jess Vickruck is no stranger to the important role that pollinators play in growing food.

"In the spring, I love to visit an orchard in bloom and listen to the hum of the trees that are alive with all of the different species of insects."

She was interested in insects from a young age but it became a serious passion midway through university when she took her first entomology class. She went on to complete Masters and PhD degrees, and research wild bee species in Ontario and Alberta. Today, she is a research entomologist with Agriculture and Agri-food Canada in New Brunswick, where she lives with her husband and two young sons.

Her research looks at how farmers can manage their land in ways that promote biodiversity while reaping the pollination benefits of high wild bee populations. "We have only scratched the surface of what we know about bees," she explained, "there are over 800 different species in Canada and we still know very little about the vast majority of them."

QUICK FACT

A honey bee travels the equivalent of 80,000 km for one pound of honey, at an average flight speed of 24 km per hour⁹²!





There are more than 800 different species of wild bees in Canada. They are often small (less than two centimeters) and can be blue, green, purple, black, black, yellow and red!



Solar panels on an egg barn

Farming sustainably with a technology tool box

As the climate changes, and extreme weather becomes more common, farming is becoming more challenging. Luckily, farmers can rely on technology to help them adapt to ever more sustainable food production:

- New and more rapid plant breeding methods are leading to crops that are more tolerant of pests, drought, heat, excess moisture, and frost.
- An air sampler placed in fields or vineyards captures fungal spores from the air, and gives farmers an early warning about possible fungal diseases, so they can take quick action to prevent damage to their crops⁹³.
- A smart irrigation system for potted greenhouse flowers only waters crops when the crops 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 distinction can reduce pesticide use up to 90 per cent⁹⁴!
- Special maps show where a field "yields" the most, i.e. identifying which spots are most productive. That information is used to create a fertilizer prescription that helps farmers only to apply fertilizer where the map tells them the soil will use it best.
- Farmers are using drones and robots to help identify pest or disease problems or herd livestock.

Greener energy on the farm

Farmers are always looking for new ways to heat their barns and greenhouses, both affordably and sustainably. They're installing solar panels and wind turbines to generate electricity—even anaerobic digesters that make methane from organic material, including food waste. Some farmers use the electricity they generate for their own farms and homes; others sell it back to the grid to power homes, businesses, and industry, in urban areas.



Running farm equipment from space

Many Canadian farmers rely on precision agriculture technology to manage field work like planting, applying nutrients, spraying, and harvesting. Satellite-controlled GPS on tractors and equipment ensures that fertilizers and sprays are applied in the right amounts to the right places, and that crops are planted in straight, even rows. This precision reduces fuel consumption, and makes sure that nutrients, seeds and crop protection products aren't wasted.

Growing fields of fuel

Ethanol is a clean, renewable fuel made from plants (mostly corn) that is blended into gasoline. Biofuel is a diesel fuel substitute made from canola or soybean oil and blended with normal diesel. Both lower greenhouse gas emissions, and are just some of the many ways by which plants and plant residues are being used for more than just feeding people and animals.

Farming's carbon footprint

Greenhouse gases (GHGs), including carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O), absorb radiation from the sun and trap heat in the atmosphere, effectively acting like a greenhouse or a layer of insulation for Earth. GHGs are part of the earth's natural processes, but human activities over the last several centuries have increased GHG levels far past where they should be. This change has very negative consequences for our climate, including increasing global temperatures, and more frequent episodes of severe weather.

 CO_2 is produced by farm equipment. It's also released when soil is disturbed, or when plants decay. N₂O emissions are primarily a result of fertilizer use, including manure. Methane is a natural by-product of digestion in the stomachs of ruminants, as well as from manure from farm animals.

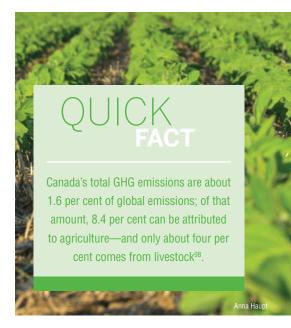
GHG emissions from Canadian agriculture have stayed about the same for the last

20 years⁹⁵, even though food production has increased dramatically. That status is mostly because farms have become more efficient—they're able to grow and raise more food while using less land, water, and fuel. This change also reflects the increased carbon sequestration in crop land. Canadian farmland, particularly in the Prairies, captures more carbon than it releases. That makes it a **carbon sink**⁹⁶.

The environmental impact of raising livestock can vary a lot. Feed quality, genetics, and the part of the world in which the animal is being raised, are just three factors. Modern advances in genetics, nutrition, and other areas of science have led to more environmentally-efficient animals, and farmers and scientists continue to work towards reducing the amount of methane produced by livestock.

Consider this fact: Today, every kilogram of Canadian beef is produced using 17

per cent less water, 24 per cent less land, and generates 15 per cent less greenhouse gases, than the same amount of beef produced 30 years ago⁹⁷.



Livestock as part of the solution

Sustainably-managed livestock populations are also very much part of the solution to the climate change challenge, and play a significant role in our ecosystems.

Less than eight per cent of Canada's land is used for agriculture. The rest has been developed as an urban landscape, is forest or shrubland, or is very difficult to impossible to grow crops on (think Arctic regions). But livestock can flourish on terrain that's too rocky, hilly, wet, or dry. That gives farmers the opportunity to produce food in places where crops can't grow. Temperate grasslands, like those found in the southern parts of the Prairie provinces, are among some of the most endangered ecosystems in the world. They support biodiversity by providing widely ranging wildlife habitats, hold water during floods, and provide drinking water for people and wildlife. And because the land is not worked, the carbon captured by plants and put into the soil stays there as long as the land remains intact.

Unfortunately, less than 20 per cent of Canadian grasslands remain intact—most have been built over, or used for growing food⁹⁹. Once these grasslands are lost, it is nearly impossible to replicate them.



How cattle are saving our native grasslands

Many of the native grasslands that still exist in Canada are actively-grazed pastures, where cattle mimic the natural ecosystem processes required for the prairie to remain prairie. Grazing prevents over-growth of dominant plant species giving other important species a better chance to flourish. It also minimizes fire risk by reducing dry grasses and brush. The manure that livestock leave behind is also a valuable organic fertilizer that helps build organic matter and enrich the soil.

The Species at Risk Partnerships on Agricultural Lands (SARPAL) is an Environment and Climate Change Canada initiative, working with farmers to support the recovery of species at risk on agricultural land. In Manitoba, for example, the initiative has led to partnerships between beef farmers and conservation groups, in order to recover habitats for specific species at risk, including bird species like the ferruginous hawk, loggerhead shrike, and burrowing owl¹⁰⁰.

Other livestock are also raised on these habitats. Wildlife such as deer, ducks and pollinators utilize healthy grasslands for their life cycle too.



Burrowing owl

Going the extra mile for wildlife

Many farmers plant native grasses as buffer zones around water bodies, to protect land and aquatic habitats. Seeding strips of flowering plants for pollinators is also common. And to ensure that soils remain fertile and covered with new plant growth, livestock farmers move their animals from pasture to pasture—a practice called **rotational grazing**.

Some farmers will also delay cutting hay crops to give nesting birds a chance to hatch their young safely. Others build habitats for snakes—called hibernacula—or install boxes for owls and bats on the farm. These and many other practices help sustain wildlife populations, protect species at risk, and promote biodiversity.



Career Profile Beef Farmer

Ben Campbell

Grazed Right Ranch, owned by Ben Campbell and his family, sits on Alberta's native grasslands. Here, they produce high-quality beef by raising their cattle on pasture year round.

Grazing cattle can support the grasslands which provide a number of ecosystem services, such as carbon sequestration, flood mitigation and wildlife habitat. Campbell rotates the cattle onto new pasture regularly, spreading manure that helps build organic matter, and promoting the growth of important, but less competitive plants species. He's created buffer zones around ponds and sloughs that serve as a duck nesting habitat and filters surface runoff before it enters the water bodies. "We hope to pass the farm onto our children, which is why protecting it and the planet through sustainable agricultural practices is so important."

In the recently-released documentary *Guardians* of the Grasslands, Campbell explains how the grasslands sequester millions of tonnes of carbon. His ranch alone can store 39,000 tonnes of CO_2 equivalent, which roughly equals the emissions that 2,000 Canadians produce in a year.

And they don't keep the beauty of the Canadian grasslands all to themselves. Only a short drive from Calgary, the ranch is perfectly situated to reconnect customers with where their food comes from. "We are happy to invite our customers for a tour, by request, so they can see firsthand how the cattle are raised and the land is cared for," said Campbell.

Manure, fertilizers, phosphorus and water

Manure is an excellent source of fertilizer for the soil, but nutrients like phosphorus can contaminate water if they're not applied and managed properly. Farmers have to follow a lot of rules when it comes to managing nutrients—from manure or fertilizers—on their farms. That diligence includes picking the right location for constructing new farm buildings away from neighbours, water, and wetlands. It's also important to have enough storage to store manure safely over the winter months; manure shouldn't be spread when the ground is frozen, because it's more likely to be washed away by rain and melting snow, instead of going into the soil.

4R Nutrient Stewardship is a program that's been developed to let the world know when food has been grown sustainably. It balances farmer, industry, and government goals to improve crop productivity and fertilizer efficiency, while also benefitting the environment. How? Through the "4Rs"–Right Source @ Right Rate, Right Time, Right Place[®]: putting the right type of fertilizer at the right amount in the right spot at the right time for it to be most effective¹⁰¹.



What about water?

There are many different ways to calculate how much water is used to make different food products—and a lot of them can be misleading, like the claim that it takes thousands of litres of water to make one burger patty.

Yes, beef production does use water, but most of that water actually ends up back in the environment through manure or water vapour. This process is known as the water cycle, and it means water is just being used and re-used, and not lost forever, as it merely goes back into rotation¹⁰².



Using water to grow crops

Some crops—most often fruits and vegetables—need more water to grow properly than just what they get from rain. The process of supplementing with more water is called irrigation, and there are a variety of technologies farmers use to make sure that their crops have enough water, and that they don't use more than they need. In greenhouses, water used for irrigation is collected and reused, ensuring sustainable use of this important resource. Irrigation supports 40 per cent of our global food supply; in Canada, it's only used by about 8.5 per cent of all farms¹⁰³.

