

COVID-19 Policy Brief



# ***GROWING A MORE RESILIENT FOOD SUPPLY CHAIN IN ONTARIO***



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## GLOSSARY:

### **AgriStability Program:**

A margin-based program designed to help farmers deal with significant income declines. It provides up to \$3 million when participants experience large declines in their net incomes due to production losses, cost increases, or market conditions.

### **Broadband:**

In comparison to dial-up that requires an internet connection to be made each time, broadband internet is always on and provides higher speeds than dial-up service.<sup>1</sup>

### **Business Risk Management Programs:**

A range of programs Ontario farmers rely on to manage and mitigate risks beyond their control, like weather, fluctuating costs, and market prices.<sup>2</sup>

### **Fixed Wireless:**

Brings the internet signal to an individual's residence through radio waves transmitted by a base station to a receiver in their home. Generally used in rural areas where establishing broadband infrastructure is expensive.

### **Food Fraud:**

When food is purposefully misrepresented for economic gain.<sup>3</sup>

### **Food Insecurity:**

A situation in which there is a compromise in the quality or quantity of food that is consumed or a reduction in food intake and disrupted eating patterns.<sup>4</sup>

### **Food Miles:**

The distance that food takes to get from a farm to an individual's plate.

### **Food Systems:**

The complex and interconnected web of actors and activities involving the production, processing, transportation, consumption, and disposal of food products.<sup>5</sup>

### **Illegal, Unreported, and Unregulated (IUU) Fishing:**

Includes a range of activities, such as fishing without a valid licence, misreporting catch data, falsifying or concealing the vessel's identity or itinerary, or obstructing the work of inspectors/enforcers. These practices pose serious risks to the health of our oceans, wild fish populations, fishers, and consumers.

### **Local Food:**

Food that is grown, processed, sold, and consumed within the same local area.<sup>6</sup> According to the Canadian Food Inspection Agency, food is considered local if it is either grown in the province in which it is sold or if it is sold within 50 kilometers of the province it was grown in when crossing provincial borders.<sup>7</sup>

### **Meat Adulteration:**

When meat with a higher commercial value has been replaced or substituted with a meat of lower value or undesirable alternatives.

### **Satellite Internet:**

The use of a satellite dish for two-way (upload and download) data communications.

### **Universal Basic Income:**







Government transfer of money to individuals/households without strings attached about how it is used.



# EXECUTIVE SUMMARY

Contributing over \$47 billion to the provincial GDP and supporting close to 861,000 jobs, Ontario’s agri-food sector is a significant economic driver that has the potential to stimulate the province’s economic recovery. With the onset of the COVID-19 pandemic in March 2020, the food supply chains in Ontario and Canada experienced numerous pressures such as panic buying and shifts in consumptions levels and consumer spending (Appendix I).<sup>8</sup> Ultimately, while the pandemic caused parts of the food supply chain to bend, the chain itself did not break.<sup>9</sup> The food system stabilized relatively quickly and continued to provide Canadians with uninterrupted access to food.<sup>10</sup> This owes to the overall strength and resiliency of the many sub-sectors that make-up Ontario’s complex food supply chain (Table 1).<sup>11</sup>

**Table 1: THE FOOD SUPPLY CHAIN**

Farms and fisheries 	Handling and processing centres 	Storage, warehouses, and cold houses 	Transportation and distribution 	Market and retail centres 	Food service 
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The pandemic not only exposed certain issues, such as the inadequacies associated with the AgriStability program, but it also accelerated longstanding issues, such as the shift to e-commerce and rising food insecurity – issues that will extend beyond the pandemic if left unaddressed.<sup>i</sup>

This policy brief examines six pain points Ontario’s food supply chain experienced with the onset of COVID-19. It also presents policy reforms which aim to strengthen the food supply chain and grow a more resilient, globally competitive, and just system better positioned to withstand future disruptions. Specifically, the report recommends policymakers:

- 1. Support growing demand for local food and the shift to online sales** by continuing to invest in relevant programs that help producers transition online;
- 2. Address shortcomings associated with the AgriStability program** by increasing the payment cap and payment trigger, and processing claims more quickly;
- 3. Eliminate red tape issues facing farmers**, including inter-provincial trade barriers for meat and meat products;
- 4. Address looming labour shortages in agriculture** by investing in campaigns to attract youth to the sector and reduce other obstacles to entry such as access to land and capital;
- 5. Tackle food fraud** through improved seafood labelling and a pragmatic plan; and
- 6. Take action on rising rates of food insecurity** by collecting data, setting targets, and investing in road development in remote communities.

<sup>i</sup> This policy brief examines six themes or pain points that Ontario’s food supply chain experienced with the onset of COVID-19. Certain challenges outlined in Appendix I were out of scope for this policy brief, such as the difficulties facing the restaurant industry as a result of COVID-19.

# INTRODUCTION

As has been the case across many sectors, COVID-19 introduced new challenges for Ontario's food supply chain and exacerbated old ones (Appendix I). While the COVID-19 pandemic introduced difficulties for businesses across the agri-food sector, the sector seemed to have stabilized quickly and continued to provide Canadians with access to fresh, nutritious, and safe food. Not surprisingly, consumer confidence in the food supply chain is high and reflects the food supply chain's resiliency in the wake of the greatest disruption in a century.<sup>12</sup> A recent survey<sup>ii</sup> conducted by Dalhousie University's Agri-Food Analytics Lab found that almost 82 percent of Ontarians were confident in our food supply chain.<sup>13</sup>

However, Canada could have been better prepared to handle the impact COVID-19 has had on our food supply chain. Canada's emergency response systems were not designed to address global challenges like a pandemic since they are rooted in the assumption that threats are usually local and short-term.<sup>14</sup> While the federal government implemented emergency preparedness plans following the SARS outbreak in 2003, those plans largely sat on the shelf. Canada also lacked an agri-food emergency response and recovery plan.<sup>15</sup>







Second, COVID-19 has exacerbated longstanding issues, including the mounting number of risks and uncertainties facing farmers, inadequacies associated with insurance programs like AgriStability, shortcomings associated with seafood labelling in Canada, and growing food insecurity due to the fallout of the pandemic.

Finally, COVID-19 is the third coronavirus outbreak in the last 16 years, and it is not likely to be the last. Since an entirely new public health emergency may emerge in future years, governments and industry must learn from COVID-19 and develop emergency plans and strategies to respond quickly to future disruptions and maintain the strength of the sector (Table 2).<sup>16</sup> This report therefore makes a series of recommendations to help strengthen Ontario's food supply chain. Taken together, these recommendations could grow a more resilient and just system better positioned to withstand future disruptions.



ii A survey conducted by Dalhousie University's Agri-Food Analytics Lab in late February 2021, with 10,005 Canadians.

**Table 2: SNAPSHOT OF THE AGRICULTURAL SECTOR AND FARMERS IN ONTARIO**

	<p>In 2019, the province estimated that Ontario's agri-food value chain contributed <b>\$47.3 billion</b> to the provincial economy</p>
	<p>Almost <b>861,000</b> (or 12% of Ontario's workforce) are employed in the agri-food sector</p>
	<p>Ontario is home to <b>49,600 farms</b>, with an average farm size of 249 acres</p>
	<p>Ontario farmers grow over <b>200 commodities</b></p>
	<p><b>30%</b> of farmers are female and <b>9%</b> of farmers are under the age of 35</p>
	<p>Many farmers use <b>technology</b>, like:</p> <ul style="list-style-type: none"> <li>• GPS technology</li> <li>• Automated steering</li> <li>• Robotic milking</li> <li>• Automated animal feeding</li> <li>• Greenhouse automation</li> <li>• Environmental controls for livestock housing</li> </ul>



**Did you know?**

Choosing fresh, local food and supports economic growth and helps create jobs in Ontario

Credit: Ontario Federation of Agriculture "I ♥ Local Social Media Planning Kit."

One year into the pandemic, it is also clear that COVID-19 has challenged several assumptions among consumers.<sup>17</sup> While many would view grocery shopping and cooking as a banal necessity, the food supply chain is dynamic and interconnected, with many sub-sectors (Table 1). Prior to the pandemic, also consumers took for granted access to safe, stable, and high-quality food. However, temporary shortages and empty grocery store shelves during the first wave brought about a heightened awareness of Canada's food system and food security. Further, although the agri-food sector is viewed as traditional, the sub-sectors that makeup the food supply chain have not remained static. For instance, technological disruptors (i.e., food delivery apps and meal kits) have entered the market and changed the way that Canadians prepare and consume meals. During the pandemic, many restaurants and grocery stores also shifted to e-commerce.

COVID-19 has therefore raised awareness of Ontario's food supply chain and its inherent interconnectedness and importance. It has also brought about a greater appreciation for the seamlessness in which the various sub-sectors within this supply chain continue to work to ensure Ontarians have access to food. As we look towards economic recovery, this policy brief explores six pain points that policymakers and consumers should be aware of and prioritize.



A person wearing a red shirt and a blue and white striped apron is holding a wooden crate filled with fresh vegetables. The crate contains several purple eggplants, yellow and orange bell peppers, red tomatoes, purple onions, and ears of corn. The background is a blurred green field, suggesting a farm or market setting. The overall tone is bright and natural, with a dark teal triangle in the top right corner.

CHAPTER 1

# ***THE APPETITE FOR LOCAL FOOD AND SHIFT TO ONLINE SALES***

While interest in local food and the shift to e-commerce are not new, both have grown during the COVID-19 crisis. This chapter outlines the factors driving demand for local food, shift to virtual farmers' markets, and programs that should be prioritized to help the agri-food industry transition to online sales during the pandemic and beyond.

## The Impact of Local Farmers' Markets

At the start of the pandemic, some Ontarians were hesitant to shop in-person and sought alternatives online. In addition, many Ontarians were looking for ways to support local, including farmers, impacted by the pandemic. This has boosted direct farm sales and led to the emergence of online sales platforms and virtual farmers' markets, which will be integral to Ontario's economic recovery and competitive advantage.

Research by Regional Analytics and Planscape Inc.<sup>iii</sup> found that farmers' markets in Ontario generate broad social and economic benefits. These venues provide consumers with an opportunity to interact directly with farmers and other small, local producers. Many farmers' markets also serve as community institutions and help attract tourists by offering live music, workshops, or demonstrations.<sup>18</sup> Furthermore, spending at a farmers' market creates a multiplier effect as shoppers often visit neighbouring businesses in the commercial area in which the market is located. For vendors, farmers' markets provide a stable sales channel, an alternative source of income, an opportunity to launch new products, a higher financial return through direct sales, and the potential to grow their businesses. With farmers' markets and virtual farmers' markets on the rise, these benefits are likely higher.

