

COVID-19, a changing Canadian food-security landscape, and food movements: Findings from a literature scan

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Abstract

This research brief presents results from a scan of peer-reviewed and grey literature published from March 2020 to the end of August 2021 looking at the impacts of COVID-19 on food security in Canada. The purpose of this literature scan is to look at how the national food-security landscape

has shifted due to the pandemic and to analyze what these changes mean for civil society-led food movements working on the ground to enhance food systems sustainability and equity. This brief presents key findings from the literature scan focusing on food-security policy, programming, and funding; food security for individuals, households, and vulnerable populations; and food systems. We then draw on our collective experiences as food scholars and activists to discuss the implications of these findings for food movement organizing. Here, we focus on networks, policy advocacy, and local food systems as key considerations for food movements in a changing food-security landscape.

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Keywords

Sustainable Food Systems, COVID-19, Pandemic, Canada, Food Security, Food Movements, Social Movements

Introduction

COVID-19 emerged as a pandemic in March 2020, bringing sudden and unprecedented socio-economic changes around the globe. Canada was no exception: fear of contagion and the resultant public health measures led to business closures, unemployment, food supply-chain disruptions, and pressure on the charitable food sector due to increased demands (Beland et al., 2020; Detsky & Bogoch, 2020; Larue, 2021). The rapid confluence of these impacts requires examination to assess short- and longer-term outcomes and inform policy-making processes to maximize the food security of individuals, communities, and food systems.

This research brief presents results from a scan of peer-reviewed and grey literature published from March 2020 to the end of August 2021 looking at the impacts of COVID-19 on the food-security landscape in Canada. This literature scan emerges from a community-university partnership project involving Queen's University, the University of Manitoba, and the nonprofit organization Food Matters Manitoba. The goal of this project is to examine how the pandemic has affected vulnerabilities in Manitoba's food systems and how food movements in the province can mobilize for effective and equitable food-security policy responses both now and beyond COVID-19. Our research team comprises scholars and activists who are deeply involved in food-movement organizing and committed to community-based food systems research and policy. As a first step in our collaborative project, we identified a need to look toward the broader literature from across Canada to further understand key changes in the national food-security landscape during the pandemic that could inform the community-based research we are planning in Manitoba. The main questions guiding this literature scan are how has the food-security landscape changed with COVID-19 in Canada? And how can an understanding of these shifts inform a food movement response?

In this brief, we share results from this literature scan and draw on our experiences as food sys-

tem scholars and activists to present our shared analysis of what a changing food-security landscape means for food movements working on the ground to enhance food systems sustainability and equity. By 'food movements' we are referring to the social movements that have arisen around food systems in recent decades. Food movements are a part of civil society,¹ composed of the networks of individuals, groups, and organizations mobilizing in various ways to challenge and transform the dominant industrial and market-driven food system (Andrée et al., 2019). Food movements are concerned not only with what people eat—although they do emphasize building more local or "alternative" food systems—but also with how decisions around food production, access, and distribution are made, emphasizing just and democratic processes. We refer to food movements in the plural, recognizing the diversity of initiatives and organizing strategies that these movements encompass (Andrée et al., 2019). For example, efforts toward community food security, fair trade, food sovereignty, and slow food can all be captured under the umbrella of food movements. Since the start of the pandemic, food movements have become the leading voices calling for policy responses to address the root causes of vulnerability and inequity in food systems, including poverty, systemic racism, settler-colonialism, neoliberalism, and the ecological degradation inherent to industrial methods of food production (Food Secure Canada, 2020; IPES-Food, 2020).

In what follows, we provide detail on the methods for the literature scan and present the results focusing on the categories of food-security policy, funding, and programming; food security for individuals, households, and vulnerable populations; and food systems. We synthesize key trends and shifts in each of these areas, identify opportunities for further research, and discuss the implications of these findings for food movements by focusing on opportunities for network formation, policy advocacy, and building local food systems in an evolving food-security landscape.

¹ Civil society refers to "the arena of social engagement that exists about the individual and below the state, in and through which individuals form their political identities" (Andrée et al., 2019, p. 7). It is often described as the third sector of society, alongside government and business.

Methods

Peer-reviewed literature for this scan was identified by searching the Academic Search Complete (from EBSCO) and 65 ProQuest databases on arts, economics, and science topics using a combination of these search terms: COVID-19; food security; food system; Canada. Articles in which food security was mentioned but was not a main focus were excluded. In total, 34 peer-reviewed articles were included in the scan covering the period of March 2020 to the end of August 2021. Canadian grey literature (e.g., reports, policy documents) was identified through a Google search using the terms outlined above as well as a targeted review of websites that we identified as a research team. These included federal government websites, nonprofit and charitable organizations in the food sector, and food-security research centers and think tanks. Media articles were consulted to contextualize information and fill in gaps from other sources. We recognize that there is a considerable volume of emerging research on food systems and COVID-19 in Canada that is not yet published, including that shared in webinars and conferences, and which is not captured by this scan.

Results

We present results from the literature scan in three key categories: (1) food-security policy, funding, and programming; (2) food security for individuals,

households, and vulnerable groups; and (3) food systems. Food-security policy, funding, and programming provide an overview of policy and funding responses to the pandemic from the federal government and civil society, as well as changes in emergency food programming. Food security for individuals, households, and vulnerable groups looks at food access during the pandemic, including how this was shaped by employment, income, and food-provisioning strategies. Food systems focuses on broader changes to and supports for agri-food systems and supply chains disrupted by the pandemic.