Even though Canada is home to 20 per cent of the world's fresh water, its availability and quality are important issues for Canadians, especially as the climate continues to change. That's another reason why sustainable farming practices, and using water in balance with the environment, are becoming more and more important.

Irrigating strawberry plants

What about plastics and packaging?

There's no denying that a lot of single-use plastics are used across the food supply chain. But as awareness grows about their harmful environmental impacts, farmers and food producers are taking action to use less or different products and to recycle where they can.

Many farmers wrap hay bales in plastic wrapping to help preserve the crop, but figuring out what to do with the wrap once it's no longer needed has always been a challenge. Farmers in Northern Ontario, for example, are involved in a pilot project to recycle the material into light diesel fuel¹⁰⁴.

An organization called Cleanfarms has spearheaded the recycling of more than 126 million plastic agricultural containers into new products, instead of then going into landfills¹⁰⁵.

And the Canadian Produce Marketing Association has set up a plastics packaging working group to determine how to reduce the use of plastics without compromising produce quality or safety. Examples include biodegradable food wrappings, or moulded fiber punnets and trays for cucumbers, berries, mushrooms, and tomatoes¹⁰⁶.

Wrapping a greenhouse cucumber in film increases its sellable shelf life from around three days, to 15 to 17, because the film limits how the vegetable breathes and keeps it hydrated, thus reducing food waste.

The food we waste

According to the United Nations, one-third of all the food we produce is lost or wasted each year¹⁰⁷. **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.

A 2019 study estimated that 11.2 million metric tons of avoidable food loss or waste occurs across the food value chain in Canada—equivalent to a value of \$49.5 billion¹⁰⁸. The average Canadian household wastes about 140 kg of food annually, the equivalent of throwing out more than \$1,100 each year. That amounts to almost 2.2 million tons of edible food wasted each year, costing Canadians more than \$17 billion¹⁰⁹.

Farmers and food producers, particularly in the produce sector, are investing in solutions to help reduce food waste, like smart sensors and intelligent packaging that extend shelf-life.

They're also finding creative ways to find new uses for food waste, like producing environmentally friendly energy, using an extract from mushroom stems to create a natural preservative¹¹⁰, or using the high-in-antioxidants coffee cherries—the fruit whose pit is the coffee bean and is discarded once the bean is extracted—to make a type of tea. Livestock can be fed by-products of human food production, like distillers' grains (waste from brewing and ethanol production), canola, and soybean meal (what's left after the oil has been removed) or beet pulp that's leftover after sugar beets are processed to extract sugar.

Here are some things you can do at home to reduce food waste too:

- Ask for smaller portions
- Keep leftover food for another meal
- Buy "ugly" fruits and vegetables—they are just as good to eat as the pretty, regularly shaped ones!



Career Profile Product Development Specialist Sustainable Packaging

Luci Faas

Before moving to Ontario in 2008, Luci Faas lived and worked in many different places, including Japan and the USA. Faas studied environmental education in university and has carried that passion into her work as a Product Development Specialist with Nature Fresh Farms, a large greenhouse near Leamington, Ontario. "Environmental stewardship can be personal," said Faas, and that "making small choices in your daily life that are more sustainable can make a big impact." That's why developing a newly launched 100 per cent Home Compostable Cucumber Wrap has been such a passion project for her. The compostable wrap both prolongs the shelf life of the cucumbers, while reducing harmful plastic waste; it was recently announced as a finalist for The Sustainable Packaging Coalition's 2020 Innovation Awards.

Faas enjoys the unique challenge of collaborating with many other departments including marketing, operations and quality assurance to research and test new packaging concepts, with a special focus on finding more sustainable options. "It's rewarding to find a solution that is environmentally-friendly, and that doesn't compromise the quality or become too costly for the consumer."

Photo courtesy of Nature Fresh Farms



vegetables produced in the world are never actually eaten—they're just wasted¹¹¹.

Healthy and safe food

Safe, quality food choices are something most Canadians don't have to think about very often. The shelves in grocery stores and farmers' markets are rarely empty, and we don't have to worry about whether what we're eating is safe.

That's because there are regulations and safety systems throughout the Canadian food chain, and ultimately, safe food starts on the farm, with farmers.

Food safety rules for farmers

Just as with other food businesses, farmers follow the rules of food safety programs based on HACCP (Hazard Analysis Critical Control Point) that identify critical points on the farm where food safety could be at risk. That risk could occur when new animals come onto the farm, or when fresh produce is sorted and packed into bins.

Although every farm will have slightly different on-farm food safety programs, depending on what they grow or raise, each program includes:

- Evaluating what you're doing and how you're doing it
- Keeping detailed records
- Completing regular audits
- Knowing what to do if things go wrong

Others in the food supply chain, from livestock feed manufacturers to processing facilities and grocery stores, follow similar rules.



Traceability

Being able to assure Canadians and consumers in other countries that the food we produce is safe is important. A big part of that is "traceability". It means having checks and balances in place to assure customers that they're actually getting what they think they are getting-and that we can trace a product right back to its origin, in case something goes wrong.

For example, an IP "identity preserved" program for food grade soybeans tracks every step of production to prove to international buyers that the beans are authentically food grade, and have been produced to exacting standards.

RFID (radio-frequency identification) ear tags for livestock, and a national database of animal movement, mean that we know where animals are and where they've been-critical information to have in case of a disease outbreak or food safety problem¹¹².

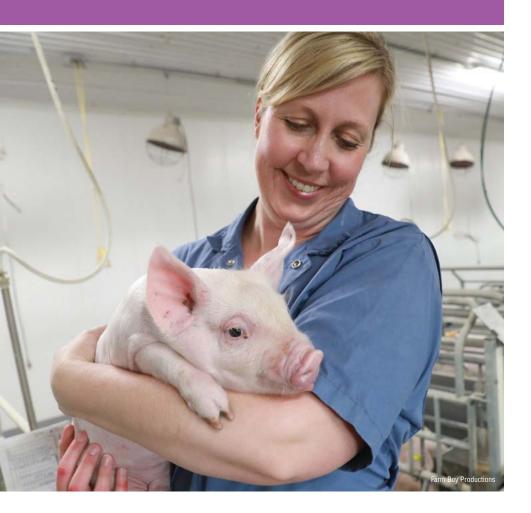
The Real Dirt on Farming

48

Goat with identification tag

A block what?

A **blockchain** is the latest traceability tool for food producers. It's an incorruptible digital ledger of all transactions in a supply chain: information is passed digitally along the chain instead of through a paper trail, and the permanent links between the blocks keep data safe. Pilot projects underway in different countries around the world are all designed to make it easier to do business; to know where food is coming from; and to reduce payment security risks.



Keeping farm animals healthy

Healthy livestock and poultry are a priority for farmers and their veterinarians. A serious disease outbreak or health problem can make animals sick, and occasionally kill some or all the livestock or poultry on a farm. In extreme cases, a disease can affect more than just one species of animal.

That's why farmers use many strategies and tools to ensure that their animals are healthy, including providing a good living environment, ensuring good nutrition, and working with a veterinarian who is responsible for prescribing medications and vaccines.

It's Health Canada's job to evaluate the safety of animal health products, and to approve them for farmers to use. The Canadian Food Inspection Agency is responsible for ensuring the safety of animal vaccines and feed additives.



Career Profile Processing Plant Floor Manager

Lyane Cypres-Zepik

In 2008, one of Canada's leading pork producers, HyLife, acquired the processing plant known as Springhill Farms. This expansion resulted in hundreds of newly created jobs, many of which they were unable to fill with domestic workers.

Located in the rural area of Neepawa, Manitoba, which has a small population and low unemployment rate, they found that recruiting skilled workers from abroad, like Lyane Cypres-Zepik, is essential to filling positions that many Canadians are not interested in doing.

Cypres-Zepik was born in the Philippines, where her family raised pigs and ran a butcher shop. She studied food technology at the University of the Philippines and shortly after began working in quality assurance and production at one of the country's largest meat processors.

She moved to Canada in 2009 as part of the Manitoba Provincial Nominee Program, which seeks internationally trained and experienced workers who have the skills needed in the local labour market and nominates them to receive Canadian permanent resident visas to settle and work in Manitoba. In the Philippines, life and career advancement can be challenging, so being recruited by a Canadian company was an exciting opportunity to improve her family's quality of life.

Cypres-Zepik quickly moved from the production floor to management where she had worked as the QA Assistant Manager and now as the Cut Floor Manager. "I enjoy the opportunity to grow at my job. It makes you feel proud," Cypres-Zepik said. "Who would have thought that you would get to this position?"

The workforce at the HyLife has grown fivefold since 2008, bringing more diversity and opportunities to the area. "I am very grateful for the town of Neepawa for embracing us new immigrants and for helping us integrate and become part of the community."

Photo courtesy of HyLife

What is "One Health"?

Many of the same microbes that make animals sick can also infect humans. The World Health Organization and other organizations around the world have embraced the "One Health" approach, by which experts in animal, plant, and human health work together to prevent disease outbreaks and food safety problems¹¹³.

DID YOU KNOW?

Keeping our food safe, and our animals and plants healthy, are why you are asked about contact with farms and farm animals when you come back to Canada from another country.

When animal and human health meet

New diseases are always emerging in animals and in people. The COVID-19 pandemic is the latest and most high-profile example of the impact a new disease can have on health and on the economy—and why it's important to be prepared.

That's why public health agencies and groups specializing in animal disease surveillance are always watching for and tracking new outbreaks. Canada's food system has invested millions of dollars into disease research, prevention, and emergency preparedness, so that Canadians have the safest food and healthiest livestock possible.

Here are some livestock and poultry diseases of interest:

1. Influenza

Commonly called the flu, influenza makes many Canadians sick every year. Birds and pigs can also get the flu—you may have heard or read about "bird flu" or "swine flu", but you can't catch either of these from eating pork, eggs, chicken or turkey.

2. African Swine Fever

African Swine Fever is a devastating disease that affects pigs, but there is no human health or food safety risk as it doesn't infect humans. There is currently no cure or vaccine for this virus, which kills virtually all the animals that become infected. China has been suffering from a major outbreak since 2018, but the disease is present in African, European, and other Asian countries as well. To date, it has never been found in North America, but since Canada is a major world producer of pork, the industry is working hard to keep the disease out.