## The Appetite for Local Food

Local food is sold through many channels, including farmers' markets, farm stands, pick-your-own farms, food boxes, online directories (i.e., the Hamilton Farm Map and Directory), and major retail chains and distributors. As outlined below, consumers, restaurants, and grocery stores seek out local food for many reasons:

- Shorter food miles and lighter environmental footprint;
- Freshness, flavour, and nutritional benefits (as local food is usually picked at its peak);<sup>19</sup>
- Opportunity to support local jobs and regional economies; and
- Opportunity to differentiate their business, menu, and product offerings from competitors.<sup>20</sup>

The appetite for local food has remained strong despite COVID-19. In October 2020, close to 80 percent of respondents who participated in a survey conducted by Dalhousie University's Agri-Food Analytics Lab<sup>iv</sup> said they were willing to pay a premium for locally grown produce at the grocery store, though only one in four respondents actively sought such opportunities.<sup>21</sup> Aside from cost, other factors may be dissuading some Canadians from purchasing local food (i.e., if local food is not easy to find or not labelled as such).<sup>22</sup> Communicating the benefits associated with local food in buy local campaigns initiated by various stakeholders during COVID-19 could help encourage consumers to buy and support local food and producers.

iii Fore more information on Regional Analytics and Planscape Inc.'s 2011 study entitled Economic Impacts of Farmers' Markets in the Province of Ontario, see: <http://www.planscape.ca/planscapePDFs/46-plan1.pdf>.

iv A survey conducted by the Agri-Food Analytics Lab at Dalhousie University in early October 2020, with 10,266 Canadians.



## The Shift to Virtual Farmers' Markets

With COVID-19, some farmers' markets decided to move online given social distancing requirements. For instance, Green Circle Food Hub was formed at the start of the pandemic by farmers in Ontario and allows shoppers to pre-order food and non-food products for curbside pick-up or delivery in select cities. Virtual farmers' markets serve as a year-round sales outlet for vendors – as opposed to a seasonal channel. They also address the barriers that historically prevented some Ontarians from frequenting in-person farmers' markets, namely limited hours and being difficult to access without a car.<sup>23</sup> As Ontarians grow increasingly comfortable with online grocery shopping, virtual farmers'

markets will become more common. Thus, there is a need for the Province to continue to support online resources that help consumers source and purchase local food.

At the same time, for virtual farmers' markets and online sales to succeed, fast and reliable broadband is essential. Selling products online also requires businesses to transport and distribute these goods to consumers, underscoring the need for effective rural and northern transportation networks as well – an issue explored in Chapter 6.

## Ontario Economic Report Identifies Buy Local Campaigns and Broadband Investments as Key Business Priorities

In January 2021, the OCC released its fifth annual Ontario Economic Report (OER), which provides policymakers with the data from the business community. The report found that the business community's confidence in the province's economic outlook dropped to 21 percent – a record low since the OCC began measuring business confidence in 2011. Not surprisingly, business confidence varied by sector and size of business, with accommodation and food services being among the most pessimistic sectors, and small businesses having less confidence than medium and large ones. Among businesses that were confident in the province's economic outlook, they attributed their confidence to the provincial and federal governments' responses to COVID-19, as well as buy local campaigns.

When asked what recovery or stimulus priorities the province should focus on to support their organization or sector, the top four priorities included: encouraging Ontarians to buy local<sup>v</sup> and investing in broadband infrastructure. Broadband investments were critical to all business segments, while encouraging Ontarians to buy local was more of a priority for smaller organizations and organizations in retail and agriculture. When taken together, this year's OER underscores the importance businesses, particularly small businesses in retail and agriculture, place on broadband and buy local campaigns for their bottom line.<sup>vi</sup>

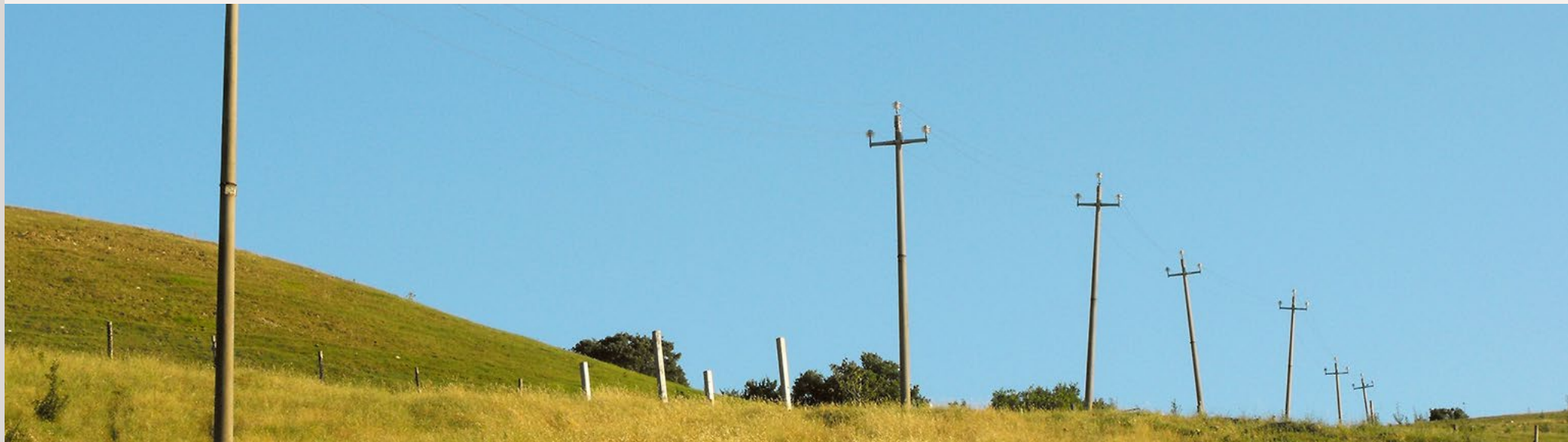
v In the winter of 2019, the Government of Ontario undertook stakeholder consultations to improve local food procurement within the public sector. On March 18, 2019, the Province announced its commitment to remove red tape issues that hinder post-secondary institutions, hospitals, municipalities, and other organizations within the broader public sector from procuring local food. This initiative was part of the objectives outlined in the Local Food Act, 2013.

vi For detailed findings on the 2021 Ontario Economic Report, see: Daniel Safayeni et al. 2021. 2021 Ontario Economic Report. OCC. <https://occ.ca/wp-content/uploads/2021-Ontario-Economic-Report-1.pdf>.

# The Digital Divide: COVID-19 and the Heightened Need for Broadband

Although access to reliable broadband internet has been a longstanding issue in Ontario, it has been magnified by COVID-19. Broadband has enabled businesses to sell their products online and consumers to purchase food and other products virtually. However, this digital shift also presents significant challenges for businesses, farmers, workers, and consumers with unreliable or nonexistent internet in Ontario, particularly in rural, remote, and northern communities.<sup>vii</sup> These Ontarians rely on Digital Subscriber Line (DSL), cable modems, fixed wireless, or satellite. These options are not only slower, more costly, and have less bandwidth than fibre internet, they are insufficient in today's economy.<sup>viii</sup>

High-speed internet is essential to participating in today's economy and unlocking the long-term economic potential<sup>ix</sup> of rural, remote, and northern communities.<sup>24</sup> Appendix II also outlines how high-speed internet is critical for precision agriculture. The \$2.8 billion investment in broadband infrastructure outlined in Budget 2021, Ontario's Action Plan: Protecting People's Health and Our Economy, is welcome news as it will improve access to reliable internet across Ontario by 2025.



- vii Twelve percent of Ontarians live in communities without access to minimum internet service. The Northern Policy Institute estimates that almost 16 percent of northern Ontarians continue to experience bandwidth speeds below the Canadian Radio-television and Telecommunications Commission's (CRTC) target.
- viii According to the CRTC, a minimum of 50 megabits per second (Mbps) for downloads and 10 Mbps per second for uploads is needed to participate in the digital economy. There are concerns that although 50/10 Mbps is the baseline minimum, by the time rural and remote communities have access to this baseline, it may be too slow to keep pace with technological demands.
- ix Prior to the pandemic, the Ontario Federation of Agriculture (OFA) estimated that increasing broadband availability by 10 percent could create 7,500 new jobs in rural Ontario, including high-skilled jobs tied to the installation, deployment, and maintenance of digital broadband infrastructure. Bringing internet access to underserved southwestern Ontarians could also increase wages by \$129 million. With more money in their pockets, this could support spending on local goods and services, generating additional revenue for rural economies.

## Supporting the Agri-Food Industry's Transition to Online Sales

Recognizing the importance of e-commerce in the COVID-19 era, the provincial and federal governments launched the Agri-Food Open for E-Business program in 2020 to help farmers' markets, food producers, retailers, garden centres, nurseries, greenhouses, and agricultural associations expand their presence online.<sup>25</sup> Funded through the Canadian Agricultural Partnership (CAP), the program included two funding streams<sup>x</sup> and provided a total of \$3.5 million in funding. The program received an overwhelmingly positive response: intake for the program was suspended because it was oversubscribed within the first few weeks.<sup>26</sup> On December 10, the province announced that 700 businesses would receive funding through one of the two funding streams.<sup>27</sup>

In comparison to other businesses, local food has been slow when it comes to transitioning to e-commerce. Given the high demand for this timely program, the Province should work with the federal government to open another intake round and increase the funding available through the program to help more agri-food businesses invest in online infrastructure that supports e-commerce sales.<sup>28</sup> Increasing local food sales will help grow the agri-food sector, create jobs, and stimulate growth during Ontario's economic recovery.

Additionally, several provincial programs are in place to help rural communities revitalize their downtown cores, including the Downtown Business Revitalization program through the Ontario Ministry of Agriculture, Farming and Rural Affairs (OMAFRA). The Province should consider how it can help businesses outside the downtown core increase their customer base and sales. To this end, the province should therefore establish a separate stream of the Digital Main Street (DMS) program<sup>xi</sup> to help rural and agri-businesses transition to online sales given their unique needs.

Demand for such programs evidently exists, prompting some municipalities, such as Durham Region, to create their own initiatives to help local businesses with e-commerce and digital transitions. Funded in part by the Region of Durham, the Digital Durham program<sup>xii</sup> supports businesses in this region who do not qualify for the DMS program. Given the uncertainties surrounding when vaccines will be distributed in Ontario and the potential for subsequent waves, small businesses continue to be in a vulnerable position. Implementing initiatives to that help Ontario small businesses digitize their operations and sales channels will help these firms while spurring economic activity to support the province's economic rebound.<sup>29</sup>

- x The Agri-Food Open for E-Business program includes two funding streams. Under the "Bring Your Business Online" stream, applicants will receive up to \$5,000 to establish an online business and marketing presence. Under the "Develop Online Business Opportunities," eligible businesses or organizations (either independently or in partnership) can apply to receive up to 90 percent of eligible costs (up to \$75,000 per project) to develop and implement online business opportunities on a larger scale. According to the provincial website, applicants can be approved for one project under each program stream.
- xi The Digital Main Street (DMS) program is funded by the Government of Canada and Government of Ontario. Several programs are available through the DMS. The Digital Transformation Grant program provides eligible small businesses with \$2,500 to help them adopt technologies and develop digital literacy skills. The Digital Service Squad Grant program provides small businesses with one-on-one training and advisory support.
- xii The Digital Durham Program is available to businesses between one and five years old that can provide proof of existing/current sales and are not Main Street businesses. The program provides businesses with training to expand their digital presence and mentoring on issues such as legal and accounting. After completing the training, businesses can apply for a \$2,500 grant to help them implement their digital transformation plans.



# Investing in Ontario Food Hubs

Food hubs help producers and agri-food entrepreneurs overcome common challenges by managing the aggregation, processing, distribution, marketing, and sales of food products. There is a need for distribution channels, such as food hubs, that help producers reach consumers. These facilities help local producers share distribution costs, achieve economies of scale, and increase their sales.<sup>30</sup> By bridging the gap between local food producers, retailers, and the food service industry, food hubs help increase sales and ensure the vitality of Ontario farms.