Food-Security Policy, Funding, and Programming

A number of civil society organizations (including nonprofit organizations and research centers) released policy statements in the early months of the pandemic in response to the challenges posed by COVID-19 (see Table 1). Some common policy priorities across these statements included increasing financial resources for low-income households through a basic income or “dignity dividend”; funding a national school meal program; supporting Indigenous food sovereignty; and furthering Canada’s new national food policy (Government of Canada, 2020). Of note, since these proposals came out in spring 2020, a national food policy advisory council has been established to oversee the development of this policy with a number of civil soci-

Table 1. Policy Proposals from Civil Society Organizations

Organization	Policy statement
Community Food Centres Canada (2020)	<i>Coming out on the other side: A recovery plan for food security</i> (https://cfccanada.ca/en/News-Events/Latest-News/Announcements/Coming-out-the-other-side-a-recovery-plan-for-foo)
Canadian Commission for UNESCO (2020)	<i>Now is the time to build sustainable food system resilience</i> (https://ipolitics.ca/2020/07/15/now-is-the-time-to-build-sustainable-food-system-resilience/)
Centre for Studies on Food Security (2020)	<i>Statement on COVID-19</i> (https://www.ryerson.ca/foodsecurity/about/food-security-covid19/)
Food Secure Canada (2020)	<i>Growing resilience and equity: A food policy action plan in the context of COVID-19</i> (https://foodsecurecanada.org/sites/foodsecurecanada.org/files/fsc_-_growing_resilience_equity_10_june_2020.pdf)
PROOF Food Insecurity Policy Research (Tarasuk, 2020)	<i>Food insecurity in Canada—Latest data from PROOF</i> (https://proof.utoronto.ca/resources/webinar/)

ety members. Food Secure Canada followed up on its initial policy statement one year later, calling for a “zero hunger Canada” post-pandemic (Cheng & Yasmeen, 2021).²

In terms of policy responses from the federal government,³ various initiatives were established, including some directly tied to food security and others providing broader income and financial support (see Table 2). Key food-security initiatives included the Emergency Food Security Fund and the Surplus Food Rescue Program. An additional investment was made to the existing Nutrition North Canada program. Compared to the systemic policy reforms called for among civil society organizations, much of the food-security-specific federal funding was directed toward strengthening emergency charitable food.

A number of broader programs relevant to food security were also implemented. Key among

these was the Canadian Emergency Response Benefit (CERB) introduced in March 2020 to provide income support for Canadians whose employment was disrupted by the pandemic. While not a permanent program, for a time it provided a form of basic income. Studies investigating the relationship between CERB and food security are discussed in the following section. In addition, the Indigenous Community Support Fund was established to address the immediate pandemic health needs of Indigenous communities, including food security. Lastly, a variety of supports were made available to farmers and food processors.

Finally, changes to programming occurred among emergency food providers as they adapted to public health measures (Daily Bread Food Bank, 2020; Food Banks Canada, 2020). A report by Food Banks Canada (2020) documented changes to service models including new home delivery,

Table 2. Policy Responses from the Federal Government

Food-security programs	Purpose
Emergency Food Security Fund (https://agriculture.canada.ca/en/agricultural-programs-and-services/emergency-food-security-fund)	For food banks and other food rescue organizations to meet immediate food needs. Total funding: 200 million dollars.
Surplus Food Rescue Program (https://www.canada.ca/en/agriculture-agri-food/news/2020/08/surplus-food-rescue-program.html)	To redirect surplus food towards community food organizations. Total funding: 50 million dollars.
Nutrition North Canada (https://www.nutritionnorthcanada.gc.ca/eng/1593803686454/1593803714791)	Additional funding (25 million dollars) to enhance food subsidy rates and expand the list of subsidized foods.
Income and financial support programs	Purpose
Canadian Emergency Response Benefit (CERB) (https://www.canada.ca/en/services/benefits/ei/cerb-application.html)	To provide income support to employed and self-employed individuals affected by the pandemic.
Other programs	Purpose
Indigenous Community Support Fund (https://www.sac-isc.gc.ca/eng/1585189335380/1585189357198)	To support Indigenous communities in responding to immediate health needs, including food security. Total funding: Over one billion dollars.
Financial support for farmers and food processors (https://agriculture.canada.ca/en/covid-19-financial-support-farmers-and-food-processors)	Variety of supports including wage top-ups, isolation support for temporary foreign workers, and funding to implement health and safety measures.

² Additional civil society COVID-19 resources and responses from municipal, provincial, and territorial groups in Canada have been compiled by the Food Communities Network and are available at <https://fcn-rcn.ca/key-projects-2/covid-19-responses/>

³ While provincial governments also provided food security supports, we are focusing on federal policy responses here in line with the national scope of this literature scan; research on the Manitoba provincial policy environment is ongoing separately as part of our community-based research.

take-out, drive-through, appointment, and pop-up location options. The extent to which these more flexible options may have benefits in reaching vulnerable populations now and beyond the pandemic is an area for further investigation. Food Banks Canada (2020, p. 19) also found that the pandemic encouraged food banks to “forge more extensive relationships” with cross-sector community partners to deliver these programming changes as well as to serve groups beyond their regular client base, such as school programs and social housing.

Food Security for Individuals, Households, and Vulnerable Groups

Overall, eight sources are included in this category and indicate that the pandemic has contributed to changes in income and employment, diet quality, and mental health with implications for food security. Food security is measured through the Canadian Community Health Survey (CCHS) administered by the federal government. Food insecurity was higher in May 2020 (14.6%) compared to the same time in 2017–2018 (10.5%), driven by unemployment and reduced wages (Statistics Canada, 2020c).⁴ Some groups were more vulnerable to food insecurity than others. For example, food insecurity was at least twice as common among those applying for pandemic income support (such as CERB) in spring 2020 compared to non-applicants (Men & Tarasuk, 2021). Meeting basic needs was also a particular challenge for visible minorities (Hou et al., 2020). Food insecurity was also associated with poorer mental health outcomes (Polsky & Gilmour, 2020). On a more positive note, a study on diet quality among Quebec adults measured a slight increase in healthy eating at the start of the pandemic due to greater consumption of home-cooked meals (LaMarche et al., 2021).