3. Food-borne illnesses

Human and animal digestive systems are home to billions of bacteria, including some that can cause severe illness or even death if people consume contaminated food or water. *Escherichia coli (E. coli), Salmonella,* and *Listeria monocytogenes* are the three most common causes of food-borne illness. Canada's food producers and processors use many different tools to keep food free from pathogens that cause food-borne illness. Consumers have a role to play too: cooking meats to proper temperatures; washing produce thoroughly; and washing hands regularly before handling food, after using the washroom, or after petting animals.





Common question: antibiotics and resistance

Antibiotics are a type of antimicrobial medication used to fight bacterial infections in people and animals. **Antibiotic resistance** occurs when the bacteria change and develop the ability to survive exposure to the antibiotics used to treat them. As a result, the medication is no longer effective in killing or slowing the growth of a specific disease-causing organism. It's an important issue worldwide, because it makes it harder to fight human and animal infections caused by these resistant bacteria.

Antimicrobial resistance is a natural phenomenon¹¹⁴ which can be made worse by environmental contamination, misusing antibacterial cleaning products, and using antibiotics in human or animal medicine too much or incorrectly¹¹⁵.

Health Canada has established four categories of antimicrobials based on how they are used in human medicine, ranging from Category I ("very high importance") to Category IV ("low importance")¹¹⁶. The Canadian government tightened the rules on antimicrobial use in farm animals in 2018. For example, farmers now need a veterinary prescription to buy any Category I, II, and III products, and using any of these products to promote growth has been banned¹¹⁷. Advances in animal housing, nutrition, and biosecurity practices mean that fewer antibiotics are used today than in past decades.

The bottom line on antibiotics

Antibiotics are a valuable tool for treating sick people and animals, so it is important that everyone uses them responsibly. Resistance is a complex topic, and critically important research into resistance is happening around the world in both human and animal medicine.

What about drug residues?

Drug residues are traces of medication left over in meat, milk, or eggs, after an animal has been treated with a medication. Every animal health product (e.g. antimicrobials, vaccines, supplements) has what is called a "**withdrawal period**"—a specific amount of time a farmer must wait before sending a treated animal or its products to market¹¹⁸. This ensures that food is safe and free of residues. As an added layer of security, processing plants also test for drug residues to ensure food safety.



Career Profile

Dr. Cali Lewis

With veterinarians for parents, it's no wonder that Dr. Cali Lewis would choose to become one herself. Lewis has been practicing in her hometown of Westlock, Alberta, since 2015. She practices both small and large animal veterinary medicine, meaning she works with pets, as well as livestock, such as horses, goats, sheep, and cattle.

She enjoys working closely with farmers on their animal care strategies. "The key is to focus on preventative measures like strong vaccination protocols, limiting stress and providing good nutrition. But antibiotics certainly have their place when needed."

Lewis describes working with farms as a challenging yet gratifying puzzle. "In addition to caring for the individual animals, you also have to consider the health of the entire herd, as well as economical and production factors. It's definitely a big picture approach to veterinary care," said Lewis.

In her free time, she can be found riding her horse, Sadie, hiking or paddle boarding with her dog, Steady, and partaking in all things outdoors. Milk truck

Raw facts about raw milk

Raw milk has not been pasteurized, meaning it could still contain harmful bacteria and other pathogens that can cause severe, or in some cases fatal, illness¹¹⁹. It is illegal to sell raw milk or cream products in Canada (with the exception of certain raw milk cheeses), so all milk has to be pasteurized before being sold. The milk is heated to a high temperature, which kills any bacteria, but **pasteurization** does not affect milk quality.

Milk is sampled and tested at every farm before it's picked up by the milk truck, to ensure safety and quality. And every milk truckload is tested again at the processing plant, so if there's a problem, the entire load is rejected. It's something dairy farmers take very seriously.

The barcode reveals all

DNA barcoding is a Canadian innovation that helps identify plant and animal species, including pests. DNA from a species is extracted and sequenced for identification, similar to how a supermarket scanner reads a product bar code. Accurate identification is critical to choosing the right pest management strategy. Besides identifying pests, this University of Guelph technology also helps expose cases of food fraud—products being sold as something they're not. Mislabelling fish is common—for example, passing off cheaper tilapia or rockfish as red snapper, which is more expensive¹²⁰.





Using just your smart phone and a DNA testing kit, you can authenticate your food, identify the bug that bit you, or learn about bugs in your garden¹²¹?



Career Profile

Sanjay Tandan

When Sanjay Tandan was young, he wanted to be a doctor. That dream didn't happen as he'd planned, exactly, but he sees a lot of similarities between his original goals and his role as an operations manager/food scientist for a dairy processing company because both rely on science. As a food scientist, he says there's a huge amount of responsibility and accountability to ensure that customers get a safe product. "In one way, I still look after the health of people through the food they consume on a daily basis by ensuring they get safe, healthy and nutritious products."

Common question: hormones, livestock and meat

Fact: no food is hormone-free. Hormones occur naturally in plants and animals, meaning that there is no such thing as hormone-free food¹²².

Dairy cows, pigs, chickens, and turkeys in Canada are not given hormones for milk production or growth promotion. Some beef farmers may use government-approved hormones, however, in beef cattle, because it promotes efficient muscle growth, rather than fat¹²³. That application means leaner meat using less feed. It also helps keep food more affordable for Canadians.

Hormone levels from beef cattle that have received implants is virtually the same as the levels in beef from cattle not given growth promoters. There is more variation in the hormone levels of beef from male versus female cattle than between beef from cattle raised with and without hormones.

The bottom line

Worldwide, the use of hormones in cattle has been confirmed as safe, and as having no impact on human health by agencies including Health Canada, the World Health Organization, and the United Nations, and is based on ongoing research and monitoring¹²⁴.



QUICK

Hormones are one of many methods farmers use to produce affordable, environmentally friendly, and high-quality beef for Canadians. The technology allows farmers and ranchers to use 10 per cent less land, seven per cent less fuel, and raise 12 per cent fewer animals to produce the same amount of food¹²⁵.





Yes, there are rules for those too.

Pesticides, also called crop protection products, are one of the most effective tools available to farmers to keep insects, weeds, and diseases from damaging and destroying fruits, vegetables, and field crops. They also let farmers grow more food on less land, which helps preserve natural forests, wetlands, and other wildlife habitats, while ensuring we all have enough to eat.

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Canadian farmers 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, and products are only approved for use after years of review and testing have proven that they're both safe and effective. In some provinces, farmers must be tested and certified before using these products.

Farmers follow best practices when working with pesticides to make sure that the products are used safely. For example, they make sure they're not applying them on windy days, so that the spray doesn't "drift" away from weeds onto areas where it isn't supposed to be. Wearing personal protective equipment is another best practice to ensure worker safety.

About glyphosate

Glyphosate, the active ingredient in Roundup, is the most widely used weed control product in agriculture. It's one of many tools farmers use to control weeds in crops like canola, soybeans, and corn, or before planting other crops. To prevent weeds from becoming resistant to the product, and therefore uncontrollable, farmers will rotate pesticides or active ingredients (that's the main ingredient in a pesticide that actually controls the weeds).

After reviewing more than 1,300 studies, Health Canada has found that, when used according to the label directions, Roundup will not cause cancer or pose other risks to people or the environment¹²⁶.

Career Profile Regulatory Affairs Manager

B Pratyusha Chennupati

B. Pratyusha Chennupati, a chemical engineer from India, moved to Canada in 2010 to pursue her master's degree in plant science at McGill University. Since then, she has worked as a plant scientist and regulatory specialist for companies that design products that help farmers protect their crops from pests and diseases.

Throughout the lengthy evaluation process for a new product, Chennupati works with the Pest Management Regulatory Agency to ensure they have all the necessary research and information to determine whether it meets the safety and efficacy requirements. "These are important tools for food production but must be evaluated at high levels to ensure that they are not only effective, but also to protect the health of Canadians and the environment."

In 2020, Chennupati was selected to sit on the Canadian Agricultural Youth Council. The council is a consultative body to the Canadian government that brings together young Canadians with a diverse set of perspectives and expertise and are engaged and passionate about the future of the agri-food sector.

Common question: residues and the "dirty dozen"

Every year, an environmental group in the United States releases a "dirty dozen" list of fruits and vegetables it says should be avoided due to high pesticide residue levels. It's a clever tactic to garner attention, but scientists at the University of California, Davis, and elsewhere, have found the report to be misrepresentative of facts, and deceptive¹²⁷.

Scientific analysis has found that if residues are present, they're almost always at extremely low levels that don't cause harm. For example, a child would have to eat 7,240 servings of carrots per day before pesticide residues would be a concern¹²⁸! It's all about dosage—consider that you likely won't feel the impact of half a Tylenol tablet on your headache, but taking a whole bottle could be lethal.

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 people and food are safe.

Today's lab equipment and testing methods are so precise, that they can find amounts so tiny that they won't cause harm, but are still detectable. That's the case with recent findings of glyphosate residues in breakfast cereals like Cheerios. The amounts found are so minute that a person could eat 2.3 kilograms of Cheerios every day, and still be completely safe from any glyphosate-related harm¹²⁹.

For perspective: we can now detect residues in parts per billion and one part per billion is like one foot on a trip to the moon, or one second in 32 years!

The Canadian Food Inspection Agency surveys fruits and vegetables in Canada for pesticide residues each year. The test results consistently confirm that the overwhelming majority of foods on the market meets Canadian standards for food safety.

The bottom line:

You don't have to worry about Canadian fruits and vegetables: they're safe, although we still encourage you to wash your produce before eating.

QUICK

It can take more than 10 years to develop, test, and bring a pesticide product to market.

Better science for more sustainable food

Growing food means using science. Every aspect of farming, from plant and animal genetics, soil management, and pest and disease control, to animal nutrition and housing, and even weather forecasting, has benefitted from science. For Canadians, science has brought us more abundant, nutritious, and affordable food that's being grown more sustainably than ever before.





Soybeans

Common question: GMOs

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

Conventional plant breeding is a very long and expensive process that involves crossbreeding 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 organism**. 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 is a form of biotechnology in which laboratory methods bring together genetic material from multiple sources—a form of genetic recombination. What distinguishes genetic engineering from conventional breeding is the use of recombinant DNA technology.

Here is 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 use¹³⁰.

One form of genetic modification can result in "silencing" or turning off specific genes already inside a plant, which can be accomplished through a technique called RNA interference (RNAi)¹³¹. For example, the genes that cause bruising in the Innate[®] potato, and browning in the Arctic[®] Apple, have been turned off, which ultimately means that less food is wasted.