## RECOMMENDATIONS:

- Ontario’s Ministry of Agriculture, Food and Rural Affairs should continue to support online resources, such as [Ontariofresh.ca](https://ontariofresh.ca)<sup>xiii</sup> and the Greenbelt Farmers’ Market Network,<sup>xiv</sup> that enable consumers and the food service industry to easily source and purchase local food.
- The Government of Ontario’s buy local campaign should continue to educate consumers on the many benefits associated with purchasing local food, as well as work with agricultural and food industry stakeholders to improve these campaigns.
- The Government of Ontario should work the Government of Canada to re-open the Agri-Food Open for E-Business program and increase the funding pool given its popularity and the importance of helping agri-food businesses transition to online sales.
- The Government of Ontario should create a separate stream for rural and agri-businesses through its Digital Main Street program.
- The Government of Ontario should invest in food hubs to help farmers and local food producers increase their production and access refrigerated storage, packaging, marketing, and distribution channels.

<sup>xiii</sup> Ontariofresh.ca is the province’s largest local food platform, with over 2,000 members currently using the platform. Developed and managed by the Greenbelt Fund thanks to support from the Government of Ontario, the platform is being expanded beyond the current business-to-business capabilities to include a business-to-consumer service. Accordingly, the new site will support local food and drink producers by helping them connect with and market their products to consumers.

<sup>xiv</sup> In response to the COVID-19 pandemic and changing consumer habits, the Greenbelt Farmers’ Market Network (GbFMN) undertook an Emergency Digital Markets Program. The program provided 44 farmers’ markets and their vendors with fully funded e-commerce platforms, which helped these organizations transition to virtual farmers’ markets. Businesses participating in these 44 farmers’ markets reported sales of almost \$1.3 million. The Greenbelt Foundation operates as an independent, charitable organization, with funding from the province and other public and private support.

# **SUPPORTING FARMERS AND PROMOTING LOCAL FOOD BY THE ONTARIO FEDERATION OF AGRICULTURE (OFA)**



## **PROUD SUPPORTER**

*of the Always in Season project*



The Ontario Federation of Agriculture (OFA) is a farm organization representing 38,000 farm families across the province that advocates on key issues faced by the industry.

Membership surveys conducted by the OFA during the pandemic revealed the hardships and strain farmers experienced in 2020. They also revealed the unique and unexpected benefits of the increased consumer interest in local food and online sales during this unprecedented period. In fact, almost one-third of respondents who participated in the OFA's October 2020 survey said they experienced positive benefits, including new customers, increased consumer interest and awareness, new direct/online marketing opportunities, and increased sales. Recognizing the challenges and opportunities COVID-19 brought about, the OFA implemented several initiatives to help put Ontario farmers and local food and beverage on the map.

To begin, with funding from the Canadian Agricultural Partnership, the OFA along with the Wilton Consulting Group developed the Always in Season Toolkit. It provides practitioners, including economic developers and planners, as well as municipalities and community based agricultural organizations, with important information to support their local food supply chains, such as important days, weeks, and months for the agricultural sector. Stakeholders can leverage these dates to celebrate farmers, increase awareness of local food, and expand market opportunities for local businesses. The toolkit provides useful guides and resources to help farmers and agri-food businesses transition to e-commerce. Finally, the toolkit identifies funding opportunities for farmers. Ultimately, the toolkit helps practitioners increase local food sales and enhance agri-tourism and culinary tourism.

Second, the OFA launched its 'I ♥ Local Social Media Planning Kit.' This kit provides community organizations and municipalities with graphics and messages to help stakeholders celebrate agriculture, food and beverage producers, and agri-tourism online. These materials can be used on significant dates (i.e., Canada's Agriculture Day, Canadian Agricultural Literacy Month, Local Food Week, Food Day Canada, and Ontario Agriculture Week) and year-round. The kit includes content that educates Ontarians about the economic impact of the agricultural sector and the benefits of shopping local.

Finally, the OFA partnered with Local Line for a one-year pilot that allowed OFA members to use Local Line's online marketing platform. The platform helps farmers (as well as farmers' markets and food hubs) sell their products directly to consumers, manage their inventory, track invoices and payments, and fulfill orders. Taken together, these three initiatives are helping OFA members increase their sales and grow their businesses to meet the growing demand for local food.





# ***IMPROVING THE AGRISTABILITY PROGRAM***

Prior to COVID-19, Canadian farmers experienced significant hardships due to rising input costs, labour shortages, unpredictable weather, international trade disputes, and rail blockades.<sup>31</sup> With the pandemic, farmers have had to contend with new challenges.<sup>32</sup> This chapter examines the AgriStability program, which is the only tool designed to stabilize farm incomes during difficult economic periods. The program needs urgent reform, and three critical changes are outlined to better support Ontario farmers.





## Overview of Business Risk Management Programs in Ontario

Farming is not only a capital-intensive undertaking that requires many expenditures (i.e., farmland, equipment, technology, and labour), it has also become increasingly unpredictable and risky. In 2020 some farmers experienced increased costs for livestock feed, labour, and supplies/equipment, along with lost income due to the closure of processing plants, restaurants, and in-person farmers' markets, declining commodity prices, and challenges accessing skilled labour for harvesting. These challenges underscore the need for well-funded government programs that provide farmers with timely supports to mitigate risks while enabling them to continue investing in their businesses to increase their long-term competitiveness.<sup>33</sup>

In Ontario, farmers can pay to participate in four Business Risk Management programs that provide financial support to help mitigate against risks.<sup>xv</sup> The following section provides an overview of one of these programs in urgent need of reform – the AgriStability program. As the risks facing farmers have changed, this program must evolve to ensure producers have the right tools at their disposal. The program is also complicated, which has contributed to its dwindling uptake. Programs to help farmers and other small businesses must be simple and easy to understand as business owners are busy running their operations and often lack the resources needed to navigate complicated government programs.

xv These four programs are AgriStability, Production Insurance, AgrilInvest, and the Ontario Risk Management Program (RMP). The first three are funded by the federal and provincial government, while the RMP is funded by the Ontario government. Each program covers different risks: AgriStability provides coverage for large declines in income; Production Insurance provides coverage for yield reductions and quality losses caused by weather, infestation, disease, or wildlife; AgrilInvest provides coverage for small declines in income; and the RMP provides coverage for fluctuating costs and markets.

xvi Agricorp is an agency of the Government of Ontario that delivers programs to help producers manage risks.

xvii Farmers can enroll in AgriStability by paying \$315 for every \$100,000 of reference margin.

xviii Farmers can speak with an Agricorp specialist for more information. Agriculture and Agri-Food Canada also developed the AgriStability estimator to help participants better understand how payments are calculated: <https://ase-eas.agr.gc.ca/ASE-EAS/quickEstimator/form/en>.

## What is the AgriStability Program?

The AgriStability program is a margin-based program designed to help farmers deal with significant income declines. It provides up to \$3 million when participants experience large declines in their net incomes due to production losses, cost increases, or market conditions.<sup>34</sup>

AgriStability falls under the Canadian Agricultural Partnership (CAP) program and is delivered by the federal government for the provinces/territories. In Ontario, the program is delivered by Agricorp.<sup>xvi</sup> It is funded through the annual fees that producers pay to participate in the program, as well as through the federal and provincial governments (60 and 40 percent, respectively). To participate in the AgriStability Program, farmers can enroll in the program every year, pay a fee,<sup>xvii</sup> and submit a form by a certain deadline.

A payment is triggered to a participant if their net farming income (known as the production margin) in a given year is less than 70 percent of their recent net income average (known as the reference margin). Table 3 summarizes key concepts associated with this complex program.<sup>xviii</sup>

**Table 3: KEY TERMS ASSOCIATED WITH ONTARIO'S AGRISTABILITY PROGRAM**

Allowable Income and Expenses	Production Year Margin	Payment Trigger	Reference Margin	Olympic Average	Reference Margin Limit (RML)
<p>Allowable income includes the sale of commodities such as vegetables, fruits, and livestock.</p> <p>Allowable expenses include containers, fertilizer, pesticides, prepared feed, and machinery fuel.</p>	<p>Production margin refers to a farmer's net income in a given year – or their allowable income minus allowable expenses.</p>	<p>Payment is triggered if a farmer's production margin is less than 70% of their reference margin.</p>	<p>A benchmark used to determine if a farmer's current production margin has declined.</p> <p>A farmer's reference margin is determined by their five-year "Olympic average."</p>	<p>The Olympic average is calculated by removing the highest and lowest values in a farmer's last five production margins and averaging the remaining three numbers.</p>	<p>The reference margin cannot exceed the average allowable expenses for the three years used to calculate the reference margin. If it does, the lower amount is applied.</p>

Agricorp's website provides several scenarios to help illustrate how a payment is calculated for a farmer participating in the AgriStability program. As mentioned above, a payment is triggered when a farmer's production margin is less than 70 percent of their reference margin.<sup>35</sup> The following example assumes a reference margin of \$100,000, a payment trigger of \$70,000, and a production margin of \$60,000. In this case, the farmer's production margin (\$60,000) fell below their payment trigger (\$70,000). Based on the formula below, the farmer in this situation would receive \$7,000 for their income loss.

### SAMPLE SCENARIO

$$\text{Payment} = (\text{Payment trigger} - \text{Production margin}) \times 70\%$$

$$\text{Payment} = (\$70,000 - \$60,000) \times 70\%$$

$$\text{Payment} = \$7,000$$

## How Can the AgriStability Program be Improved?

There is a need to strengthen the AgriStability program with the agricultural sector being in a period of increased market volatility; with no indication that the volatility will decline. In March 2021, the federal, provincial, and territorial (FPT) agriculture ministers removed the Reference Margin Limit (RML)<sup>xix</sup> and made it retroactive for the 2020 program year. This will have several benefits, including: making the program simpler as well as more predictable and dependable; improving participation rates in the program across commodity groups; and narrowing the equity gap within this business risk management program. The following section outlines three reforms the province should also consider to improve the AgriStability program.

### Raise the Payment Cap

Given the many costs and uncertainties that COVID-19 has introduced for farmers, there is a need for the FPT governments to ensure AgriStability is sufficiently funded and provides adequate coverage for farmers. Ontario's AgriStability program witnessed significant cuts in 2013, with only minor changes since. The \$3 million payment cap has not been increased in over 20 years, while inflation has increased by over 45 percent and input costs have increased by over 70 percent during this period. The program has therefore become less responsive to the needs of farmers.<sup>36</sup> By raising the payment cap participants can receive through AgriStability, FPT governments could ensure the program is able to address the challenges facing participants.<sup>37</sup>

<sup>xix</sup> When the RML was in effect and applied, a farmer needed to have an extensive drop in their revenue in a program year to trigger support. For farmers with lower allowable expenses, such as cow-calf producers who typically produce their own feed and have fewer direct labour costs, the RML significantly decreased the likelihood that they would receive a payment and therefore decreased the value of the AgriStability program for these participants. Since the RML heavily limited payments for some enterprises and commodities, the program did not treat all farmers equally. In 2018, recognizing this inequity, FPT governments agreed to limit the RML to guarantee at least 70 percent of a producers' historical margin. This change made only slight improvements to the RML issue and added unnecessary complexity to the program.