A need for ongoing data collection and monitoring of these trends is consistently noted across these studies and supported by this literature scan, which reveals an overall lack of research and data

on food security during the pandemic to date. Food-security data stratified by race/ethnicity for the prepandemic period of 2017–2018, based on analysis by the food-security research team PROOF (Tarasuk & Mitchell, 2020), indicated higher rates of food insecurity among Black and racialized households.⁵ There is an urgent need for data stratified by race/ethnicity to fully understand the impacts of the pandemic on food access for vulnerable groups. This includes a need for more information about on-reserve Indigenous communities and some northern communities that are not included in the CCHS (Statistics Canada, 2021).

Some research considered Indigenous communities as a population vulnerable to food insecurity during the pandemic, although this research was not focused on measuring food security. Two studies advocated for a social determinants of health approach to situate food security within the broader structural and health inequalities facing Indigenous communities (Richardson & Crawford, 2020; Spence et al., 2020). Levkoe et al. (2021) similarly argued that addressing Indigenous food insecurity during the pandemic must be rooted in a decolonizing framework. Corntassel et al. (2020) looked at the everyday land and food activities Indigenous communities undertook to ensure food security. Levi and Robin (2020) further argued that public health measures (e.g., sheltering in place, social distancing, regular hand washing) cannot be followed by the many Indigenous families who lack access to clean water and live in overcrowded and substandard housing. These conditions, the result of systemic economic and social inequalities, further increase the risk of food insecurity for those already vulnerable. Understanding the extent and impact of COVID on food insecurity in BIPOC groups is a crucial area for further research.

Food Systems

Overall, research in this area reveals changes to supply chains and consumer behaviors and attitudes during the pandemic. A total of 48 sources

⁴ Data recently released by Statistics Canada indicates that food insecurity in fall 2020 was slightly lower than prepandemic levels, likely because pandemic income support programs were in place by this time (Polsky & Garriguet, 2022).

⁵ A similar trend is noted by Statistics Canada for the period September to December 2020 (Polsky & Garriguet, 2022).

are included in this category and broken down into more specific themes as shown in Table 3.

The majority of the research in this section is from two special issues of the *Canadian Journal of Agricultural Economics* published in spring 2020 and spring 2021. The studies in these special issues are mostly focused on sector- and commodity-specific analyses. We pull out here the broader trends from these studies as they pertain to the overall functioning of food systems during the pandemic.

While agri-food systems have experienced various changes and disruptions (described more below), most of the agricultural economics studies found that supply chains were resilient in the first 18 months of the pandemic with respect to maintaining a stable supply of food. This has been attributed in part to the Canada-U.S. border

remaining open for trade and flexibility in regulations (Arrell Food Institute & Canadian Agri-food Policy Institute, 2021). Although the food supply was stable overall, there were increases in food prices with implications for economic access to food (Charlevois et al., 2021). This overall stability in food supply to Canadians is not to discount shortages of some goods for periods of time or disruptions within certain sectors. In particular, poor working conditions and COVID-19 outbreaks in the meat-processing sector in western Canada during the first wave were well documented in national media, including the impacts on a vulnerable workforce composed of many temporary foreign workers (Dryden & Rieger, 2021; The Canadian Press, 2020). While this literature scan covers the period to the end of August 2021, it is worth noting that

Table 3. Literature Sources on Food Systems

Key themes	
Supply chains	<p><i>Agri food-system overviews:</i> Resilience: Arrell Food Institute & Canadian Agri-food Policy Institute, 2021; Hobbs, 2020, 2021 Food prices: Charlevois et al., 2021 Supply and demand: Deaton & Deaton, 2020, 2021 Labour: Larue, 2020, 2021</p> <p><i>Commodities:</i> Export markets: Barichello, 2020; Yeung & Kerr, 2021 Produce: Chenarides et al., 2021; Laplante et al., 2021; Richards & Rickard, 2020 Grains and oilseeds: Brewin, 2020; 2021 Meat: McEwan et al., 2020; 2021; Rude, 2020, 2021 Wheat: Vercammen, 2020 Dairy and poultry: Weersink et al., 2020, 2021</p> <p><i>Sectors:</i> Food retail and service: Agri-Food Analytics Lab, 2020a; Goddard, 2020, 2021 Temporary foreign workers: Falconer, 2020a, 2020b; Migrant Workers Alliance for Change, 2020 Transportation: Gray, 2020, 2021 Processing: Hailu, 2020, 2021 Production: Holland, 2020; Lawley, 2021</p>
	<p><i>Food attitudes:</i> Food waste: Agri-Food Analytics Lab, 2020d Food literacy: Agri-Food Analytics Lab, 2021b Confidence in food industry: Agri-Food Analytics Lab, 2021c</p> <p><i>Food purchasing:</i> Agri-Food Analytics Lab, 2020b, 2020c, 2020e, 2021a; Cranfield, 2020; Statistics Canada, 2020a, 2020b</p> <p><i>Local food turn:</i> Willingness to pay: Agri-Food Analytics Lab, 2020f Home gardening: Mullins et al., 2021 Attitudes: Polasub, Beckie, Knezevic, Nielsen, & Mah, 2020 Virtual spaces: Radcliffe et al., 2021</p>
Consumer behaviours/attitudes	

further disruptions to supply chains due to COVID-19 transport and labor challenges interfacing with severe weather in parts of the country have taken place since this time (for example, see Lorinc, 2022), and these are important trends to follow.