QUICK

Apples are one of the most wasted food products on the planet—about 40 per cent are thrown out, much of it because they turn brown once they're cut, bitten or bruised. Arctic[®] Apples (which were created in Canada) won't do that because, with the help of genetic engineering, the enzyme that causes the browning has been turned off¹³².

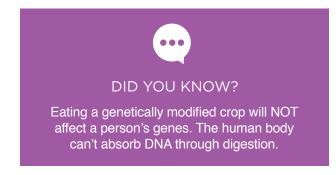


Conventional Apple

Arctic[®] Nonbrowning Apple

Genome editing, by comparison, typically involves targeting and changing specific genes that are already there. 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 repair mechanism. CRISPR-Cas9, the most well-known gene editing technology, is an example of this method. It could potentially be used to make milk, eggs, or peanuts safe for everyone to eat, saving people from allergies that could be life-threatening¹³⁴.

These new technologies build on conventional plant breeding, and will allow for more efficient development of crops with muchneeded traits to make them more resistant to drought or other weather extremes, render them tastier, or even make them contain higher levels of healthy compounds.

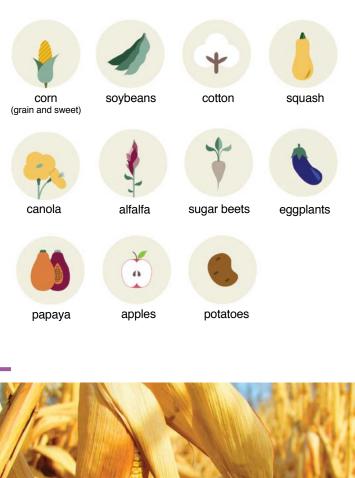


Using science to save foods we love

In the 1840s, a fungus known as blight repeatedly devastated potato crops in Ireland, causing widespread hunger and starvation. Today, farmers can use fungicides—fungus-specific pesticides—to protect potatoes and other crops from being wiped out.

In Bangladesh, genetic modification has saved up to 80 per cent of the eggplant or Brinjal crop from insect devastation, reducing pesticide use and lifting farmers out of poverty¹³⁵. Hawaiian papaya was saved from ringspot virus with a genetically modified (GM) variety resistant to the disease, and a GM banana is currently in the works that could protect the staple crop from a deadly fungus that is threatening the lives and livelihoods of thousands of farmers in Africa, Asia, and now South America¹³⁶.

There are only 11 GMO crops available today¹³:





The bottom line on GMOs and your health:

GMOs do not cause cancer or any other health problems. In the more than 20 years that GMO crops have been grown in Canada, not a single case of illness has been attributed to them. Over 900 research studies from around the world have explored this topic, and these studies were analyzed by 15 scientific societies in 2016—with no evidence of risk to human health or the environment discovered¹³⁷.

Food, farming and the future

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

Mental health on the farm¹³

CHAPTER 8

One of the aspects on which the sector has only recently started to focus is that of farmers' mental health. As you've read in this publication, farming is rewarding, but also can be incredibly challenging. The stresses of a changing climate, market uncertainty, evolving public perceptions, disease and pest threats, activist threats, and more, can take their toll on farmers' mental health.

Farmers often work long hours by themselves, and farms by their very nature are mostly located in rural, sometimes isolated areas. That feature makes it even easier to feel alone and without support.

Recent research conducted by the University of Guelph into the mental health of Canadian farmers showed some startling results:

- 35 per cent of farmers meet the criteria for depression;
- 45 per cent of farmers experience high stress;
- 58 per cent of farmers meet the criteria for anxiety.

And perhaps most sadly, 40 per cent reported that they would feel uneasy about getting professional help because of what other people might think.

Thankfully, though, things are starting to change. The Do More Agriculture Foundation (**www.domore.ag**) promotes awareness of farmer mental health, and breaking the stigma. Hundreds of farmers have participated in the organization's "Talk, Ask, Listen" workshops to date. The University of Guelph has created a mental health course specifically for the Canadian agriculture community called "In the Know" that they're hoping to roll out soon nation-wide and online.

Mental health professionals, researchers, farmers, and others, support the establishment of a Centre for Farmer Mental Health and Wellness to spearhead mental awareness, response, and support for the farming community.



Rachel Renwic

Career Profile

Amy VanderHeide

Amy VanderHeide runs a third generation chicken farm in Coldbrook, Nova Scotia, with her husband, in-laws, and three sons. Farming can be incredibly rewarding, but it's not without its challenges – all of which can take a toll. That is something that VanderHeide knows well.

She was diagnosed with Seasonal Affective Disorder three years ago. "Spring through fall is very busy, so there is less time to stop and think about it. Winter arrives and things slow down; meanwhile all of these emotions have been building up," described VanderHeide.

VanderHeide shared her story on social media, and was overwhelmed by the response from other farmers. "When you begin to open up, it's surprising to see how many people are feeling the same way," said VanderHeide, explaining that if her openness is able to help even one person feel less alone then it will all be worth it.

"We've come so far, but there is more to do. I hope that when my boys grow up and farm, that checking in on their mental health is just another part of the job."

Changing consumer trends

Research shows that a growing segment of the Canadian market is becoming aware and conscious of how their consumption is related to ethical questions around animal welfare and climate change. Younger consumers in particular are concerned about climate change as an issue that will affect them in their lifetime, and how they can make a difference¹³⁹.

For example, green eating is a movement by which food choices are based on sustainability principles, and a desire to reduce the environmental impact of eating and food production.

The products which consumers want, and the values that are important to them, are constantly evolving, and farmers and food producers will keep up with those changes. Different farmers will

meet different trends in different ways, and to do so, they'll continue to turn to innovation and technology to make things better, healthier, and more sustainable for people, animals, and the environment.

Many farmers and food producers are active on social media, so it's easier than ever to have your questions answered by someone who raises farm animals, grows crops or works in the agri-food sector. Try searching popular hashtags like #CdnAg or follow:

@RealDirtonFarming @FacesBehindFood @CdnFoodFocus @FarmFoodCareON @FarmFoodCareSK @FarmFoodCarePEI





Facing the future

While much has changed and will continue to change when it comes to food and farming in Canada, one thing has not: farming begins with the commitment of farm families to the land, to animals, and to growing food.

All Canadians want affordable, safe, nutritious, and sustainably-produced food, and we're lucky to live in a country where how and what to eat are choices that Canadians can make for themselves.

Thank you for supporting Canadian food, and for being interested in how and what Canadian farmers do to produce it. Your trust is not something farmers take lightly—and by working together, we can continue to focus on a sustainable future for our planet and its people.

Career Profile

Ben McFarlane

Ben McFarlane, six, is a third generation beef and crop farmer-in-training. His family owns Windyvue Farms Ltd. outside of Guelph, ON. Farm life is fun and busy says McFarlane. He loves to spend time in the barn with his dad and ride in the combine during corn harvest. Staying safe around farm equipment and taking good care of the cows and land are among his important life lessons. He hopes to grow up and be a farmer like his father and grandfather before him. He is excited and looking forward to using new technology in the future including "bigger tractors and combines!"

Photo courtesy of Holly McFarlane

That's the real dirt.

Original text (2006) by: Alison Lane. 2010, 2014, 2017 and 2020 edition updates by: Lilian Schaer, Agri-Food Project Services Ltd. Design by: Lynn Schouppe, Studio8699. Project Manager: Madeline Rodrigue Editors: Dr. Paul Ling and Kelly Daynard Published by Farm & Food Care, 2020. www.FarmFoodCare.org This booklet was made possible with the generous support of farmers, farm organizations, and agribusinesses across Canada. For a complete list, visit www.RealDirtonFarming.ca.

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Photos in this book were all taken on Canadian farms, or of Canadian farmers. Many were winning entries in the Farm & Food Care 2020 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.

The Real GITL on Farming

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

Enter to Win: Visit www.RealDirtonFarming.ca/Contests for your chance to win one of 10 Canadian food and farming prize packs valued at \$250.



Farm & Food Care Saskatchewan RR #4, Box 277, Site 412 Saskatoon, Saskatchewan Canada, S7K 3J7 www.FarmFoodCareSK.org

Farm & Food Care Ontario 660 Speedvale Avenue W, Unit 302 Guelph, Ontario Canada, N1K 1E5 www.FarmFoodCareON.org Farm & Food Care Prince Edward Island 420 University Avenue, Suite 110 Charlottetown, PEI Canada, C1A 7Z5 www.FarmFoodCarePEI.org





From: O'Brien, Karen <<u>Karen.OBrien@ontariohealth.ca</u>
Sent: Tuesday, January 4, 2022 11:50 AM
To: O'Brien, Karen
Subject: Ontario Health East Region Patient and Family Advisory Council Opportunity

Good morning – we are pleased to share the opportunity to participate in the Ontario Health East Region Patient and Family Advisory Council with you. Please feel free to share this opportunity with any of your constituents.



We want to work with you so that we better understand your health care experiences, needs and priorities. You can play an important role in shaping how our province designs and

delivers health care that meets the needs of your community and improves people's health care experiences.

We need your help to do this work!

We are looking for 12-15 Ontarians from the East region to join our Council who represent our region's diverse communities.

If you are interested in participating:

Please take a few minutes to fill out the below Expression of Interest with a bit of information about yourself, your interests, and your experiences.

Figure 1 - Map of Ontario Health East region / carte de la région de Santé Est de l'Ontario

Patient and Family Advisory Council (PFAC)

Expression of Interest

https://www.surveymonkey.com/r/OHEastPFAC



The Amprior and McNab/Braeside Archives is pleased to announce that, thanks to funding from the Government of Canada's New Horizons for Seniors Program, the Amprior Chronicle has now been further digitized to 1966 (previously ended at 1937), while the Amprior Guide is also now available online from 1966 to 1975. As well, we also received funding from the Ottawa Branch of the Ontario Genealogical Society to add more birth, marriage, and death abstracts, as well as a number of enhancements. We have combined the two projects into one press release. Please see attached.

Both are now available on the Arnprior & McNab/Braeside Archives for viewing. The link to the search function of our website is <u>https://search.adarchives.org/</u> with the two projects showing as updates in the quick access on the left hand side. Or one can enter a name or word under 'search the collections' which searches across all our holdings that have been described. Then you can filter the results by choosing the newspaper collection or the birth, marriage, death indexes under information source.