## Increase the Payment Trigger (to 85 percent of the Reference Margin)

The payment trigger should be increased to 85 percent of the reference margin. Reducing the trigger from 85 percent to 70 percent undermined the stabilizing power of the AgriStability program for Ontario farmers.<sup>38</sup> As the following box illustrates, by increasing the payment trigger to 85 percent of the reference margin, the farmer in the previous scenario would receive \$17,500 to recoup their losses through the program. Increasing the trigger would likely improve participation rates in this program.<sup>39</sup>

While increasing the trigger for payments to 85 percent will have financial implications at a time when the Province is tackling COVID-19 and a growing deficit, the program's many shortcomings fail to adequately protect farmers and have led to industry frustration, and low participation rates.<sup>40</sup> The reforms outlined in this chapter will provide farmers with the resources they need to not only maintain their operations, but also make future investments that will stimulate economic growth.

### SAMPLE SCENARIO

Historical margin = \$100,000

Production margin = \$60,000

\*if the payment trigger was increased to 85% of the historical reference margin, the payment would be triggered when a farmer's net income falls below \$85,000 (\$100,000 X 85%\*)

Payment = (\$85,000 - \$60,000) x 70%\*

Payment = \$17,500



## Speed Up the Processing of Interim and Full Payments

The Province should reduce the amount of time that farmers must wait to receive a payment through AgriStability. A significant amount of time can lapse between when a loss has occurred, when paperwork is submitted to Agricorp, and when an eligible producer receives full payment. Producers can wait over a year to receive their payment.<sup>xx</sup> Producers can apply for an interim payment<sup>xxi</sup> if they have completed a production cycle and at least six months of farming activity in the year, or if they cannot undertake farming activity for reasons outside of their control. However, to address the long window between an application and payment, the Province should implement processes to expedite requests for full and interim payments, thereby ensuring the program is responsive and provides farmers with much needed cash flow to recoup their losses.<sup>41</sup>

Failing to speed up payments and increase coverage given the new challenges brought on by the pandemic could lead to the closure of cash-strapped family farms. The loss of Ontario farms would be devastating for Ontario: impacting rural communities, local economies and, if the issue becomes widespread, food security in the long run.<sup>42</sup>

### RECOMMENDATIONS:

- The Government of Ontario should encourage the federal government and other provinces and territories to implement the following reforms to the AgriStability program:
  - Increase the \$3 million payment cap available to eligible participants; and
  - Increase the payment trigger to 85 percent of the historical reference margin.
- The Government of Ontario should put systems in place to assess claims and process full and interim payments more quickly through the AgriStability program.

xx During the 2018-20 program years, interim AgriStability payments were processed in an average of 32 days. Since 32 days is the average, some producers wait longer periods of time to receive their interim payment, especially if they experienced a significant loss and additional paperwork is needed.

xxi Agricorp typically processes most interim payments within a month or two of receipt, although this varies from year to year.

## **ENCOURAGING CONTINUED GOVERNMENT INVESTMENT IN BUSINESS RISK MANAGEMENT PROGRAMS BY THE BEEF FARMERS OF ONTARIO (BFO)**

For close to 60 years, Beef Farmers of Ontario (BFO) has been the advocate for the province's 19,000 beef farmers. The beef sector is an important economic driver in Ontario, contributing \$2.7 billion to the provincial GDP every year. Gross sales from the sector exceed \$13 billion annually and sustain over 61,000 jobs in Ontario.

Although the sector is positioned for continued growth, various challenges and uncertainties put Ontario's beef sector in jeopardy. These include:

- More frequent and volatile shifts in global commodity markets;
- Increased competition from lower cost, imported products; and
- High land prices and annual interest payments.

Even with sizeable off-farm income and careful savings, Ontario farmers operate in a challenging financial environment. Farmers can only manage a few losses and setbacks before having to make difficult choices about their businesses. When adequate farm insurance programs were not available during previous crises to mitigate against such risks and disruptions, ad hoc programs were developed. These programs did not produce ideal solutions for Ontario farmers.

Ontario's beef sector has the potential to be a key driver of economic recovery, but a robust suite of business risk management programs, like the Ontario Risk Management Program (RMP), are needed. These programs ensure farmers have the tools needed to make new and continued investments in their operations, as well as the confidence to grow their businesses.

The RMP fills a critical gap for commodity farmers in Ontario that do not have access to other risk management programs. The RMP is a cost-shared insurance program offered to the beef, pork, veal, sheep, grains, and horticulture sectors, and designed to help

stabilize the industry by providing partial financial protection against global downturns in commodity market prices.

While the program has functioned well, the funding cap placed on the RMP severely limits the program's effectiveness and its ability to protect Ontario producers against the business and agricultural risks they face. For example, the beef program in 2020/2021 is only expected to cover 40 to 45 percent of what was insured at the beginning of the production year. Producers are therefore paying into a program that provides them with a fraction of the insurance benefits they expected to receive.

Recognizing the many challenges facing farmers during COVID-19, the Province expanded the RMP by an additional \$50 million in July 2020, increasing the program to \$150 million in funding. While this increase was welcomed by producers, additional funding is still required to ensure sufficient insurance coverage for all participating commodities.

Government investments in farm insurance programs like the RMP not only benefit farmers, but the entire province. Cummings and Associates' 2015 study found that every \$1 invested in Ontario's RMP generated \$2.24 in positive economic activity. Without the RMP, 62 percent of farmers would have let go of their employees, 36 percent would have downsized or left the industry altogether, and 24 percent said they would not have invested in expansion and farm improvements. Adequate funding in Ontario's RMP will ensure farmers can manage risks, invest in their operations, create new farm jobs, and pursue market opportunities – all of which will support their economic recovery from the COVID-19 pandemic.



# ***REDUCING RED TAPE FOR ONTARIO FARMERS***

Chapter 3 examines three regulatory issues facing Ontario farmers - namely interprovincial trade barriers for meat and meat products, the Canadian Agricultural Partnership (CAP) program application process, and access to Crown land for agricultural and livestock production - and steps the province can take to address these issues.



## Addressing Interprovincial Trade Barriers for Meat and Meat Products

When it comes to meat inspection in Canada, a dual system exists. Federally inspected meat processing facilities (typically large plants) follow national standards and are overseen by the Canadian Food Inspection Agency (CFIA). Meat and meat products produced in these facilities can be exported to other countries and interprovincially across Canada. On the other hand, provincially licensed meat processing facilities are governed by separate provincial meat inspection systems. Meat inspection regulations vary from province to province, and products produced or processed in these facilities are sold within their own provincial borders.<sup>43</sup>

Historically, the *Safe Food for Canadians Act* prohibited the interprovincial movement of provincially inspected meat and poultry products. However, in May 2020 the CFIA announced the development of a temporary Ministerial Exemption to permit the movement of these products from provincially licensed processors – if such trade became necessary due to a shortage during COVID-19.<sup>44</sup>

While this temporary measure was meant to help preserve food security in the event of shortage during COVID-19, Ontario should consider long-term steps it can take to support local producers, meat processors, and others in the food supply. Given that Ontario and Quebec employ strict and similar provincial meat inspection requirements, Ontario should consider entering into a bilateral trade agreement with the Government of Quebec that would allow each province to recognize the other's provincial meat inspection system as equivalent.<sup>xxii</sup> The Government of Ontario should consider conducting an in-depth market analysis to understand what impact such an agreement would have for the sector.

With this agreement, those processing or producing beef, veal, pork, lamb, and other meat products in Ontario could market and sell their products in both Ontario and Quebec. This would enable producers and processors to reach more consumers, provide consumers with greater choice and access to local, Canadian meat and meat products, and maintain high food safety standards.<sup>45</sup>

## Improving the Canadian Agricultural Partnership (CAP) Program Application Process

In April 2018, Agriculture and Agri-Food Canada launched the CAP – a five-year, \$3 billion investment between the federal, provincial, and territorial governments, which focused on six priority areas<sup>xxiii</sup> and included six separate federal programs.<sup>46</sup>

Few agricultural producers are applying to the CAP program for funding because of the significant amount of paperwork that must be reviewed. Given this administrative burden, some producers opt to hire consultants to review the paperwork and prepare an application – costing farmers both time and money. The program is viewed as a source of red tape and few Ontario producers are attempting to access this funding pool.<sup>47</sup> Accordingly, the Government of Canada and Government of Ontario should consult the agricultural industry to streamline the application process for the CAP and reduce administrative burden.

xxii Since the federal government has jurisdiction over the interprovincial shipment of meat, any interprovincial shipments would need to comply with federal legislation.

xxiii The six priority areas under the Canadian Agricultural Partnership are: markets and trade; science, research, and innovation; risk management; environmental sustainability and climate change; value-added agriculture and agri-food processing; and public trust.

## Improving Access to Crown Land for Agricultural and Livestock Production

Current and prospective farmers also face challenges when it comes to accessing Crown land for agricultural and livestock production. Applicants can only apply to lease or purchase up to 160 acres of Crown land per application, but this acreage is insufficient for most farmers. It can also take up to two years for the Ministry of Natural Resources and Forestry to complete the approvals and permitting process. Since farmers typically require parcels of land larger than 160 acres, the province should consider creating a separate application stream that is more suitable for the agricultural industry when it comes to the disposition of Crown land. Transferring Crown land to productive farms could create economic activity in rural areas, spur jobs in agriculture and adjacent industries, help generate revenue for the province, and contribute to Ontario's food security.<sup>48</sup>