Some of the greatest impacts to supply chains were noted in the foodservice sector, which has been disproportionately impacted by lockdowns (Agri-food Analytics Lab, 2020a; Goddard 2020, 2021). Research indicated that small grocery stores may have greater challenges offering online sales and keeping prices low compared to large chains (Hobbs, 2020; Richards & Rickard, 2020). The situation of temporary foreign workers (TFWs) also received attention. Falconer (2020a, 2020b) documented a decline in arrivals of TFWs in spring 2020, posing challenges for farmers reliant on this workforce. TFWs were especially vulnerable during the pandemic due to crowded living conditions, limited access to healthcare, and growing employment in food processing, a sector hit hard by outbreaks (Falconer, 2020a; Migrant Workers Alliance for Change, 2020).

The remaining research in this category focused on consumer food behavior and attitudes. Data on grocery shopping indicated “stockpiling” behavior during the early months of the pandemic (Agri-Food Analytics Lab, 2020b, 2020c, 2021a; Statistics Canada, 2020a, 2020b). Another key behavior change included more online food sales (Agri-Food Analytics Lab, 2020e; Polasub et al., 2020). The role of time, income, and other socioeconomic factors in shaping food purchasing was also a key theme, with some regional differences observed across the country (Cranfield, 2020; Polasub et al., 2020).

A final key theme within consumer behavior and attitudes was a turn toward local food systems. Overall, increased awareness and heightened local food systems activity were observed. A survey six months into the pandemic found that most respondents were willing to pay more for locally grown fruits and vegetables (Agri-Food Analytics Lab, 2020f). A survey of food attitudes by Polasub et al. (2020) likewise found that consumer uncertainty about supply chains translated into high levels of support for local and regional food systems.

In terms of participation in local food activities, a national home-gardening survey found that approximately 17% of respondents gardened for the first time in 2020 (Mullins et al., 2021). A number of media articles that we consulted reinforced a turn toward local food systems, including a surge in pandemic gardening and increased demand for local food (e.g., CBC News, 2020; Cox, 2021; Tutton, 2020). While an overall turn toward local food systems is fairly well-documented, less research focused on adaptations in the structures of local food systems. An exception is Radcliffe et al. (2021), who looked at how the Yellowknife Farmers Market responded to the pandemic through the development of a virtual local food space.

Insights for Food Movements

Well before the COVID-19 pandemic began, food movements in Canada had been calling for transformative policy changes to address the root causes of food insecurity and inequities. The start of the pandemic saw a resurgence in policy statements from civil society organizations laying out how pre-existing inequities and vulnerabilities were worsened by the pandemic and calling for renewed policy actions in response. This included statements by leading national civil society organizations such as Food Secure Canada, among others, with calls for a basic income, national school meal program, and support for Indigenous food sovereignty. The engagement in policy documented in this scan supports other recent analyses demonstrating that food movements are claiming more prominent spaces in food policy and governance (Andrée et al., 2019; Clark et al., 2021; Hassanein, 2003; Holt-Giménez, 2011; Martorell & Andrée, 2018). The policy statements released by food movements in 2020 exemplify this trend, demonstrating that food movements are increasingly concerned not only with what people eat but how decisions about food systems are made, and especially ensuring that structures are in place that support those most vulnerable (James et al., 2021). Research and data on food insecurity, as reviewed in this scan, indicate that racialized households and those relying on social assistance as a main source of income are more likely to experience food insecurity, while

temporary workers (who are more likely to be racialized) in supply chains also face special vulnerabilities during the pandemic. Ongoing data collection and monitoring of food security and related health indicators are crucial to informing the efforts of food movement organizations on the ground responding to food needs and advocating for policy supports.

Realizing the transformative policy changes that food movements seek will require collaboration and engagement between food movements (civil society organizations, the charitable sector, grassroots groups, local producers) and other sectors. Here, findings from this literature scan offer insight into the potential for network formation. As Clark et al. (2021) discuss, a unique ability of food movements is to “convene” different actors in pursuit of shared food system goals. A notable finding from this scan is that food banks have developed new and strengthened relationships with other community agencies, governments, and local businesses since the start of the pandemic to adjust their programming and enhance efforts to reach vulnerable communities (Food Banks Canada, 2020), as described in the policy, programming, and funding section of this scan. Our experiences in community food systems work in Manitoba supports this finding; for example, we have observed charitable food organizations engaging more with food-security advocacy and research organizations around how to build food-security policy supports. These new collaborations within food movements (e.g., between charitable and advocacy organizations) and across food movements, government, and local business offer promise for forming the networks that may enable collective action for food systems policy change post-pandemic. In our community-based research in Manitoba, this is a key area we plan to examine more closely by bringing together diverse food-security stakeholders through a participatory process to examine what resources and tools may contribute to further building and sustaining these networks in support of policy change and advocacy.

Also related to networks, another trend this literature scan speaks to are the new relationships between the government and charitable food organizations that formed as the federal govern-

ment began directly funding or transferring surplus food to these organizations (primarily food banks), as shown in the review of policy, programming, and funding included in this scan. Historically, this did not happen, as food banks are not deemed a formal part of the social welfare system in Canada. This change has become a point of tension: while charitable organizations need resources, many of these organizations—along with food-security advocates—do not want these organizations ‘legitimized’ for risk of curtailing the government’s responsibilities in upholding the right to food and other social supports such as an adequate income. The ways in which food movements’ relationships with government may be evolving due to the pandemic, and particularly vis-à-vis funding arrangements, is an area that warrants ongoing attention.