Nick Smith Centre 77 James Street Arnprior, ON K7S 1C9 tel 613 623 7301 fax 613 623 1150 givory@arnprior.ca www.arnprior.ca

Outdoor Recreation Safety

Town reminds residents and visitors to take proper precautions at outdoor recreation amenities

Outdoor recreation is as important as ever for the physical, mental, and social health of our community. The Town of Arnprior has great options for participating in outdoor recreation. Please take the proper precautions when using these amenities.

Outdoor Rinks

When using outdoor rinks, it is highly recommended that all skaters wear a CSA approved helmet and if engaged in play where pucks or sticks are present, a full cage and protective equipment is also encouraged. CSA approved helmets are required for wheelchair and stroller occupants. Staying off the rinks during inclement weather or when staff are clearing snow or flooding the surface is also for the safety of the users and the benefit of the quality of these recreational amenities. Find more information and status updates on our three outdoor rinks here <u>Outdoor-Skating-Rinks</u>.

<u>Trails</u>

Whether you're on foot, skis or snowshoes, dress appropriately, plan your route, bring a buddy, watch your feet – stay away from slippery surfaces and fast-moving water – and wear reflective and colourful clothing. A reminder that not all trails are maintained in the winter and to be mindful of motorized vehicles when using the Algonquin Trail. Visit <u>our</u> <u>Trails page</u> to learn more about the trails in our community.

<u>Sliding</u>

The Town of Arnprior does not have any sanctioned sliding hills. Residents and visitors will see signs posted in select parks and areas where people often go sliding advising them of the risks of those areas. These locations include 'Tank Hill' on James Street and at Robert Simpson Park. These hills, and others, are not safe for sliding and the Town of Arnprior does not accept responsibility for related risks or injuries. Town staff are working to review suitable options to potentially designate a hill for sliding/ tobogganing in the future.

Users of our outdoor recreation amenities are asked to continue to adhere to the Public Health guidelines and restrictions and to follow any instructions on Town signage posted at these locations. Parents and guardians are recommended to directly supervise children (12 and under) at all times. Please do you part to help keep our outdoor recreation amenities clean.

• WHERE THE RIVERS MEET •



Nick Smith Centre 77 James Street Arnprior, ON K7S 1C9

tel 613 623 7301 fax 613 623 1150 givory@arnprior.ca www.arnprior.ca

Take the opportunity to enjoy the free use of winter recreation equipment from our lending hub. The Town has a variety of snowshoes, cross-country ski kits, skates and helmets. Visit <u>our Lending Hub page</u> for more information or contact the Nick Smith Centre at <u>recreation@arnprior.ca</u> or 613.623.7301 to reserve equipment for your outdoor adventure.

Media Contact: Graeme Ivory, Director of Recreation <u>givory@arnprior.ca</u> 613.623.7301 X1793

• WHERE THE RIVERS MEET •





Issue No. 317

Published by: Forward Thinking

When 80 Per Cent Is Not Good Enough Businesses ready for more supply chain issues in trucking

By: Jennifer Layman jenn@ovbusiness.com

It used to be that a score of 80 per cent in school would land you near the top of the class. Not so for the federal government when it comes to truck drivers. Although 83 to 87 per cent of Canadian truck drivers are fully vaccinated, and despite there being a massive supply chain issue across Canada, the federal government (health, transport and public safety) have told the industry they simply don't care. They would rather further impact the supply chain than work with the industry.

The federal ministries of health, transport and public safety have told Canadian truckers that they must be fully vaccinated to continue to work efficiently. American truck drivers who are not vaccinated will be denied entry completely. According to an estimate from the American Trucking Association, 50 to 60 per cent of American truckers are fully vaccinated.



According to a January 13, 2022 media release, a Canadian truck driver who is not fully vaccinated will be allowed to enter Canada but will need to meet certain requirements for pre-entry, arrival, day 8 testing and quarantine requirements.

Any individual who is symptomatic upon arrival to Canada will be directed to isolate for 10 days from the time symptoms first occurred.

Unvaccinated or partially American truck drivers coming to Canada from the United States by land will be turned away. There was no mention of what happens to the load being hauled, including food, or the businesses relying on that

shipment. In a January 15, 2022 update, partially vaccinated and not-fully vaccinated foreign national truck drivers delivering essential medical supplies are exempt from the prohibition on entry, meaning they are eligible to enter Canada. They remain exempt from pre-arrival testing, quarantine and in-Canada testing.

Canadian Trucking Alliance Concerned For Job Vacancies

January 18, 2022

When the federal government announced that truck drivers would be required to be vaccinated, the industry saw an increase to eight per cent in job vacancies. This is the secondhighest vacancy rate of all industries in Canada, second only to accommodations and food services. As of January 11, the Canadian Trucking Alliance (CTA) reported that the total number of vacancies for transport truck drivers has increased to 22,990 jobs, a historic high since Statistics Canada began tracking vacancies. This also represents a 20 per cent surge in driver vacancies over the second quarter of 2021.

Ontario accounts for 6,080 positions or 26.4 per cent of all truck driver vacancies in Canada followed by British Columbia with 4,280 vacancies and Alberta with 3,925.

Continued on page 3

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Fire alarms, fire extinguishers, safety gear, suppression systems and more.



Phone: 613-732-5320 | joel@laymanfireandsafety.com | www.laymanfireandsafety.com

Ottawa Valley BUSINESS

ABOUT US

Ottawa Valley Business (OVB) publishes on the first and third Tuesday of every month. OVB covers business news and events throughout Renfrew, Lanark and Pontiac counties as well as the surrounding areas. OVB is published by Forward Thinking Marketing Agency.

WHO READS US

Ottawa Valley Business is delivered by email to 3,600 subscribers in businesses, organizations and local and regional government.

HOW TO SUBSCRIBE

Subscriptions are free. Send an email to jenn@ovbusiness.com to be added to our distribution list.

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2/3 Page	
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CONTENT & SUBMISSIONS

Submissions on items related to business are welcome. This includes news, events, new hires, tender and letters to the editor. Content will be edited to fit the space available. If you have an event that is not businessrelated, please consider 101 Things To Do in the Valley at a cost of \$25. 101 things@travelourbackyard.com

CONTACT US

Publisher.....jennifer Layman Email......jenn@ovbusiness.com Phone.....613-732-7774 Online.....www.ovbusiness.com www.facebook.com/OVBusiness

MAILING ADDRESS

2113 Petawawa Boulevard, Pembroke, Ontario K8A 7G8

Events

January 18, 2022 Dong Business with the Government of Canada. Find out if the government buys your goods or services. Register in the supplier database, find key purchasing contracts, search and bid on opportunities, obtain security clearances and more. Free webinar. 12:00pm-2:00pm. 1-873-355-9796

January 18, 2022 Grow Your Brand on Instagram. Free online webinar. 2:30pm-4:00pm. This workshop is for those that have already dipped your toes into the world of Instagram, and are looking to grow your business's reach on the platform. www.obiaa.com/events

January 18, 2022 Google Advertising for Not-For-Profit Organizations. Did you know that as a not-ffor-profit you are entitled to free advertising on Google? It's called Google Grants and it offers \$10,000 per month in advertising. 10:00am-12:00pm. Virtual workshop. Hosted by Volunteer Ottawa. \$145. education@volunteerottawa.ca

January 19, 2022

Supplying Professional Services to the Government of Canada. Key information to help you bid on professional services opportunities. 10:00am-12:00pm. Free webinar. 1-800-668-5378

January 19, 2022 Fostering Effective Staff-Volunteer Relations. Understand volunteer motivation and how volunteers want to contribute to the organization. Role of policy and boundaries in volunteer success. For volunteer coordinators, senior managers, fundraisers and program personnel. 9:30am-11:30am. Virtual workshop. Hosted by Volunteer Ottawa. \$145. education@volunteerottawa.ca

January 20, 2022 SEO Fundamentals. Free online webinar. This beginner-level workshop will teach you how to connect your business to customer searches on Google and how to optimize your website and digital presence for Google, without costing you money. 7:00pm-8:30pm. www.obiaa.com/events

January 22, 2022 Mental Health 102: Breaking down stigma with active communication. Learn practical skills to bring into the workplace and personal lives to de-escalate someone who is in crisis or distress, deepen connections and decrease stigma.10:00am-11:00am. Virtual workshop. Hosted by Volunteer Ottawa. \$145. education@volunteerottawa.ca

January 25, 2022 How to Read Financial Statements. Balance sheets, income statements, budget variances, interpreting cash flows, internally and externally restricted funds, what auditors look for and more. 9:00am-12:00pm. Virtual workshop. Hosted by Volunteer Ottawa. \$145. education@volunteerottawa.ca January 25, 2022

Google Analytics for Small Business. Discover the fundamentals of Google Analytics. Beginner-level webinar. Free. 9:00am-10:30am. www.obiaa.com/events

January 26, 2022 Obtaining Security Clearance. Different kinds of security clearances, registration process, responsibilities as a supplier and more. Free webinar. 1:00mp-3:00pm. 1-800-668-5378.

January 26, 2022 Social Media for Small Business. A look at the basics of popular social media channels including Facebook, YouTube, Twitter, Instagram, LinkedIn, and Pinterest. Decide which are right for you. Free online webinar. 7:00pm-8:30pm.

January 27, 2022 Dong Business with the Government of Canada. Find out if the government buys your goods or services. Register in the supplier database, find key purchasing contracts, search and bid on opportunities, obtain security clearances and more. Free webinar. 1:00pm-2:30pm. 1-866-602-0403

www.obiaa.com/events

February 1, 2022 Dong Business with the Government of Canada. Find out if the government buys your goods or services. Register in the supplier database, find key purchasing contracts, search and bid on opportunities, obtain security clearances and more. Free webinar. 12:00pm-2:00pm. 1-873-355-9796 February 2, 2022

Dong Business with the Government of Canada. Find out if the government buys your goods or services. Register in the supplier database, find key purchasing contracts, search and bid on opportunities, obtain security clearances and more. Free webinar. 10:00am-12:00pm. 1-800-668-5378.

February 2, 2022 Writing Successful Web Content. This webinar will help you write better content for your website that will appeal to your target audience, as well as search engines such as Google. Free online webinar. 7:00pm-8:30pm. www.obiaa.com/events

Deadlines

Ottawa Valley BUSINESS

Publishing: February 1, 2022 Deadline: January 25, 2022

Publishing: February 15, 2022 Deadline: February 8, 2022

Publishing: March 1, 2022 Deadline: February 22, 2022

Publishing: March 15, 2022 Deadline: March 8, 2022

101 Things To Do in the Valley

FOUR ISSUES PER YEAR

Winter Edition Due to the government COVID rules impacting events, we are not publishing this edition.