### RECOMMENDATIONS:

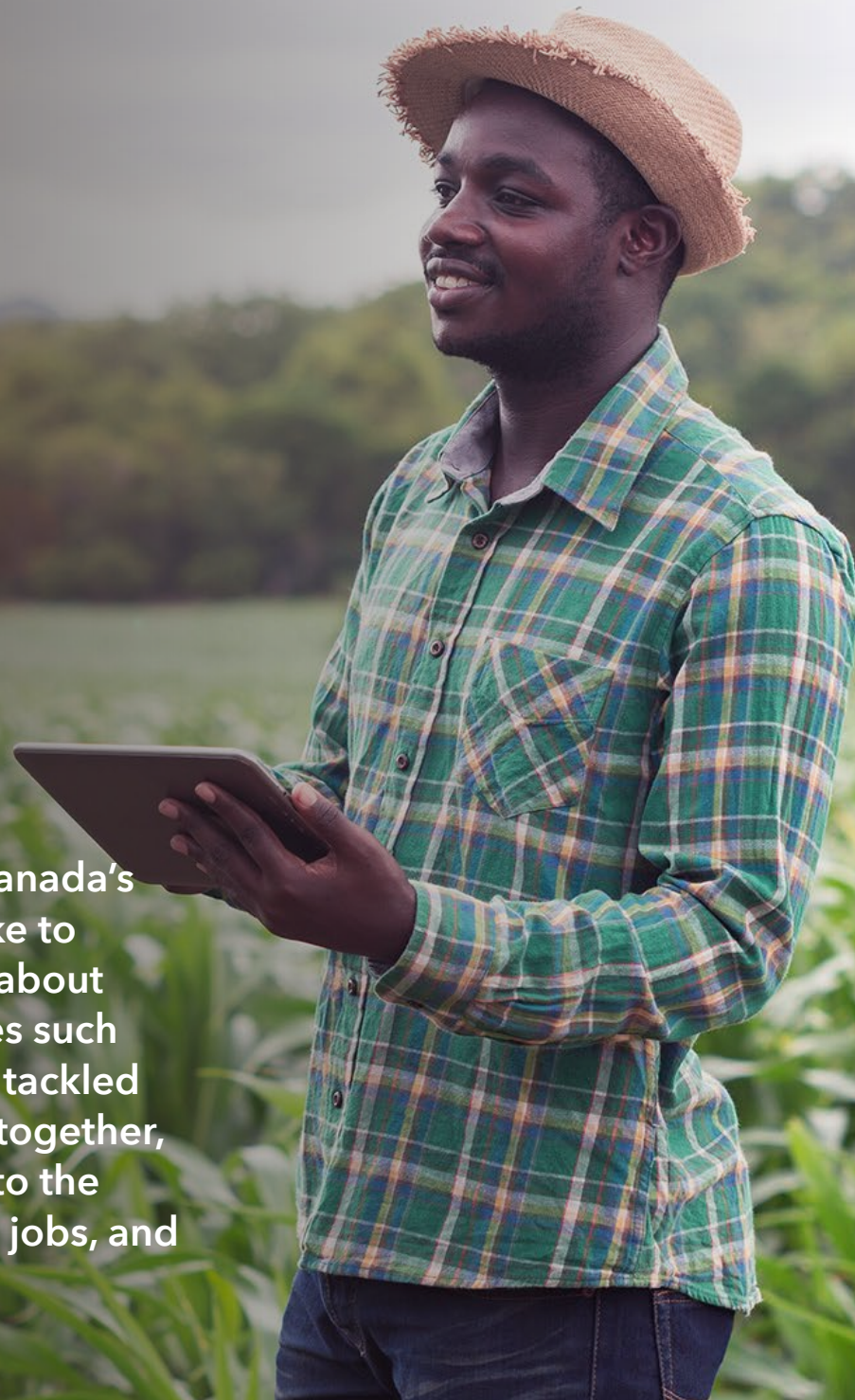
- The Government of Ontario should conduct an in-depth market analysis to determine what the impact would be on the meat and meat products sector if it entered into a bilateral trade agreement with the Government of Quebec to remove interprovincial barriers that prevent provincially licensed meat producers and processors from selling products across provincial borders.
- The Government of Canada and Government of Ontario should consult the agricultural industry to streamline the application process for the Canadian Agricultural Partnership program and reduce administrative burden.
- The Government of Ontario should create a dedicated application stream for prospective farmers seeking to purchase or lease Crown lands, including offering sufficient acreage to support economically viable farms.





# **SUPPORTING THE NEXT GENERATION OF FARMERS**

Chapter 4 examines the labour shortage facing Canada's agricultural sector and steps policymakers can take to address this issue. In addition to informing youth about the array of agriculture careers available, obstacles such as access to training, land, and capital need to be tackled to fill the projected labour shortage. When taken together, these steps could make farming more accessible to the next generation, support regional economies and jobs, and improve food security.





## The Looming Labour Shortage and Shifts in the Agricultural Sector

In Canada, the average farm operator is 55 years old and almost 40 percent of the agricultural workforce will retire in the next decade. It is estimated that 123,000 – or one in three agriculture jobs – will go unfilled by 2029, with Ontario accounting for the majority of Canada’s agricultural labour gap.<sup>49</sup> This situation is compounded by the fact that few young Canadians are entering the sector. The sector has faced challenges when it comes to recruitment as agricultural jobs are often located in rural areas, physically demanding, and are seasonal. Not surprisingly, the vacancy rates in agriculture were among the highest of any sector.<sup>50</sup>

These vacancies have real economic costs. In 2018, Canada’s agricultural sector was short 16,500 workers, which amounted to \$2.9 billion in lost revenue.<sup>51</sup> Almost 50 percent of farmers delayed or cancelled expansion plans because of their inability to find workers. This situation affects the sector’s ability to meet production goals, as well as hinders the sector to fully contribute the economy. In the coming years, the gap between the sector’s labour requirements and the available pool of domestic labour will widen considerably – a trend that could place more agricultural businesses at risk and impede the sector’s growth potential.<sup>52</sup>

While agriculture is a traditional, long-standing industry, technology and data are transforming the way food is produced, resulting in what has been dubbed the ‘Forth Revolution’ in agriculture. Farming is no longer solely about planting crops and raising livestock. For example, horticulturalists are working with drones to better program irrigation systems, while mechanics are tooling robots to pick berries in Ontario greenhouses. The ‘Fourth Revolution’ has in turn impacted the skills farmers need to succeed: skills modern-day farmers need include digital and data expertise, human resources and people management, business acumen as well as critical thinking and communication skills.<sup>53</sup>



## Strategies to Develop the New Generation of Farmers

Given the projected labour shortfalls and a lack of awareness of farming opportunities among youth, actionable solutions are needed. The OFA's "Food Literacy Attitude and Awareness" research project<sup>xxiv</sup> found respondents have old-fashioned opinions about farming and lacked knowledge of farming practices and food production systems,<sup>54</sup> underscoring the need to educate children and youth about the sector. Despite its size, scope, and economic impact, farming and agri-food careers are often overlooked. Farming is a science-based, technologically savvy industry. Careers in agriculture rely on technology, big data, and the internet of things – aspects that should be communicated to young people to help attract them to the sector.

Careers in agri-food are also not limited to agricultural degrees. For this reason, agriculture should be integrated into other academic disciplines, such as engineering and entrepreneurship, to create synergies between various post-secondary programs and attract workers with varied skillsets.<sup>55</sup> Policymakers also need to invest in innovative programs and facilities like those available at the W. Galen Weston Centre for Food at Durham College. This facility provides students with the academic and hands-on training needed to succeed in a variety of careers. By prioritizing agriculture and agri-food skills development and training, academic institutions and policymakers can support a thriving agri-food sector in Ontario and ensure the sector remains part of our competitive advantage.<sup>56</sup>

Finally, there is a need to address the barriers preventing some young people from pursuing a career in farming. Farmers require capital to purchase many items, including land, equipment, technology, seeds and/or livestock. Policymakers should consider what supports or incentives can be developed to help recent graduates successfully transition from the classroom to the farm. Supporting the next generation of farmers and farms – whether small-scale urban farming or larger scale farms – will bring farming to more communities, help raise awareness of the agricultural sector and food production, spur regional economic growth, and support food security.

### RECOMMENDATIONS:

- The Government of Ontario should work with relevant stakeholders to address labour shortages in the agricultural sector, including:<sup>57</sup>
  - Implementing a campaign that educates children and youth about farming, the agri-food sector, and the high-skilled and tech-driven careers available in this sector; and
  - Promoting careers in the agricultural sector within other fields of study (i.e., science, technology, engineering, and math).
- The Government of Ontario should leverage Durham College's thought leadership to invest in similar facilities that provide students with the academic and hands-on training needed for careers in the agri-food sector.
- The Government of Ontario should address the barriers that deter youth from pursuing farming careers, including access to land, training, and capital.

<sup>xxiv</sup> The project aimed to understand the current state of food literacy among Ontario consumers by measuring knowledge, attitudes, and awareness of local food, food literacy, food production, food access, food purchasing, food preparation, and agricultural practices. The advisory committee included the Ontario Public Health Association, Ontario Home Economics Association, AgScape, and Farm and Food Care Ontario. The partners collected data from two focus groups and a survey with 1,003 Ontarians, which targeted parents with children, teenagers (aged 13 to 17), and early millennials (aged 18 to 26).

## AGSCAPE: LEADING AGRICULTURE AND FOOD EDUCATION IN ONTARIO FOR 30 YEARS

Launched in 1991 and funded in part by the Ontario Ministry of Agriculture, Food, and Rural Affairs, AgScape provides Ontario students (from kindergarten to grade 12) and teachers with effective programs, activities, and resources to increase their awareness of the agri-food system and interest in agriculture and related careers, including:

- **Teacher Ambassador Program:** certified teachers deliver free, in-class and virtual lessons on various topics (i.e., local food, climate change, animal health and welfare, etc.) and careers in the agri-food sector for grades seven through 12.
- **thinkAG Career Competitions:** students in grades five through 12 learn about careers in the agri-food sector by visiting stations led by agriculture and food sector experts.
- **Business of Food (BOF) e-Learning Platform:** helps teachers build their knowledge of agriculture and food. The BOF consists of 24 modules that cover different topics and were developed with industry and education experts.
- **Digital Resource Library:** includes over 100 free resources (i.e., lesson plans, activities, and infographics, 75+ YouTube videos on agriculture and relevant careers) that teachers can download and share with students.
- **Free Resource Packages:** elementary and secondary school teachers can use these packages during Canadian Agriculture Literacy Month and throughout the year.
- **Virtual Camp Experience:** provides parents and teachers with free, online educational materials, videos, games, and daily activity schedules for children and youth on various food and farming topics, developed by certified teachers.

In 2019, AgScape reached over 750,000 students. With COVID-19, AgScape successfully shifted online. In 2020, they engaged over 400,000 students and over 5,000 educators. Despite the pandemic, this charitable organization continued to educate Ontario students about the agri-food sector and ensured educators have the resources they need to bring agriculture and food education into their classrooms.



Photo credit: AgScape



# TACKLING FOOD FRAUD

Since food fraud can rise during economic downturns, concerns have emerged that the pandemic may spur malfeasance among businesses trying to remain competitive with price conscious consumers.<sup>58</sup> This chapter outlines the consequences associated with food fraud - for businesses, consumers, and the food industry - and policy recommendations to tackle this complex issue.





## Understanding Food Fraud in its Many Forms

Food fraud occurs when food products are intentionally misrepresented for economic gain. The deception usually takes three forms (Table 4).<sup>59</sup>

**Table 4: THE CATEGORIES OF FOOD FRAUD**

Misrepresentation	Adulteration	Counterfeiting
Refers to false advertising (i.e., marketing products as locally produced, organic, gluten-free, or kosher when they are not).	Describes a scenario in which an ingredient is replaced with something less expensive (i.e., adding papaya seeds to peppercorns or apple juice to pomegranate juice).	Refers to food that is repurposed across the supply chain (i.e., using horse meat in meatballs instead of beef).

While difficult to pinpoint the extent of food fraud in Canada, food fraud is evident in both domestic and imported products and is estimated to cost the global food industry nearly \$70 billion.<sup>60</sup>

The most compromised items are olive oil, honey, dry spices, fruit juices, fish, ground meat, and organic food products. Given the complexity of the food supply chain and the diversity of available products, food can be tampered in countless ways. For instance, ground coffee can be adulterated with twigs, corn husks, and barley, while saffron can contain corn silk, dyed onions, and marigold flowers.<sup>61</sup> Alternatively, the country of origin or best before day may be misrepresented or the quantity in an item may be reduced without a decrease in the price.<sup>62</sup>

### THE CHALLENGES ASSOCIATED WITH CONTAINING FOOD FRAUD: THE CASE OF FRAUDULENT CHILEAN RASPBERRIES

First reported by Reuters, the case of the fraudulent Chilean raspberries demonstrates how a complex global food supply chain makes it difficult for governments tackle food fraud. The story begins in China, where low-cost frozen berries were shipped from a Chinese supplier (Harbin Gaotai Food Co. Ltd.) to a packing plant in central Chile. From there, the berries were re-packaged and re-branded as Chilean-grown and organic raspberries by Frutti di Bosco – a fruit trading company in Santiago. Nefarious actors subsequently mislabelled the raspberries as Chilean to enter Canada tariff-free. Between 2014 and 2016, at least \$12 million worth of mislabelled raspberries were shipped to several Canadian cities. Beyond the economic fraud, the CFIA connected these raspberries to a 2017 norovirus<sup>xxv</sup> outbreak in which over 700 Quebeckers became ill. Although the raspberries from this supplier were eventually recalled, these nefarious actors managed to evade law enforcement in multiple jurisdictions for years.<sup>63</sup>

<sup>xxv</sup> Norovirus is a contagious stomach flu that is often due to food that has been tainted with human feces.