In addition to insights for network formation and policy, we can also identify from this scan some key considerations for local food systems that are relevant to food movements concerned with building alternatives to the dominant food system. Overall, this scan observed a turn toward more local food systems. However, more research is needed to understand the opportunities (or limitations) of virtual marketplaces in connecting producers and consumers and for potentially scaling up these networks. There is also a need for more research to assess how different groups, and especially more vulnerable households, may be experiencing a resurgence of local food activity, such as home gardening or access to local and regional food options. This is crucial given the critiques of local food initiatives for catering to white, middle-class consumers (e.g., DeLind, 2011); previous research indicates that low-income households value local food, but income and cost are constraints to access, as well as food environments and trust in the food system (Kramer et al., 2019). Food movements, and especially those in the areas of community food security and food justice, have been vocal in raising concerns that local food alternatives risk perpetuating the race- and class-based inequities that characterize the mainstream food system (Alkon & Agyeman, 2011).

Notably, we did not find research focused specifically on small-scale farmers or fishers. Research

in this area will be important to understanding sustainable livelihoods for small-scale food providers and providing a more integrated picture of the development of local food systems now and post-pandemic. Some studies noted that small retailers may have a hard time competing with large chains to keep prices low during a time of income uncertainty for consumers. More research is needed to understand the experiences of small and independent retailers during the pandemic; this could be an important question for food movements to follow, particularly as the food retail industry is already highly consolidated, and food movements, especially farmers' associations, union, and rural development allies, have been a strong force speaking out against further concentration of power in the sector (IPES-Food & ETC Group, 2021).

In conclusion, the pandemic food-security landscape represents a dynamic moment for food movements in Canada. The vulnerabilities and inequities in the dominant food system revealed by the pandemic have reinforced the importance that

food movements were placing on these issues well before COVID-19 and which they continue to raise. The pandemic food-security landscape highlights the potential and heightened importance for food movements to further convene diverse actors—both within food movements and with other sectors—to collectively respond to the challenges facing Canada's food systems (Clark et al., 2021). A turn toward local food systems during the pandemic may offer heightened opportunities for awareness and action on some of the causes and issues that food movements champion. Now and post-pandemic, we believe that the formation of new networks spanning food movements and other sectors, the associated opportunities for policy change and advocacy, as well as the ways in which renewed interest in local food systems may play into food movements' aims and ambitions will be important considerations for food movements, their allies, and food systems scholars and practitioners to follow. 

References

- Agri-food Analytics Lab. (2020a). *Restaurants post-COVID-19*.
<https://www.dal.ca/sites/agri-food/research/restaurants-post-covid-19.html>
- Agri-food Analytics Lab. (2020b). *Grocery shopping during the COVID-19 pandemic*.
<https://www.dal.ca/sites/agri-food/research/grocery-shopping-during-the-covid-19-pandemic.html>
- Agri-food Analytics Lab. (2020c). *COVID-19 grocery experience*.
<https://www.dal.ca/sites/agri-food/research/covid-19-grocery-experience.html>
- Agri-food Analytics Lab. (2020d). *Household organic food waste—COVID 19*.
<https://www.dal.ca/sites/agri-food/research/household-organic-food-waste---covid-19.html>
- Agri-food Analytics Lab. (2020e). *COVID-19 Online food activity*.
<https://www.dal.ca/sites/agri-food/research/covid-19-online-food-activity.html>
- Agri-food Analytics Lab. (2020f). *COVID-19 food autonomy*.
<https://www.dal.ca/sites/agri-food/research/covid-19-food-autonomy.html>
- Agri-food Analytics Lab. (2021a). *COVID-19 grocery outlook*.
<https://www.dal.ca/sites/agri-food/research/covid-19-grocery-outlook.html>
- Agri-food Analytics Lab. (2021b). *COVID-19 food literacy*.
<https://www.dal.ca/sites/agri-food/research/covid-19-food-literacy.html>
- Agri-food Analytics Lab. (2021c). *COVID-19, 1 year later*.
<https://www.dal.ca/sites/agri-food/research/covid-19--1-year-later.html>
- Alkon, A. H., & Agyeman, J. (Eds.). (2011). *Cultivating food justice: Race, class, and sustainability*. MIT Press.
- Andrée, P., Clark, J. K., Levkoe, C. Z., & Lowitt, K. (Eds.). (2019). *Civil society and social movements in food system governance*. Routledge Press.
- Arrell Food Institute & Canadian Agri-food Policy Institute. (2021). *Growing stronger: Conclusions from agri-food community consultations on the COVID-19 pandemic*.
<https://afi-17cf1.kxcdn.com/wp-content/uploads/2021/01/Growing-stronger-final-report.pdf>