Spring Edition

Publishing: April 19, 2022 Deadline: April 12, 2022

Summer Edition

HealthMatters

Winter Edition DISTRIBUTING NEXT WEEK!

Spring Edition Deadline: April 1, 2022 Publishing: April 21, 2022

Summer Edition Deadline: July 1, 2022 Publishing: July 21, 2022

Continued from page 1

More than \$650 billion in trade crosses the US-Canada border annually.

The CTA had worked hard to get governments on both sides of the border to reconsider the vaccine mandate for truck drivers. The decision from the U.S. comes on January 22. The industry is anticipating a loss of 12,000 to 16,000 cross-border commercial drivers, with as many as 30,000 drivers exiting the Canadian industry.

Border Importance

In 2010, Transport Canada estimated that there was \$1 million worth of goods and services that crossed the US-Canada border every single minute of the day! They also noted that one in seven Canadian jobs are linked to trade with the United States.

According to the British Columbia Trucking Association, Ontario is home to the top three busiest border crossings (2016) -Windsor, Fort Erie and Sarnia. Landsdowne also makes the top 10 in busiest crossings. For Quebec, locations in Lacolle and Philipsburg made the Top-10 list.

According to the United States Department of Agriculture, the US exports \$21 Billion in food to Canada. Here are the biggest categories:

\$2.18 billion - prepared food

- \$1.89 billion fresh vegetables
- \$1.58 billion fresh fruit
- \$1.33 billion snack foods
- \$1.01 billion non-alcoholic beverages
- \$0.85 billion pork

"When Canada's trade with the US and the rest of the world is combined, trucking is the most dominant mode of transportation," they noted. "Trucking accounted for around 49 pe rcent of all trade in 2016, more than double the share of any other mode," they reported.

Food Issues Concern Canadian Professor

"Food inflation is already a challenge in Canada, and the vaccine mandate affecting truckers could make things worse, especially for families with fewer means," wrote Dr. Sylvain Charlebois, the senior director of the agri-food analytics lab at Dalhousie

University in an opinion piece for CTV News. "We need to be careful with vaccine mandates that could impact the effectiveness of our food supply chain. Some measures are worth second-guessing. Cancelling hockey tournaments and other events is one thing, but potentially compromising the fluidity of our food supply chain is very different. Stakes are much, much higher."

Businesses and truck drivers can follow the latest guidance on this from the Canadian Trucking Alliance website at www.cantruck.ca

Are you ready to move to a bookkeeping service?

Do you need to free up some time to work on other areas of your business?

Do you have a bookkeeping vacancy at your business that you can't seem to fill?

Finance

Expanded Canada Worker Lockdown Benefit

On December 30, the CRA launched the application site for the expanded Canada Worker Lockdown Benefit (CWLB), which includes its list of eligible lockdown regions. Affected Canadian workers in newly designated lockdown regions can apply for the benefit now. Payments will be retroactive to December 19, 2021. Visit www.canada.ca/en/services/bene fits/covid19-emergencybenefits.html

Relief For Cross-Border Workers

On December 30, the CRA announced that the administrative relief that was provided to Canadian-resident cross-border workers in respect of their 2020 income tax obligations will now also apply to the 2021 tax year.

Tourism Recovery Program Spreadsheet Error

On December 29, the CRA sent a communication to stakeholders to notify them that there is an error in a previous version of the wage and hiring support spreadsheet which may have shown claimants that they were not eligible for the Tourism and Hospitality Recovery Program for period 22 (October 24 to November 20, 2021) when in fact they were.

Auto Income Tax Deductions

The federal government recently announced that the automobile income tax deduction limits and expense benefit rates will be increased for 2022. For further details, see

www.canada.ca/en/departmentfinance and follow the news release (right hand side) for December 23, 2021.

> Source: CPA Canada www.cpacanada.ca

Contact Kim Boudens. Phone: 613-401-8052 or boudens1@nrtco.net

Boudens

BOOKKEEPING

Business News Around The Valley

Sisters of St. Joseph Property Development

An official plan amendment and zoning by-law application has been received by the City of Pembroke for the redevelopment of 1127 Pembroke Street West, the former Sisters of St. Joseph property. The property is zoned Institutional and Flood Plain and permits a retirement residence but not an apartment building. The applicant wishes to change the use to permit a 65-unit apartment building.

McNab Braeside Proposes Contract Extension

In 2017 the Township of McNab Braeside entered into a five-year contract with Topps Environmental Solutions to provide curbside collection services. This contract was tendered as part of a joint recycling and solid waste collection tender with the towns of Arnprior and Renfrew. The original contract provided the ability to extend the contract for one year for up to two extensions. The municipality is considering extending the contract for one year. The anticipated annual budget for solid waste collection services for 2022 provided under this contract extension by Topps is \$182,000 which is still below the annual cost tendered five years ago by the second-lowest bidder (\$206,000).

Cyber Insurance Premiums Rise

On January 6, 2022, staff for the Township of McNab Braeside received notification from the insurance carrier that they had received quotations for two options for cyber insurance coverage for the 2022 calendar year. Both quotations for cyber coverage are through Intact Public Entities with Ascent Underwriting. Option 1 was a premium of \$7,455.00 with a \$100,000 deductible. Option 2 was \$8,940.00 with a \$10,000 deductible. Option 2 is similar to the coverage the township carried last year though premiums have risen due to the significant increase in cyber claims which is affecting the market as a whole. Staff is recommending that council award cyber insurance coverage to Intact Insurance Public Entities (Ascent Underwriter) in the amount of \$8,940.00.

New Businesses In Arnprior Zesty Shawarma'z and The Chicken Palace are new businesses to the Town of Arnprior. Both are located in the Heritage Strip Mall.

Health Unit

Personnel Changes Patti Smith has been appointed the Director of Health Promotion, Renfrew County District Health Unit following the retirement of Carla Walters. Also, Andrew Keck has assumed the role of Manager, Healthy Communities, Communications and Dental, after the retirement of Elizabeth McLaren.

Building Permits

Greater Madawaska issued 175 building permits in 2021, an increase from 122 issued in 2020. The total construction value was \$30,150,815, nearly double that of 2020. Residential led the way with all but one permit, a \$400,000 value in commercial. Head, Clara and Maria issued 15 building permits in 2021 for a total value of \$305,500. All permits were residential (including seasonal dwelling) in nature.

Community Improvement Grant - Arnprior

The Town of Arnprior is considering a community improvement plan application for 60 Madawaska Street. The proposed project is to paint the exterior of the building from the ground floor up to the top floor. The application meets the criteria for a \$3350 grant under the façade and property improvement program. *Continued on page 5*

COMMUNITY FUTURES FRANCOPHONE JOB CREATION PROGRAM

50% WAGE SUBSIDY

THE COMMUNITY FUTURES FRANCOPHONE JOB

CREATION PROGRAM WILL PROVIDE FINANCIAL

INCENTIVES TO RENFREW COUNTY EMPLOYERS

TO HIRE FRANCOPHONE SPEAKING EMPLOYEES THROUGH A 50% WAGE SUBSIDY.

Renfrew County employers are eligible for the following

for a new francophone hire:

- Up to 50% employee wage subsidy

- Up to 50% advertising contribution for job position

Employees hired on or after September 24, 2021 eligible.

Available through to March 31, 2022.

CALL 613-431-3951 EXT. 229

OR EMAIL KELLEY.LEMENCHICK@RCCFDC.ORG

FOR MORE INFORMATION.

PROGRAMME FRANCOPHONE POUR LA CRÉATION D'EMPLOIS SOCIÉTÉ D'AIDE AU DÉVELOPPEMENT DES COLLECTIVITÉS (SADC)

SUBVENTION SALARIALE DE 50 %

LA SADC OFFRIRA UNE SUBVENTION SALARIALE DE 50 % AUX EMPLOYEURS DU COMTÉ DE RENFREW QUI EMBAUCHENT DES EMPLOYÉS FRANCOPHONES VIA LE PROGRAMME FRANCOPHONE POUR LA CRÉATION D'EMPLOIS.

Les employeurs du comté de Renfrew qui embauchent des employés francophones pourront recevoir : - une subvention allant jusqu'à 50% des dépenses salariales encourues; - un soutien financier allant jusqu'à 50% des frais pour annoncer ces postes.

Les subventions sont disponibles jusq'au 31 mars 2022.

POUR EN SAVOIR PLUS, VEUILLEZ COMMUNIQUER AVEC NOUS AU 613-431-3951 POSTE 229 OU KELLEY.LEMENCHICK@RCCFDC.ORG



tenfrew County Community Futures Development Corporat 50 O'Brien Road, Suite 205, Renfrew, Ontario www.rcfdc.org



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Société d'aide au développement des collectivités du comté de Renfre 450, rue O'Brien, bureau 205, Renfrew (Ontario) www.rccfdc.org 612-431-3951



Business News Around The Valley

Continued from page 4

Employees Earn Certifications

Michael Ledgerwood, Chris Chowder and Ryan Dalagity, employees of the Town of Arnprior, have earned their Associate Road Supervisor certification through the Association of Ontario Road Supervisors.

Deep River Typical Tax Bill Deep River ratepayers pay a combined property tax that comprises municipal, county and education portions. Assuming a three per cent increase on county taxes and a zero per cent increase on education taxes, the combined property tax on an average single-family home in Deep River may increase by approximately \$64. For a singlefamily home assessed at \$198,000, taxes are allocated as follows: \$1,990 municipal, \$743 county and \$303 education. The combined property tax for an

average small retail commercial property may increase by \$72. For a small retail commercial property assessed at \$123,000, taxes are allocated as follows: \$2,244 municipality, \$837 county and \$1,082 education. Tax Arrears in NAW

As of December 31, 2021, the total taxes owing to North Algona Wilberforce Township was \$552,276.23. The amount of taxes levied in 2021 was \$3,356,054 and the percentage outstanding is nine per cent.