## Consequences Associated with Food Fraud

When some actors circumvent regulations and standards, this results in unfair competition for law-abiding companies. In July 2019, the CFIA began cracking down on honey as it is one of the most expensive forms of sugar. It is also easy to adulterate as consumers may not notice the difference in taste.<sup>64</sup> Over one-fifth of imported honey the CFIA examined was diluted with corn syrup, rice, beet, or another sugar, and these adulterated products ended up on Canadian grocery store shelves.<sup>xxvi</sup> Honey that is mixed with another sugar but presented as genuine honey may be sold for 20 cents per pound, while a domestic beekeeper selling authentic honey may charge \$2 per pound to cover their costs. An unfair market makes it difficult for law-abiding producers to compete against fraudulent competitors.<sup>65</sup>

This type of fraud also exposes consumers with underlying health conditions to unwarranted risks, especially if a food allergen or toxic material is hidden or deliberately added.<sup>66</sup> For instance, a consumer with a nut allergy who purchases olive oil that has been diluted with sunflower oil may experience an allergic reaction. The substituted ingredient in this scenario is an undeclared allergen.<sup>67</sup> There have been cases in the United States where consumers thought they were purchasing headless monkfish but actually purchased puffer fish.<sup>68</sup> Puffer fish contains a potent and deadly toxin that can cause severe illness or death and should not be distributed in the food supply chain.

Ultimately, food fraud erodes consumer trust and confidence in the food service and food retail industry. Appendix III examines ground meat adulteration, which raises concerns for halal and kosher consumers. If Canadian cases of food fraud rise during COVID-19, this may prove to be damaging at a time when restaurants, retailers, and processors are struggling due to COVID-19. Maintaining consumer confidence will be key to Ontario's economic recovery, especially for sectors like the food industry that have been significantly impacted by the pandemic.

## Seafood Traceability and Labelling in Canada

Between 2017 and 2019, Oceana Canada used DNA testing to assess 472 seafood samples from grocery stores and restaurants in six Canadian cities. They found 47 percent of the samples were mislabelled – of which 34 percent were an entirely different species than what was listed on the label. Oceana notes that this situation owes to Canada's weak supply chain transparency and traceability standards, which increases the chances of seafood fraud and mislabelling.<sup>69</sup>

When compared with other jurisdictions, Canada's approach to seafood labelling is best described as minimalist.<sup>70</sup> Seafood produced in or imported into Canada is required by the CFIA and Health Canada to be labelled with a common name and 'country of origin.' However, the CFIA-approved list of common names are actually generic names. For example, over 200 species can use the common name "snapper," while 125 species can use the common name "rockfish." Furthermore, the country of original label does not refer to where the fish was caught or farmed; instead, it refers to the country in which the

xxvi As a result of the CFIA's targeted surveillance and sampling, about 13,000 kilograms of adulterated honey valued at almost \$77,000 was prevented from entering the Canadian market.



last major transformation or processing occurred. Oceana maintains that this practice reduces the transparency of seafood products. Moreover, seafood mislabelling can be a way for illegal, unreported, and unregulated (IUU) seafood and seafood products to obtain a new identity and be sold in the legal market.<sup>71</sup> Canadians spend up to \$160 million a year on seafood caught through IUU fishing.<sup>72</sup> Detailed labelling could therefore help redirect lost revenues from the illegal to the legal market.

Canada's minimalist approach also lags the requirements the European Union and the United States have put in place to deter IUU fishing.<sup>xxvii</sup> Incorporating additional information on seafood labels in Canada (i.e., scientific names, geographic origin, production method, and farming method) would align with the steps Canada's major trading partners have taken to curb mislabelled seafood and seafood fraud.<sup>xxviii</sup> While importers are required to provide the CFIA with the common name, production method, country of harvest, and species at risk group, this detailed information is not shared throughout the supply chain. As a result, Canadian consumers and businesses do not have sufficient information about whether the seafood products they are purchasing are honestly labelled, safe, and legally caught.<sup>73</sup>

Comprehensive seafood labelling in Canada would have many benefits for consumers, fisheries, and governments alike, including:

- Providing consumers with additional information to fully understand what they are purchasing;
- Allowing consumers to buy and support local fisheries by including the geographic origin;
- Improving sustainability by making it easier for consumers to identify and avoid species that are overfished, endangered, or harvested using destructive methods and instead source seafood from environmentally responsible fisheries;
- Deterring IUU fishing by providing greater transparency;<sup>74</sup> and
- Recouping \$93.8 million in lost tax revenue each year through the trade of illicit seafood products for the federal government.<sup>75</sup>

xxvii Illegal fishing is conducted without permission from the relevant national authority or regional fisheries management organization, or in contravention of their laws, regulations, or measures. Unreported fishing is defined as fishing that has not been reported or has been misreported to the relevant authority, and contravenes their laws, regulations, or measures. Unregulated fishing refers to fishing that occurs in areas or for populations with no conservation or management structures in place, or by flying the flag of a country that does not align with the owner of the vessel.

xxviii The European Union's comprehensive regulations require seafood and seafood products to include the common name, scientific name, production method, harvest method, geographic origin, and country of processing. US regulations require the common name, country of final processing, and production method. Seafood fraud has been declining in Europe thanks to their modernized labelling requirements and enforcement activities.



While the federal government acknowledged that IUU fishing and seafood fraud were serious problems and committed to developing boat-to-plate traceability in December 2019, no timeline was set to develop this system.<sup>76</sup> As Canadian fishers work to recover from the effects of COVID-19, more robust traceability standards would increase consumer trust at home and ensure continued market access for Canadian seafood and seafood products internationally.<sup>77</sup>

## Curbing Food Fraud

Given the complexity inherent in our global food supply chain, combatting food fraud will require a multi-stakeholder approach.<sup>78</sup> Appendix IV outlines how other stakeholders are helping curb food fraud. In 2016, OMAFRA launched the Food Integrity Initiative (FII) in response to industry concerns about food fraud and the potential impact on food safety. With a focus on building awareness of food fraud throughout the agri-food value chain, the initiative brought together government, industry, researchers, and academics with an interest and expertise in food fraud. In December 2019, OMAFRA committed to re-engaging this group in response to the Auditor General's 2019 Annual Report. In January 2021, the ministry met with the stakeholders involved in the FII to gather perspectives and develop an action plan. Given the complexity surrounding food fraud, OMAFRA should narrow down its focus to develop an actionable plan. Tackling food fraud is critical to identifying fraudulent actors, protecting Ontario's and Canada's brand when it comes to food products at home and abroad, and maintaining consumer confidence and market access – all of which will be critical to economic recovery.<sup>79</sup>

### RECOMMENDATIONS:

- The Government of Canada should modernize its seafood labelling requirements to align with the steps taken by Canada's trading partners, promote transparency, reduce seafood fraud, and increase consumer confidence.
- The Government of Ontario's Food Integrity Initiative should identify key areas in need of particular attention (i.e., certain supply chains and/or food products) and develop an action plan accordingly.



# **RISING FOOD INSECURITY AND COVID-19**

Although not a new issue in Canada, food security has resurfaced as an area of concern for policymakers and advocates. Chapter 6 explores food insecurity in the context of COVID-19 and its implications for northern and Indigenous communities as well as public health. The chapter concludes by outlining short- and long-term recommendations to improve food security.





## Food Insecurity and COVID-19

As a significant number of Canadians lost their jobs or experienced reduced hours during the pandemic, concerns about food security have increased. In Canada, food insecurity is inextricably linked to income and poverty.<sup>80</sup> As a household’s income decreases, the probability of food insecurity rises. An individual is considered food insecure when they are unable to consistently access sufficient food due to financial limitations – a situation that can range from concerns about one’s ability to afford food to skipping meals to going days without eating (Table 5).<sup>81</sup>

Food insecurity rose from almost 11 percent in 2017/2018 to almost 15 percent<sup>82</sup> in May 2020.<sup>xxix</sup> According to Statistics Canada, this is likely a conservative estimate as a survey over a 30-day timeframe can produce a lower rate of food insecurity than a 12-month survey. Moreover, demographics susceptible to food insecurity may not have been captured in the above Statistics Canada survey.

**Table 5: THE SPECTRUM OF FOOD INSECURITY**

Marginal Food Insecurity	Moderate Food Insecurity	Severe Food Insecurity
<p>Individuals or households who worry about running out of food and/or have a limited selection of food because of insufficient financial means.</p> 	<p>Individuals or households who compromise the quality and/or quantity of food they consume because of insufficient financial means.</p> 	<p>Individuals or households who miss meals, reduce their food intake, and/or go days without food.</p> 

Given the uncertainties surrounding when the hardest hit sectors will recover<sup>xxx</sup> and Canada’s unemployment rate (9.4 per cent in January 2021),<sup>83</sup> income insecurity resulting from the pandemic raises long-term concerns. Children, single parents, newcomers, racialized people, Indigenous people, and northern communities disproportionately experience food insecurity.<sup>84</sup>

xxix Based on a survey of 4,600 Canadians between May 4 and 10, 2020 across all ten provinces, Statistics Canada found that almost 15 percent of respondents were living in a household experiencing food insecurity in the last 30-days. In Ontario, 14.5 percent indicated that they lived in a household where there was food insecurity in the past 30 days. This is based on a scale of six food experiences - ranging from food not lasting before there was money to buy more to going hungry because there was not enough money for food.

xxx The Royal Bank of Canada’s June 2020 report, Small Business, Big Pivot: A devastating downturn, and how Canadian enterprises can transition, identifies the following five hardest hit industries in Canada: accommodation and food services, arts and entertainment, non-essential retail, mining and oil and gas services, and commercial real estate leasing.