- Barichello, R. (2020). The COVID-19 pandemic: Anticipating its effects on Canada's agricultural trade. *Canadian Journal of Agricultural Economics*, 68(2), 219–224. <https://doi.org/10.1111/cjag.12244>
- Beland, L.-P., Fakorede, O., & Mikola, D. (2020). Short-term effect of COVID-19 on self-employed workers in Canada. *Canadian Public Policy*, 46(S1), S66–S81. <https://doi.org/10.3138/cpp.2020-076>
- Brewin, D. G. (2020). The impact of COVID-19 on the grains and oilseeds sector. *Canadian Journal of Agricultural Economics*, 68(2), 185–188. <https://doi.org/10.1111/cjag.12239>
- Brewin, D. G. (2021). The impact of COVID-19 on the grains and oilseeds sector: 12 months later. *Canadian Journal of Agricultural Economics*, 69(2), 197–202. <https://doi.org/10.1111/cjag.12281>
- Canadian Commission for UNESCO (2020, July 15). *Now is the time to build sustainable food system resilience*. Retrieved from iPolitics at <https://ipolitics.ca/2020/07/15/now-is-the-time-to-build-sustainable-food-system-resilience/>
- Canadian Press, The. (2020, August 11). More COVID cases among Manitoba meat plant staff, but no closure planned. <https://www.ohscanada.com/covid-cases-among-manitoba-meat-plant-staff-no-closure-planned/>
- CBC News. (2020, May 1). *Mayor encourages those with space to plant extra vegetables for Winnipeg Harvest amid surge in demand*. https://www.cbc.ca/news/canada/manitoba/winnipeg-covid-19-winnipeg-harvest-1.5552178?_vz=medium%3Dsharebar
- Centre for Studies on Food Security. (2020, June). *The Centre for Studies on Food Security Statement on COVID-19*. Ryerson University. <https://www.ryerson.ca/foodsecurity/about/food-security-covid19/>
- Charlevoix, S., Gerhardt, A., Taylor, S., Kane, M., Keselj, V., Fitting, E., Foster, K., Kevany, K., Colombo, S., Music, J., Fiander, D., Somogyi, S., Jackson, E., Taylor, G., Haines, J., Uys, P., Van Duren, E., Smyth, S., Lassoued, R., Vercammen, J., Wiseman, K., Barichello, R., & Margulis, M. (2021). *Canada's food price report. 11th Edition, 2021*. Dalhousie University, University of Guelph, University of Saskatchewan, & University of British Columbia. [https://cdn.dal.ca/content/dam/dalhousie/pdf/sites/agri-food/Food%20Price%20Report%202021%20-%20EN%20\(December%202021\).pdf](https://cdn.dal.ca/content/dam/dalhousie/pdf/sites/agri-food/Food%20Price%20Report%202021%20-%20EN%20(December%202021).pdf)
- Chenarides, L., Richards, T. J., & Rickard, B. (2021). COVID-19 impact on fruit and vegetable markets: One year later. *Canadian Journal of Agricultural Economics*, 69(2), 203–214. <https://doi.org/10.1111/cjag.12272>
- Cheng, R., & Yasmeen, G. (2021, March 19). Post-COVID, a zero hunger Canada is within reach. Open Access Government. <https://www.openaccessgovernment.org/post-covid-a-zero-hunger-canada-is-within-reach/106659/>
- Clark, J. K., Lowitt, K., Levkoe, C. Z., & Andr e, P. (2021). The power to convene: Making sense of the power of food movement organizations in governance processes in the Global North. *Agriculture and Human Values*, 38, 175–191. <https://doi.org/10.1007/s10460-020-10146-1>
- Community Food Centres Canada. (2020, July 21). *Coming out on the other side: A recovery plan for food security*. <https://cfccanada.ca/en/News-Events/Latest-News/Announcements/Coming-out-the-other-side-a-recovery-plan-for-foo>
- Corntassel, J., Edgar, R., Monchalin, R., & Newman, C. (2020). Everyday Indigenous resurgence during COVID-19: A social media situation report. *AlterNative: An International Journal of Indigenous Peoples*, 16(4), 403–405. <https://doi.org/10.1177/1177180120968156>
- Cox, A. (2021, March 28). Pandemic-inspired demand for local food down a bit, but still strong, farmers say. *CBC News*. <https://www.cbc.ca/news/canada/new-brunswick/farming-agriculture-new-brunswick-1.5964848>
- Cranfield, J. A. L. (2020). Framing consumer food demand responses in a viral pandemic. *Canadian Journal of Agricultural Economics*, 68(2), 151–156. <https://doi.org/10.1111/cjag.12246>
- Daily Bread Food Bank. (2020). *Hunger lives here: Risks and challenges faced by food bank clients during COVID-19*. <https://www.dailybread.ca/research-and-advocacy/hungerliveshere/>
- Deaton, B. J., & Deaton, B. J. (2020). Food security and Canada's agricultural system challenged by COVID-19. *Canadian Journal of Agricultural Economics*, 68(2), 143–149. <https://doi.org/10.1111/cjag.12227>
- Deaton, B. J., & Deaton, B. J. (2021). Food security and Canada's agricultural system challenged by COVID-19: One year later. *Canadian Journal of Agricultural Economics*, 69(2), 161–166. <https://doi.org/10.1111/cjag.12275>