County of Renfrew Faces 11% Insurance Jump

An email dated December 24, 2021 was received by the County of Renfrew from MIS Municipal Insurance Services advising that our annual renewal premium for the County of Renfrew for 2022 is \$703,467, which is an increase of 11 per cent or \$70,908 more than 2021. Over the past six years but insurance companies are experiencing the effects of the hard insurance market and the impacts of COVID-19. On average, insurance companies are seeing a premium increase in the 15-20 per cent range this renewal season, depending on claims. The driving factors behind the county's premium increases are a 10 per cent increase in our liability rates, a four per cent increase in auto rates and a 12 per cent increase in property insurance rates. Cyber insurance has also increased significantly over the past year due to the increase in the number and size of claims therefore, the premium is up 45 per cent or \$12,800 over 2021.

COVID Regulation Changes In Quebec

On January 13, 2022, Quebec Premier Legault announced the return to school for children will go ahead on January 17. The curfew will also be lifted that day. The closing of non-essential businesses on Sundays will end after January 16. An expansion of the vaccine passport was announced for businesses with a surface area of more than 1,500 square metres. This new measure comes into effect on January 24. Businesses whose primary activity is pharmaceutical or grocery are exempt. Proof of vaccination will be required at all SAQ and SQDC shops as of January 18.

Lanark County Housing Consultation

Lanark County is developing a strategy to identify municipal tools to support the development of housing that is affordable to Lanark County residents with low and moderate incomes. Three sessions are open to the public: January 20 (10:00am-12:00pm), January 25 (10:00am-12:00pm) and January 25 (4:00pm-6:00pm). Contact 613-267-4200 ext.2601 or ss@lanarkcounty.ca.

Submit your business news to admin@ovbusiness.com

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- help to find clients
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EFCC@PetawawaMFRC.com

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Ottawa Valley Business

It's A Fact

Ontario Trucking Statistics

90%

Consumer products and foodstuffs shipped by truck in Ontario

200,000

Number of trucks on Ontario roads on any given day

Two-Thirds

Total Canada-US trade by value by truck

75%

Ontario's export trade to the U.S. delivered by truck

Most

Trucks carry more trade with the US than by boat, train or aircraft

7 Million

Trucks that cross the Ontario-US border each year 4/5

Busiest land crossings between Canada and the US that are located in Ontario

#I

Windsor-Detroit border crossing has more trade flow than any other border crossing in the world

#I

Canada is the largest destination for US exports

50% Ontario's percentage of US

exports to Canada

200,000 Ontarians who make their

livelihood in the trucking sector

Source: Ontario Trucking Alliance

More Business News In Brief

Investors Responsible For Buying Up Homes BNN Bloomberg is reporting

that a new study from the Bank of Canada found investors accounted for nearly 20 per cent of home purchases dating back to 2014.

Oilsands Companies Combine As Group Canada's largest oilsands companies have formed a new advocacy group they say will help to advance the sustainable development and operation of their industry. The Oil Sands Alliance was established January 1, with membership consisting of oilsands producers Suncor Energy Inc., Cenovus Energy Inc., Imperial Energy Ltd., Canadian Natural Resources Ltd. and ConocoPhillips.

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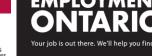
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This Employment Ontario service is funded in part by the Government of Canada and the Government of Ontario.

Government News In Brief Business relief supports, site readiness and more

Ontario COVID-19 Small Business Relief Grant

The Ontario government has announced a \$10,000 grant to businesses that have been forced to close due to government rules surrounding COVID-19. They include restaurants and bars, facilities for indoor sports and recreational fitness activities (including fitness centres and gyms), performing arts and cinemas, museums, galleries, aquariums, zoos, science centres, landmarks, historic sites, botanical gardens and similar attractions, meeting or event spaces, tour and guide services, conference centres and convention centres, driving instruction for individuals and before- and after- school programs. For information, visit https://bit.ly/3F4vcWt

Ontario Business Costs Rebate Program

The Ontario government has announced the Ontario Business Costs Rebate Program which will open on January 18. This program will provide eligible businesses that are required to close or reduce capacity with rebate payments for up to 100 per cent of the property tax and energy costs they incur while subject to public health measures in response to the Omicron



variant. Eligible businesses required to close for indoor activities will receive a rebate payment equivalent to 100 per cent of their costs. Those required to reduce capacity to 50 per cent will receive a rebate payment equivalent to 50 per cent of their costs. For information visit https://bit.ly/3F4vcWt

Site Readiness Program Deadline: March 1

The Site Readiness Program provides financial support to property owners to complete site preparatory work for an eligible industrial property. Industrial properties that have completed the Site Readiness Program are attractive to investors and site selectors because they have access to important background information on the site's availability, utilities, transportation access and/or environmental records needed to make a site selection decision quickly. Applicants can receive reimbursement of 50% of eligible expenses, up to a maximum of \$25,000 per application, upon completion of the program. You can request a copy of the instructions and program guide by emailing investmentready@ontario.ca or by calling 1-855-585-0475.

Ontario Agriculture Business COVID Funding

Through the Enhanced Agri-food Workplace Protection Program, eligible businesses can apply for funding to implement health and safety measures to reduce the spread of COVID-19 in their workplaces. Apply while funding is available or until February 1, 2022. For more information, visit www.omafra.gov.on.ca

Phillips, Yurek Resigning Rod Phillips and Jeff Yurek have resigned. Phillips was a member of cabinet in Ontario as finance minister and then long-term care minister. Prior to politics in 2017, he was the CEO of the Ontario Lottery and Gaming Corporation. He is returning to the private sector. Jeff Yurek is resigning at the end of February. He was Ontario's environment minister before being leaving cabinet in June 2021. He was first elected in 2011.

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Election Watch

Ontario Election June 2, 2022

How to become a candidate: You must be 18 years of age or older on election day, a Canadian citizen, a resident in Ontario for at least six months before election day and not disqualified by any legislation. You must be nominated by having signatures and addresses of at least 25 eligible electors in the electoral district in which you are running. Once you receive a Certificate of Nomination, your name will appear on the ballot and you will be registered according to the Election Finances Act and eligible to start financial activity. There is no fee to become a candidate.

For more information on the Ontario provincial election, visit www.elections.on.ca

Municipal Election October 24, 2022

May 2, 2022: First day to file a Nomination Paper for mayor, councillor and school board trustee.

August 19, 2022: Deadline for candidates to file a nomination, withdraw a nomination or change office.

Who can be a candidate? You must be a resident of the municipality, a non-resident owner or tenant of land in the municipality or the spouse of such non-resident owner or tenant, a Canadian citizen and at least 18 years old, you must not be legally prohibited from voting and not disqualified by any legislation from holding municipal office. You will need 25 signatures on your nomination form and must pay a fee of \$100 (\$200 for mayor).

There is a 90-minute online course that explains the role of running for municipal council.

For information on municipal elections in Ontario, visit www.amo.on.ca

December Overview: Renfrew County Real Estate Dollar value of home sales sets record for December

The number of homes sold through the MLS® system of the Renfrew County Real Estate Board (RCREB) totalled 108 units in December 2021. This was essentially unchanged from December 2020.

Home sales were 20 per cent above the five-year average and 40.3 per cent above the 10-year average for the month. On an annual basis, home sales totalled a record 2,287 units over the course of 2021. This was a moderate gain of 4.5 per cent from the same period in 2020.

The average price of homes sold in December 2021 was \$446,606, a gain of 36.8 per cent from December 2020. The more comprehensive annual average price was \$406,103, advancing 31.2 per cent from all of 2020. The dollar value of all home sales in December 2021 was \$48.2 million, up by 35.5 per cent from the same month in 2020. This was also a new record for the month of December.

The number of new listings decreased by 23.2 per cent from December 2020. There were 63 new residential listings in December 2021. This was the lowest number of new listings added in the month of December in more than a decade. New listings were 19 per cent below the five-year average and 29 per cent below the 10-year average for the month of December. Active residential listings numbered 115 units on the market at the end of December, a decline of 20.7 per cent from the end of December 2020. Active listings haven't been this low in the month of December in more than 15 years. Active listings were 69.3 per cent below the five-year average and 79.5 per cent below the 10-year average for the month of December.

CEBA Loan Repayment Deadline Extended

The repayment deadline for Canada Emergency Business Account (CEBA) loans is being extended to December 31, 2023 for all eligible borrowers in good standing.

If you borrowed \$40,000 or less, repaying the outstanding balance of the loan on or before December 31, 2023 will result in loan forgiveness of 25 per cent (up to \$10,000).

If you received a \$40,000 loan and subsequently received the \$20,000 expansion, repaying the outstanding balance of the loan on or before December 31, 2023 will result in a single tranche of loan forgiveness up to \$20,000. This is based on a blended rate: - 25 per cent on the first

- 25 per cent on the 1 \$40,000; plus

- 50 per cent on amounts above \$40,000 and up to \$60,000. The portion of forgiveness is combined into a single tranche of forgiveness, which is only available if all other amounts outstanding are repaid by December 31, 2023. For example, if \$60,000 is borrowed, no forgiveness is available unless \$40,000 is repaid. If you have questions contact the financial institution which issued the loan.

FREE Transportation to COVID-19 Vaccination Clinics in Renfrew County



This service is available to all residents of Renfrew County who are eligible for vaccination and to individuals who require wheelchair specialized transportation.

Not sure who to call? Call 1-833-617-4357 for your local transportation provider.

If you require transportation or wheelchair accessible transportation to your vaccination appointment in Renfrew County, your Community Support Services will provide your transportation free of charge.

To book a drive, call:

Arnprior McNab Braeside Seniors at Home Program Phone: 613-623-7981

Renfrew & Area Seniors Home Support Phone: 613-432-7691

Calabogie & Area Home Support Phone: 613-752-2828

Eganville & District Seniors Phone: 613-628-2354 Carefor Health & Community Services (Pembroke) Phone: 613-732-9993

Barry's Bay & Area Senior Citizen's Home Support Phone: 613-756-2772

North Renfrew Long-Term Care Services (Deep River) Phone: 613-584-1900

Ottawa Valley Business

Tender Results Around The Region

Millennium Trail Lighting. Renfrew.

Recommended purchase from Lighting FX Inc. and Dougherty Electric for installation at a cost of \$31,770.00.

Westmeath Boat Launch Creek Rehabilitation Engineering. Whitewater Region.

Recommended approval of the single source award to Jp2g Consultants Inc. at a cost of \$24,524.16.

Sale of Land (Industrial Park). Whitewater Region.