## GROWING DEMAND FOR FOOD BANKS DURING COVID-19

The business closures that emerged due to COVID-19 led to an increasing number of Canadians accessing food banks for the first time.<sup>85</sup> In Toronto alone, food bank usage tripled among new users.<sup>86</sup> In 2019, Daily Bread member food banks served around 15,000 individuals each week – a number that increased to almost 20,000 with COVID-19. Their Hunger Lives Here report found that:

- 76 percent of new food bank clients did so because of a job loss or reduction in working hours;
- For returning clients, 54 percent accessed the food bank at least once a week before COVID-19 – a number that jumped to 62 percent due to COVID-19;
- The frequency of going a full day without eating almost every month increased – from 56 percent prior to COVID-19 to 67 percent; and
- Before COVID-19, almost 25 percent children went hungry according to their caregivers – a number that increased to 33 percent.<sup>87</sup>

Food banks and other supportive non-profits in Toronto have been struggling to sustain their operations while keeping up with the growing demand and rising rates of food insecurity.<sup>88</sup> There are concerns that history may repeat itself since food bank usage that emerged during the 2008 recession never declined.<sup>89</sup> While the federal government invested \$100 million in October 2020 to support food banks across Canada, food banks should be considered an emergency response to assist individuals living in poverty or who have lost their jobs due to COVID-19. Since food banks do not address the underlying, systemic reasons that people are food insecure, such as poverty, long-term solutions are needed.<sup>90</sup>

## The Nexus Between Food Insecurity and Income Insecurity

Recognizing that food banks are not a viable long-term solution to food insecurity, the pandemic coupled with Canada's Emergency Response Benefit (CERB)<sup>xxxii</sup> re-ignited discussions on universal basic income (UBI). In 2017, around 4,000 residents in Hamilton, Thunder Bay, and Lindsay, Ontario were chosen by the Province to participate in a three-year basic income pilot project.<sup>xxxiii</sup> When the pilot was cancelled in June 2018, stakeholders were concerned that policymakers would lack the data needed to make evidence-based decisions about UBI, its feasibility, and how it can improve recipients' socio-economic outcomes.<sup>91</sup> Recognizing this, the Hamilton Community Foundation, McMaster University, and the Social Sciences and Humanities Research Council subsequently funded a study conducted by McMaster University. Many recipients reported improvements in their health, labour market participation, food security,<sup>xxxiii</sup> housing, and financial status through their participation in the basic income pilot project.

xxxi The CERB provided Canadians who lost their job during COVID-19 with \$2,000 per month for up to four months. The CERB came to an end on September 27, 2020.

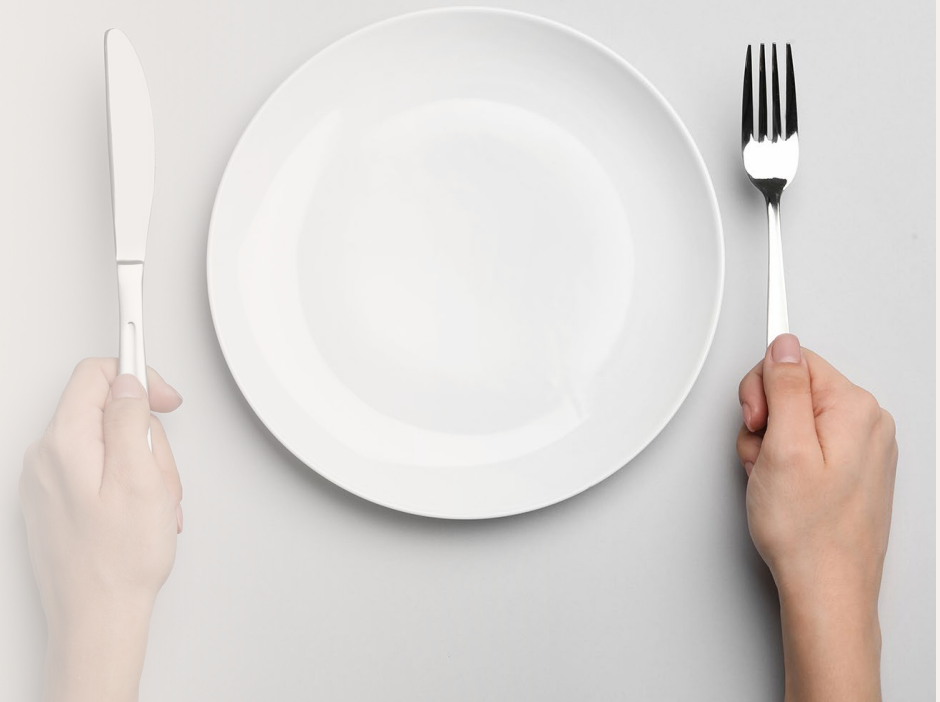
xxxii As part of the basic income pilot project, individuals with incomes under \$34,000 would receive up to \$17,000, while couples with a household income under \$48,000 would receive \$24,000 annually. There was also a control group that did not receive payments. Participants were to be monitored over the three-year period to determine how the extra income changed their lives.

xxxiii This study entailed an online survey and interviews to assess how the basic income pilot project impacted recipients' lives. With respect to food security, almost 70 percent of respondents said they were skipping meals less often during their participation in the basic income pilot project. Almost 70 percent reported a decline in food bank usage, and 85 percent reported more frequent consumption of fruits and vegetables and healthier diets. The report is available here: <https://labourstudies.mcmaster.ca/news/access-southern-ontario2019s-basic-income-experience-report>.

Although there are costs associated with income supports, these costs should be weighed against the savings government can incur by reducing poverty, such as savings for the health care system, justice system, and spending on social services.<sup>92</sup> Re-instating the pilot project that was previously cancelled in Ontario could provide the province with the data needed to fully understand the costs and benefits of this program. It would also provide participants with the financial means needed to purchase food and, in so doing, help support retailers, grocers, local producers, and farmers.

### **THE RISING COST OF FOOD AND ITS IMPACT ON FOOD SECURITY**

In December 2020, researchers at Dalhousie University, the University of Guelph, the University of Saskatchewan, and the University of British Columbia released the 11th annual Canada's Food Price Report. The report predicts an overall increase in food prices by three to five percent in 2021 – the highest rate that the report has ever forecasted. The reasons for this increase are numerous – ranging from the COVID-19 border closures to shifting consumer demand to modifications in production, manufacturing, distribution, and retailing to enhance safety. Items expected to increase the most are: meat, due to volatility of the meat industry; bakery items, due to rising wheat prices; and vegetables, due to the California wildfires. Consequently, the report predicts that the grocery bill for the average Canadian family will increase by \$695 in 2021. The authors predict food insecurity will continue to rise in 2021,<sup>93</sup> which is not surprising given that certain sectors may take years to fully recover from COVID-19.





## Food Security in Ontario's Northern and Indigenous Communities

When it comes to curbing food insecurity, policymakers should take regionality into consideration to develop effective policies and programs. Research conducted by the Northern Policy Institute in 2016 found that remote communities in Northern Ontario, particularly Indigenous communities, face higher costs when it comes to accessing healthy and nutritious foods, often leading to food insecurity. This owes to the high cost associated with transporting food over great distances and the lack of all-season roads in fly-in communities, which results in a reliance on costly air shipments. Consequently, these communities may consume more processed foods, which impact health outcomes. Food insecurity is linked to higher rates of diabetes, cardiovascular disease, and obesity – a situation particularly concerning given the difficulties associated with accessing health specialists in remote communities.<sup>94</sup> Given these unique challenges, Statistics Canada should include a regional lens, and assess the link between food costs and food insecurity in northern and Indigenous communities.<sup>95</sup>

While the above is a short-term recommendation, the provincial and federal governments should also invest in substantive solutions to address food insecurity,<sup>96</sup> including infrastructure investments. Currently, many communities in Ontario's Far North are only accessible by airplane, making food expensive in comparison to goods transported by highway. Alternatively, some communities only have access to ice or winter roads. Winter roads are seasonal and increasingly unreliable as the weather becomes more unpredictable due to climate change. Construction of all-season roads could lower the cost of transporting goods to the north, make healthy food more reasonably priced in these communities, and thereby reduce food insecurity. Increasing road access by investing in road development could also help connect remote communities, spur economic activity, and support job creation.<sup>97</sup> Appendix V outlines how the newly formed Canadian Food Policy Advisory Council could play a critical role in tackling food insecurity by consulting communities, including northern and Indigenous communities, that disproportionately experience food insecurity.

## Public Health Considerations

Food insecurity raises long-term, public health challenges. The Community Food Centres Canada found<sup>xxxiv</sup> food insecurity is impacting Canadians' physical and mental health during the COVID-19 crisis.<sup>98</sup> Without all the prerequisites<sup>xxxv</sup> needed to consume a healthy diet, individuals experiencing food insecurity tend to consume foods that are easier to store but less nutritious.<sup>99</sup> Individuals who are food insecure also consume fewer servings of fruits, vegetables, and dairy products, and vitamin deficiencies can result in diet-related illnesses.<sup>100</sup>

xxxiv A survey conducted by Community Food Centres Canada during COVID-19, with 561 respondents across Canada.

xxxv In the Metcalf Foundation's October 2020 report, the authors identify eight prerequisites for healthy eating: the ability to find food, transport food, store food, freeze food, chill food, cook food, dispose of food, and understand how to eat healthy.

The effects of food insecurity among children are well-documented. Food insecure children and adolescents are more likely to experience nutrient inadequacies and poorer diets. This can lead to hyperactivity, inattention, asthma, depression, and suicidal thoughts in adolescence and early adulthood.<sup>101</sup> Over time, food insecure adults are more susceptible to chronic conditions (i.e., diabetes, heart disease, hypertension, and arthritis) and poor mental health.<sup>102</sup> Those who are food insecure may go without medications due to financial constraints needed to manage chronic conditions, which can worsen underlying health issues.<sup>103</sup> Prolonged food insecurity also impacts mortality as food insecure adults die nine years earlier<sup>xxxvi</sup> than their food secure counterparts.<sup>104</sup> Research has also revealed health care costs for severely food insecure individuals were more than double that spent on food secure individuals in Ontario.<sup>105</sup>

To support equitable economic recovery and a healthy society, any post-pandemic recovery strategy should address food insecurity and its root causes.<sup>106</sup> Policymakers should continue to monitor food insecurity and the long-term impacts it will have on health and mental health,<sup>xxxvii</sup> the health care system, and health care spending to develop appropriate mitigation strategies and policies. The federal government should also establish targets to decrease food insecurity, track progress nationally, and report on its progress annually.<sup>107</sup>

## RECOMMENDATIONS:

- Statistics Canada should release yearly and detailed reports on food insecurity in Canada<sup>108</sup> that includes analysis on the:
  - Rates of food insecurity among children, and in rural, remote, northern, and Indigenous communities;
  - Direct and indirect costs of food in northern and Indigenous communities and the impact this has on food security; and
  - Long-term impacts such as on Canadians' health, mental health, and costs to the health care system.
- The Government of Canada and Government of Ontario should invest in road development and all-season roads in remote, northern Ontario to connect communities, spur economic activity, and address the high cost of food in these regions.
- The Government of Ontario should consider reinstating the basic income pilot project, examine the results upon completion of the pilot, and assess the potential costs and benefits for recipients.
- The Government of Canada should establish targets to reduce food insecurity, measure progress nationally, and provide annual status reports.<sup>109</sup>

xxxvi Postdoctoral fellow Fei Men and Professor Valerie Tarasuk at the University of Toronto's Department of Nutritional Sciences analyzed data from the Canadian Community Health Survey between 2005 and 2017. The researchers compared longevity in people who were food secure to those who were marginally, moderately, or severely food insecure. They found that individuals who identified as food insecure were between 11 and 37 percent more likely to die prematurely due to poor nutrition. Moreover, severe food insecurity was linked with mortality due to cardiac and respiratory diseases and diabetes. They also found that food insecurity increases the risk of death from infectious diseases (e.g., HIV or hepatitis C), unintentional injuries, and self-harm.

xxxvii Statistics Canada's May 2020 survey found that, in comparison to food secure households, respondents experiencing moderate food insecurity were almost three times as likely to report fair or poor mental health and moderate or severe anxiety symptoms. Households who were severely food insecure were four times more likely to report fair or poor mental health, and more than seven times more likely to report moderate or severe anxiety symptoms.