- DeLind, L. B. (2011). Are local food and the local food movement taking us where we want to go? Or are we hitching our wagons to the wrong stars? *Agriculture and Human Values*, 28, 273–283.
<https://doi.org/10.1007/s10460-010-9263-0>
- Detsky, A. S., & Bogoch, I. I. (2020). COVID-19 in Canada: Experience and response. *JAMA*, 324(8), 743–744.
<https://doi.org/10.1001/jama.2020.14033>
- Dryden, J., & Rieger, S. (2021, May 4). The human machine. *CBC News*.
<https://newsinteractives.cbc.ca/longform/the-human-machine>
- Falconer, R. (2020a). Grown locally, harvested globally: The role of temporary foreign workers in Canadian agriculture. *School of Public Policy Publications*, 13(17), 1–19. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3655198
- Falconer, R. (2020b). Family farmers to foreign fieldhands: Consolidation of Canadian agriculture and the Temporary Foreign Worker Program. *School of Public Policy Publications*, 13(21), 1–26.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3696056
- Food Banks Canada. (2020). *A snapshot of food banks in Canada and the COVID-19 crisis*.
https://foodbanksCanada.ca/a-snapshot-of-food-banks-in-canada-and-the-covid-19-crisis_en-3/
- Food Secure Canada. (2020, May). *Growing resilience and equity: A food policy action plan in the context of Covid-19*.
https://foodsecureCanada.org/sites/foodsecureCanada.org/files/fsc_-_growing_resilience_equity_10_june_2020.pdf
- Goddard, E. (2020). The impact of COVID-19 on food retail and food service in Canada: Preliminary assessment. *Canadian Journal of Agricultural Economics*, 68(2), 157–161. <https://doi.org/10.1111/cjag.12243>
- Goddard, E. (2021). The impact of COVID-19 on food retail and food service in Canada: A second assessment. *Canadian Journal of Agricultural Economics*, 69(2), 167–175. <https://doi.org/10.1111/cjag.12282>
- Government of Canada. (2020). *The food policy for Canada*. <https://agriculture.canada.ca/en/about-our-department/key-departmental-initiatives/food-policy/food-policy-canada>
- Gray, R. S. (2020). Agriculture, transportation, and the COVID-19 crisis. *Canadian Journal of Agricultural Economics*, 68(2), 239–243. <https://doi.org/10.1111/cjag.12235>
- Gray, R. S. (2021). Update to agriculture, transportation, and the COVID-19 crisis. *Canadian Journal of Agricultural Economics*, 69(2), 281–289. <https://doi.org/10.1111/cjag.12280>
- Hailu, G. (2020). Economic thoughts on COVID-19 for Canadian food processors. *Canadian Journal of Agricultural Economics*, 68(2), 163–169. <https://doi.org/10.1111/cjag.12241>
- Hailu, G. (2021). COVID-19 and food processing in Canada. *Canadian Journal of Agricultural Economics*, 69(2), 177–187.
<https://doi.org/10.1111/cjag.12286>
- Hassanein, N. (2003) Practicing food democracy: A pragmatic politics of transformation. *Journal of Rural Studies*, 19(1), 77–86. [https://doi.org/10.1016/S0743-0167\(02\)00041-4](https://doi.org/10.1016/S0743-0167(02)00041-4)
- Hobbs, J. E. (2020). Food supply chains during the COVID-19 pandemic. *Canadian Journal of Agricultural Economics*, 68(2), 171–176. <https://doi.org/10.1111/cjag.12237>
- Hobbs, J. E. (2021). Food supply chain resilience and the COVID-19 pandemic: What have we learned? *Canadian Journal of Agricultural Economics*, 69(2), 189–196. <https://doi.org/10.1111/cjag.12279>
- Holland, K. L. (2020). Canada's food security during the COVID-19 pandemic. *The School of Public Policy Research Paper*, 13(13). <https://policyschool.ca/wp-content/uploads/2020/06/Food-Security-Holland.pdf>
- Holt-Giménez, E. (Ed.) (2011). *Food movements unite! Strategies to transform our food system*. Food First Books.
- Hou, F., Frank, K. & Schimmele, C. (2020). *Economic impact of COVID-19 among visible minority groups*. Statistics Canada.
<https://www150.statcan.gc.ca/n1/pub/45-28-0001/2020001/article/00042-eng.htm>
- IPES-Food. (2020, April). COVID-19 and the crisis in food systems: Symptoms, causes, and potential solutions.
http://www.ipes-food.org/_img/upload/files/COVID-19_CommuniqueEN%283%29.pdf
- IPES-Food & ETC Group. (2021). *A long food movement: Transforming food systems by 2045*.
http://www.ipes-food.org/_img/upload/files/LongFoodMovementEN.pdf
- James, D., Bowness, E., Robin, T., McIntyre, A., Dring, C., Desmarais, A. A., & Wittman, H. (2021). Dismantling and rebuilding the food system after COVID-19: Ten principles for redistribution and regeneration. *Journal of Agriculture, Food Systems, and Community Development*, 10(2), 29–51. <https://doi.org/10.5304/jafscd.2021.102.019>