Snyders Equipment - \$61,755.00

Construct Mezzanine at H124. Defence Construction Canada. Awarded to Wade General Contracting of Petawawa in the amount of \$2,035,600.00.

Design Reception Building. Defence Construction Canada. Awarded to SNC-Lavalin Inc. (Halifax) of Bedford, Nova Scotia in the amount of \$300,425.00. Quick Response Consultant Services. Defence Construction Canada. Awarded to Defence Construction Canada of Petawawa.

Supply and Delivery of 3M Scott Self Contained Breathing Apparatus and Accessories (Tender No. T-21-15). Pembroke. Awarded to M&L Supply Fire and Safety in the amount of \$172,524.00.

Tenders

EXPRESSION OF INTEREST

APN – Petawawa Construction Program for FY 2021-2022 with Security Requirements

REQUEST FOR PROPOSAL

2021-CORP-08 Land Needs Study

ES-2022-02 RFP Adjustments to Tay River Rocky Ramps

RFP – DP-2022-01 Design-Build of an Affordable Multi-Residential Housing Project

RFP – Supply and Delivery of One (1) New Wheeled Excavator

RFP-PR-2021-01 Architectural and Design Services for the Renovation of the Lanark & District Community Centre



TIP: Be sure to introduce your business at the start of your job posting. You may have been in business for 50 years, but that doesn't mean that everyone knows you or knows what you do. When you want to attract someone to work for your company, you can increase the value of your attempt by talking positively about your background, achievements and why someone would proud to work for you. With so many job opportunities available, the employers that take a little more time with their job postings will stand out to job seekers.

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TENDERS

RFT#2022-04 – Supply & Delivery of New Vehicles at RCDSB Plant Department

PW-M-38-2022-22-E3 – 3 Cable Guide Rail and Steel Beam Guide Rail Maintenance

PW-C-11-2022-22-E0 – Supply and Place Shoulder Gravel

> PW-C-10-2022-22-E0 – Culvert Replacements

> PW-C-12-2022-22-E0 – Micro Resurfacing

PW-C-09-2022-22-E0 – Road Rehabilitation of County Road #43 (Highway 43)

PW-C-08-2022-22-E0 – Road Rehabilitation of County Road #20 (Waba Road)

PW-C-07-2022-22-E0 – Road Rehabilitation of County Road #18 (Port Elmsley Road)

PW-C-06-2022-22-E0 – Road Rehabilitation of County Road #17 (Blakeney Road)

PW-C-05-2022-22-E0 – Road Rehabilitation of County Road #14 (Narrows Lock Road)

PW-C-04-2022-22-E0 – Road Rehabilitation of County Road #10 (Scotch Line)

PW-C-02-2022-22-E0 – Road Rehabilitation of County Road #9 (Tatlock Road)

PW-C-01-2022-22-E0 – Road Rehabilitation of County Road #6 (Christie Lake Road)

PW-M-32-2022-22-E2 – Supply and Application of Water Based Traffic Paint for Pavement Markings

Replace Balcony Guardrail

Town Hall Renovation

W0107-19M048/A – Cable TV Services

For full tender listings and results, visit ww.ovbusiness.com

When Someone Copies Your Ideas In most cases it is more irritating than impacting



By: Jennifer Layman jenn@fwdthink.net

One of the situations that can bring someone to my door is when a competitor has "copied" their marketing. Different people have experienced a competitor copying their advertising, running the same promotions, recreating menus and misleading customers about the person's business. I remember one client saying, "I feel like every time we think of something new we should just call [the competitor] and tell them what we're going to be doing..."

For everyone, it is aggravating when someone steals the ideas and strategies that they have worked hard to create for their business. Interestingly, one of my competitors told businesses to actually do that - copy what others are doing so they don't have to waste time coming up with ideas! It can feel like the work you put into marketing isn't worth it because someone can just copy what you do. But, the competition isn't getting much out of stealing your ideas, and in fact, they might end up sending you more business. Here's why:

1. They don't know what they don't know. When you strategize on a promotion or a way to grow your business, many factors go into that decision. This can include the cost to offer the promotion, the method by which you are going to promote it and for how long, how the promotion will be managed when customers inquire and how you will use it to connect to more of your business products and services. This is really the strategy part of marketing. When someone copies you, they don't know the strategy behind making the promotion sustainable. While the competitor might get a little traction, they won't be able to sustain it.

2. The leader and the follower. When you have a competitor who is willing to follow your lead, you never have to worry about them becoming the leader; they'll always be behind you. In addition, their focus is on your business, not their business. That's an important factor because even if two businesses offer the same product, they are not operated in the same way. There are different clientele, different finances and different supplier agreements so what works for one will not necessarily work for another. When you focus on your own business, you can make much better opportunities.

3. Irritating versus threatening. There is a difference between something that bugs you versus something that could legitimately impact your business. I have had my own work copied and while it is never fun to go through that experience, it hasn't yet threatened my business. If you notice that your bottom line is impacted by the competitor's copying of your ideas, then it's worth your attention. Otherwise, shrug it off.

You know the trial and error situations you have gone through to plot the best course for your business and that lived experience has made you a better company. Trust that experience it always sets you apart from others in your same line of work.

Jennifer is the president of Forward Thinking Marketing Agency. Her column appears in every issue.



Work Wellness

Create a Meditation Group

Have a space in your office (maybe a boardroom) where you can play a 10 minute guided meditation. Employees can come and sit or stand as part of the break. There are a number of free online guided meditations that can be accessed so this works great for remote employees as well who can tune in from their own workspace.

The Origin of Sayings: White Elephant

White elephants were once considered highly sacred creatures in Thailand, even gracing the national flag until 1917. But, they were also wielded as a subtle form of punishment. According to legend, if an underling or rival angered a Siamese king, the royal might present the unfortunate man with the gift of a white elephant. While ostensibly a reward, the creatures were tremendously expensive to feed and house, and caring for one often drove the recipient into financial ruin. Whether any specific rulers actually bestowed such a gift is uncertain, but the term has since come to refer to any burdensome possession - pachyderm or otherwise.

Quotable

"You can't change how people treat you or what they say about you. All you can do is change how you react to it." (Mahatma Gandhi)

"Don't be afraid to give your best to what seemingly are small jobs. Every time you conquer one it makes you that much stronger. If you do the little jobs well, the big ones will tend to take care of themselves." (William Patten)

"The man who moves a mountain begins by carrying away small stones." (Confucius) AMO Watchfile not displaying correctly? <u>View the online version</u> Add Communicate@amo.on.ca to your safe list



January 6, 2022

In This Issue

- AMO's newest policy updates and calls to action.
- Excess soil regulation changes now in effect.
- ROMA Conference Ministers' Forum: Deadline to submit questions is January 14.
- ROMA Conference: Register by January 20.
- Blog: LAS' Business and data analytics intern.
- Using LAS this year? Don't forget to do this.
- Canoe webinar: Cutting edge solutions from Sharp Electronics.
- Careers: AMO, Brampton, Greater Sudbury and Waterloo.

AMO Matters

Yesterday's Policy Update included two Calls to Action (Joint & Several Liability and CN's compliance with the *Drainage Act*) and updates on issues of municipal concern, including health care, housing, and cannabis. Click <u>here for more details</u>.

Provincial Matters

<u>On-Site and Excess Soil Management Regulation</u> (O. Reg 406/19) came into effect on January 1, 2022. You can review the webinar AMO hosted on the changes <u>here</u>.

Eye on Events

The deadline to submit your questions for the two Ministers' Forums at this year's ROMA conference is **January 14 by 12 pm**. As a registered conference delegate and municipally elected official take the opportunity to submit questions <u>here</u>.

ROMA 2022: Rural Opportunities virtual conference offers two full days of engaging keynotes, addresses from key ministers and party leaders, concurrent session discussions on timely issues, and opportunities to connect with colleagues from across the province. Full details <u>here</u>.

LAS

What's it really like being an intern at LAS? Read our <u>latest blog</u> written by Edward Kwan who worked as a Business & Data Analytics intern during the fall term.

If you plan on using one or more <u>cooperative programs</u> from LAS this year, don't forget to post your <u>Notice of Participation</u>. This ensures your purchasing department remains in compliance with trade agreements.

Sharp Electronics is one of the leading suppliers of printers, multifunction devices, displays and more. Join the LAS webinar on January 26 at 11 am to hear how your offices can benefit from this <u>Canoe contract</u>. Be sure to <u>register here</u>.

Careers

Advisor, Municipal Engagement - AMO. Interested in working for one of Canada's

most influential public policy advocacy organizations? Is community building and advancing the interests of municipal government appealing to you? Are you interested in supporting AMO in its efforts to deliver premier events and training and to advance diversity and equity objectives in local government? AMO is seeking an Advisor, Municipal Engagement. Interested candidates please apply in confidence to: careers@amo.on.ca by January 11, 2022.

<u>Supervisor, Court Operations & Administration - City of Brampton</u>. Reporting to the Manager, Court Administration, this role is responsible to coordinate the daily operation and administration of the Courthouse by providing leadership, supervision and coordination of Court staff. Applications must be received by: January 14, 2022.

<u>Co-ordinator of Special Operations - City of Greater Sudbury</u>. Develop and co-ordinate CGS's Emergency Management Program in line with emergency management best practices and legislative requirements. Qualified candidates should submit their résumé by January 17, 2022 to <u>hrjobs@greatersudbury.ca</u>.

<u>Commissioner, Community Services - Region of Waterloo</u>. Reporting to the CAO, you will establish corporate strategic priorities for the Region and ensure that Departmental initiatives and programs are integrated and aligned with these priorities. To apply for this position, please visit <u>here</u> by February 4, 2022.

About AMO

AMO is a non-profit organization representing almost all of Ontario's 444 municipal governments. AMO supports strong and effective municipal government in Ontario and promotes the value of municipal government as a vital and essential component of Ontario's and Canada's political system. Follow <u>@AMOPolicy</u> on Twitter!

AMO Contacts

AMO Watch File Tel: 416.971.9856 <u>Conferences/Events</u> <u>Policy and Funding Programs</u> <u>LAS Local Authority Services</u> <u>MEPCO Municipal Employer Pension Centre of Ontario</u> <u>ONE Investment</u> <u>Media Inquiries</u> Tel: 416.729.5425 <u>Municipal Wire, Career/Employment and Council Resolution Distributions</u>

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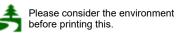
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FREQUENCY