# **DURHAM COLLEGE'S W. GALEN WESTON CENTRE FOR FOOD: BRINGING THE 'FIELD TO FORK' CONCEPT TO LIFE FOR THE NEXT GENERATION**

Launched in 2013, Durham College's W. Galen Weston Centre for Food integrates a 'field-to-fork' philosophy and sustainable business practices into every aspect of its curriculum and state-of-the-art facilities. The concept centres on growing, harvesting, and selling local food for local consumers.

The Weston Centre is an impressive 35,000-square-foot living laboratory that is home to culinary, food and farming, horticulture, hospitality, event planning, and tourism programs. The Centre includes:

- An acre of land that grows over 7,000 pounds of vegetables per year;
- Weekly farmer's market and community-supported agricultural programs;
- Several greenhouses and a hydroponic vertical farm
- Arboretum of native and ornamental trees and shrubs;
- Quarter-acre apple orchards, as well as fruit trees, berry bushes, and edible plants;
- Ornamental and edible perennial gardens;
- Bistro '67 – a three-star certified green restaurant;
- Retail store known as Pantry that sells student-created goods;
- Post-harvest facility used to wash, pack, and store all the products from the farm; and
- Plans to develop a micro hop yard, wine and table grape production facility, and a micro tree and shrub nursery.

Students play a leading role when it comes to the Centre's operations. Students enrolled in Durham College's food and farming and horticulture programs grow the food used at Bistro '67 and sold at Pantry. Culinary students prepare the menu, cook, and prepare the ingredients

that the agricultural students harvest, while hospitality students serve customers in the restaurant and at events and meetings held in the Centre. The Centre therefore enhances students' learning experience by providing hands-on training under the guidance of faculty and staff. It is helping build the next generation of skilled workers for the agricultural, agri-food, and hospitality industries.

The urban farm is also demonstration of what a small-scale, high-tech, high-yield urban farm can look like. The farm offers a viable solution to various social, economic, and environmental issues, including food insecurity issues in Durham Region. The success of the farm and its operation has attracted a community of local consumers, while garnering significant interest from industry and the farming community alike.

Now in its eighth year and as a recognized leader when it comes to weaving academic inquiry and delivery in all its operations, Durham College is actively planning how the knowledge and data it has collected can be replicated. Replicating the model in different communities, environments, and climates would provide Durham College with the opportunity to showcase its leadership by addressing various issues, including environmental regeneration and food security.





## CONCLUSION

Although the food supply chain experienced the greatest disruption in a generation with the onset of COVID-19, the chain itself did not break.<sup>110</sup> Instead, the food supply chain continued to provide Canadians with uninterrupted access to food. The pandemic not only raised new challenges, such as the growing demand for local food, need to shift to online sales, and rising food insecurity, but it also underscored existing vulnerabilities, such as the many shortcomings associated with AgriStability and the need to fill the agricultural talent pipeline to address future labour shortages.

*Growing a More Resilient Food Supply Chain in Ontario* offers pragmatic and proactive steps the Governments of Canada and Ontario can take to address six critical areas and foster greater resilience in Ontario's food supply chain. These recommendations, once implemented, could ensure the province is better positioned to handle subsequent crises. They could also ensure Ontario's agri-food sector continues to be a competitive advantage as the province moves to economic recovery.



# APPENDIX

## Appendix I: Impacts of COVID-19 on Ontario's Food Supply Chain and Consumers

The following provides a summary of the impacts COVID-19 has had on the food supply chain, farmers, retailers, restaurants, and consumers.

- Shifts in consumption levels and consumer spending.
- Panic-buying and stockpiling shelf-stable foods and other products.
- Spikes in the demand for certain food products (i.e., flour and yeast) and temporary shortages at grocery stores.
- Decline in demand for certain food products (i.e., potatoes) due to restaurant closures.
- Rising food insecurity due to job losses and business closures, and concerns about the long-term consequences.
- More gardening and cooking at home (i.e., canning and baking).
- Growth in online sales for grocery stores, restaurants, and farms.
- Significant job losses in the food service industry with restaurant closures.
- Restrictions on indoor dining, shift to outdoor dining and curbside pick-up, and introduction of new offerings (i.e., meal kits).
- Introduction of new safety measures (i.e., enhanced sanitation, personal protective equipment, temperature screening, plexiglass, etc.), which increased operating costs.
- COVID-19 outbreaks, temporary closures, and slowdown in production at some meat processing facilities.
- COVID-19 outbreaks, labour shortages, and concerns that travel restrictions would impact the hiring of seasonal agricultural workers on some farms.

## Appendix II: The Interdependence Between Reliable, High-Speed Internet and Precision Agriculture

In April 2019, the United States Department of Agriculture (USDA) released a report entitled *A Case for Rural Broadband*, which examined the interdependence between precision agriculture and broadband infrastructure.<sup>xxxviii</sup>

Reliable, high-speed, and affordable internet is critical to powering precision agriculture technologies. Precision agriculture is a method of farming that uses technological innovations (i.e., GPS, drones, sensors, etc.) to help farmers and ranchers increase crop and animal yields, reduce input costs, and improve labour and operational efficiency. Technology and real-time data help farmers make better decisions as well as produce better returns.

Yet, the lack of reliable, high-speed internet in rural areas means that farmers cannot take full advantage of these technologies. This issue is compounded by the fact that, as technology continues to advance and the volumes of data produced to manage agriculture production grows, farmers in rural areas will need higher speeds and more reliable internet.

In addition to improving farmers' bottom lines, greater connectivity and precision agriculture would have several benefits. The USDA estimated that improving broadband infrastructure and increasing the use of precision agriculture could generate an additional \$47 to \$65 billion for the US economy. This economic return would not be overnight as it would take many years to build the requisite infrastructure, deploy the necessary equipment, and train farmers on how to use precision agriculture technologies.

Unlocking this economic potential requires policymakers to address other barriers preventing farmers from adopting precision agriculture or realizing the full value of these technologies, including costs, technical skills to manage and interpret large datasets, and the lack of interoperable software that provide farmers with a full picture of their operations.<sup>111</sup>

In *Farmer 4.0*, RBC comes to a similar conclusion, predicting Canada could gain \$11 billion in annual GDP by 2030 if steps are taken to address the looming labour shortages facing the agricultural sector, attract young people with diverse skillsets to farming, and accelerate investments in and the adoption of on-farm technologies.<sup>112</sup> These two reports underscore how broadband, technology, and a skilled workforce go hand-in-hand.

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<sup>xxxviii</sup> Recognizing the importance of broadband for precision agriculture, the United States passed the *Precision Agriculture Connectivity Act* of 2018. This piece of legislation required the Federal Communications Commission (FCC) to establish the task force to review the connectivity and technology needs of precision agriculture, with the goal of closing any gaps in the availability of broadband on agricultural land. The task force submits an annual report to the FCC that examines challenges and its progress, while the FCC renews the task force every two years (until it terminates on January 1, 2025).



### Appendix III: Ground Meat Authenticity and Adulteration

For halal and kosher consumers, meat adulteration is particularly concerning. In 2016, the CFIA commissioned researchers at the University of Guelph to conduct a study on the authenticity of sausage products. Since these products are highly processed, it increases the opportunity for mislabelling. Between January 17 and February 25, 2016, the researchers examined 100 sausage products that were labeled as containing a single ingredient (beef, pork, turkey, or chicken) and sold in grocery stores in Montreal, Toronto, and Calgary.<sup>xxxix</sup> With DNA barcoding technology, the researchers found that:

- Out of 100 sausage samples, 95 contained the predominant species matching the label;
- All the sausage samples that were labeled as beef, chicken, or pork (85 in total) contained the predominant species on the label;
- For turkey sausages (15 in total), 10 samples contained turkey as the predominant meat species, while five samples contained chicken as the predominant species;
- For beef sausages (27 in total), seven samples also contained pork;
- For chicken sausages (20 in total), four contained turkey;
- For the pork sausages (38 in total), two contained beef; and
- Overall, the researchers found that the rate of mislabelling was 20 percent.<sup>113</sup>

While most products contained mostly the species that was declared on the label, even small amounts of undeclared species are concerning. For consumers who do not eat pork, the presence of undeclared pork in sausages that are labelled as beef is problematic.<sup>114</sup> Alternatively, for consumers who do not eat beef, the presence of beef in sausages labelled as chicken is also problematic. To this end, the researchers found beef in one chicken product and in two pork products.

However, these findings are concerning because it could have health implications. In the event a particular meat species has to be recalled, it becomes extremely difficult to remove from grocery stores when meat products are labelled as containing only one meat species but have actually been mixed.<sup>115</sup>

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xxxix     Ninety samples originated from Canada, five samples were imported from the US, and five samples were from unknown origin.

## Appendix IV: Safeguarding Consumers from Food Fraud

Dalhousie's 2017 study found that consumers are generally aware of food fraud. When asked if they were concerned that food products are being misrepresented, 63 percent of respondents agreed or strongly agreed, and 43 percent said they have purchased a food item that was mislabelled.<sup>116</sup> While this data is reassuring, consumers should:

- Remain vigilant by asking questions (i.e., about a retailer's suppliers);
- Seek reliable food providers;
- Check labels to see if information may be misleading;
- Be wary of low prices; and
- Report incidents to the CFIA<sup>xl</sup> – the agency responsible for enforcing laws<sup>xli</sup> that are in place to protect the standards and quality of food products consumed by Canadians.<sup>117</sup>

Researchers are also developing portable, DNA barcoding tools to empower consumers. While the current technology is cost-prohibitive, it will one day allow consumers to test the integrity of a product by scanning the item and matching the DNA against a reference database in real-time to authenticate food labels and content.<sup>118</sup>

## Appendix V: The Recent Launch of the Canadian Food Policy Advisory Council (CFPAC)

Recognizing the importance of taking a system-wide approach and how the food system impacts every Canadian, in 2017 the federal government held public consultations to develop the first-ever food policy in Canada.<sup>119</sup> In the following year, Agriculture and Agri-Food Canada released a report outlining the issues Canadians identified during its consultations. Subsequently, through Budget 2019, the federal government announced the creation of the Canadian Food Policy Advisory Council (CFPAC). This independent, multi-stakeholder Council was to advise on current and emerging issues, share best practices, assess gaps in policies and data, and support the implementation and monitoring of Canada's food policy.<sup>120</sup>

On February 21, 2021, the Minister of Agriculture and Agri-Food announced the 23 members of the CFPAC. The Council includes representatives from across Canada with diverse backgrounds, including academics, food policy experts, industry, health professionals, farmers, food banks, and non-profit organizations. The CFPAC has four short-term priorities: helping Canadians access healthy food; making Canadian food the top choice at home and abroad; supporting food security in northern and Indigenous communities; and reducing food waste.

Given the inherent complexity of the food supply chain and the challenges that emerged with COVID-19, collaboration will be critical to building a resilient food system in Canada. Since programs are more relevant and effective when designed in consultation with leaders of marginalized communities,<sup>121</sup> the federal government should consider providing the CFPAC with funding and ensure it is sufficiently resourced to directly engage individuals and communities that disproportionately experience food insecurity in Canada.<sup>122</sup>

xl In June 2019, the federal government invested \$24.4 million to help the CFIA control non-compliant products. In April 2020, the CFIA received \$20 million to improve its food safety activities, including hiring additional staff to do inspection work, reassigning current staff to pressing activities, and expanding the use of electronic tools.

xli Specifically, the *Food and Drugs Act*, the *Consumer Packaging and Labelling Act*, and the *Canada Agricultural Products Act*.

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