- Kramer, D. M., Ferguson, R., & Reynolds, J. (2019). *Sustainable consumption for all: Improving the accessibility of sustainably-produced foods in Canada*. Food Secure Canada. https://foodsecurecanada.org/sites/foodsecurecanada.org/files/attached_files/research_report_sustainable_consumption_for_all_fsc_may_2019.pdf
- Lamarche, B., Brassard, D., Lapointe, A., Laramée, C., Kearney, M., Côté, M., Bélanger-Gravel, A., Desroches, S., Lemieux, S., & Plante, C. (2021). Changes in diet quality and food security among adults during the COVID-19-related early lockdown: Results from NutriQuébec. *The American Journal of Clinical Nutrition*, 113(4), 984–992. <https://doi.org/10.1093/ajcn/nqaa363>
- LaPlante, G., Andrekovic, S., Young, R. G., Kelly, J. M., Bennett, N., Currie, E. J., & Hanner, R. H. (2021). Canadian greenhouse operations and their potential to enhance domestic food security. *Agronomy*, 11(6), Article 1229. <https://doi.org/10.3390/agronomy11061229>
- Larue, B. (2020). Labor issues and COVID-19. *Canadian Journal of Agricultural Economics*, 68(2), 231–237. <https://doi.org/10.1111/cjag.12233>
- Larue, B. (2021). COVID-19 and labor issues: An assessment. *Canadian Journal of Agricultural Economics*, 69(2), 269–279. <https://doi.org/10.1111/cjag.12288>
- Lawley, C. (2021). COVID-19 and Canadian farmland markets in 2020. *Canadian Journal of Agricultural Economics*, 69(2), 291–298. <https://doi.org/10.1111/cjag.12283>
- Levi, E., & Robin, T. (2020, April 29). *COVID-19 did not cause food insecurity in Indigenous communities but it will make it worse*. Yellowhead Institute. <https://yellowheadinstitute.org/2020/04/29/covid19-food-insecurity/>
- Levkoe, C. Z., McLaughlin, J., & Strutt, C. (2021). Mobilizing networks and relationships through Indigenous food sovereignty: The Indigenous Food Circle's response to the COVID-19 pandemic in Northwestern Ontario. *Frontiers in Communication*, 6. <https://doi.org/10.3389/fcomm.2021.672458>
- Lorinc, J. (2022, February 05). Is the supply chain broken for good? Experts warn grocery stores may be missing food items for years. *The Toronto Star*. <https://www.thestar.com/business/2022/02/05/is-the-supply-chain-broken-for-good-experts-warn-grocery-stores-may-be-missing-food-items-for-years.html>
- Martorell, H. & Andree, P. (2018). The commoning of food governance in Canada: Pathways towards a national food policy? In J. L. Vivero-Pol, T. Ferrando, O. De Schutter, & U. Mattei, (Eds.), *Routledge handbook of food as a commons* (pp. 266–280). Routledge Press.
- McEwan, K., Marchand, L., Shang, M., & Bucknell, D. (2020). Potential implications of COVID-19 on the Canadian pork industry. *Canadian Journal of Agricultural Economics/Revue canadienne d'agroéconomie*, 68(2), 201–206. <https://doi.org/10.1111/cjag.12236>
- McEwan, K., Marchand, L., & Shang, Z. (2021). The Canadian pork industry and COVID-19: A year of resilience. *Canadian Journal of Agricultural Economics*, 69(2), 201–206. <https://doi.org/10.1111/cjag.12276>
- Men, F., & Tarasuk, V. (2021). Food insecurity amid the COVID-19 pandemic: Food charity, government assistance, and employment. *Canadian Public Policy*, 47(2), 202–230. <https://doi.org/10.3138/cpp.2021-001>
- Migrant Workers Alliance for Change. (2020). *Unheeded warnings: COVID-19 & migrant workers in Canada*. <https://migrantworkersalliance.org/wp-content/uploads/2020/06/Unheeded-Warnings-COVID19-and-Migrant-Workers.pdf>
- Mullins, L., Charlebois, S., Finch, E., & Music, J. (2021). Home food gardening in Canada in response to the COVID-19 pandemic. *Sustainability*, 13(6), Article 3056. <https://doi.org/10.3390/su13063056>
- Polasub, W., Beckie, M., Knezevic, I., Nielsen, D., & Mah, C. (2020). *Inter-provincial survey: Food access, concerns and perceptions during the COVID-19 pandemic, 2020*. <https://www.kpu.ca/isfs/covid19-consumer-survey>
- Polsky, J. Y., & Garriguet, D. (2022, February 18). *Household food insecurity in Canada early in the COVID-19 pandemic*. Statistics Canada Health Reports. <https://www150.statcan.gc.ca/n1/pub/82-003-x/2022002/article/00002-eng.htm>
- Polsky, J. Y., & Gilmour, H. (2020, December 16). *Food insecurity and mental health during the COVID-19 pandemic*. Statistics Canada Health Reports. <https://www.doi.org/10.25318/82-003-x202001200001-eng>

- Radcliffe, J., Skinner, K., Spring, A., Picard, L., Benoit, F., & Dodd, W. (2021). Virtual barriers: Unpacking the sustainability implications of online food spaces and the Yellowknife Farmers Market's response to COVID-19. *Nutrition Journal*, 20(1), Article 12. <https://doi.org/10.1186/s12937-021-00664-x>
- Richards, T. J., & Rickard, B. (2020). COVID-19 impact on fruit and vegetable markets. *Canadian Journal of Agricultural Economics*, 68(2), 189–194. <https://doi.org/10.1111/cjag.12231>
- Richardson, L., & Crawford, A. (2020). COVID-19 and the decolonization of Indigenous public health. *Canadian Medical Association Journal*, 192(38), E1098–E1100. <https://doi.org/10.1503/cmaj.200852>
- Rude, J. (2020). COVID-19 and the Canadian cattle/beef sector: Some preliminary analysis. *Canadian Journal of Agricultural Economics*, 68(2), 207–213. <https://doi.org/10.1111/cjag.12228>
- Rude, J. (2021). COVID-19 and the Canadian cattle/beef sector: A second look. *Canadian Journal of Agricultural Economics*, 69(2), 233–241. <https://doi.org/10.1111/cjag.12277>
- Spence, N., Chau, V., Farvid, M. S., White, J., Rasalingam, P., & Loh, L. (2020). The COVID-19 pandemic: Informing policy decision-making for a vulnerable population. *International Indigenous Policy Journal*, 11(3), 1–37. <https://doi.org/10.18584/iipj.2020.11.3.10859>
- Statistics Canada (2020a, April 8). Canadian consumers prepare for COVID-19. *Prices Analytical Series*. <https://www150.statcan.gc.ca/n1/pub/62f0014m/62f0014m2020004-eng.htm>
- Statistics Canada (2020b, May 11). Canadian consumers adapt to COVID-19: A look at Canadian grocery sales up to April 11. *Prices Analytical Series*. <https://www150.statcan.gc.ca/n1/pub/62f0014m/62f0014m2020005-eng.htm>
- Statistics Canada. (2020c, June 24). *Food insecurity during the COVID-19 pandemic, May 2020* (Catalogue no. 45280001). <https://www150.statcan.gc.ca/n1/en/pub/45-28-0001/2020001/article/00039-eng.pdf?st=o2chFhiV>
- Statistics Canada. (2021). Canadian Community Health Survey—Annual component (CCHS). <https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&Id=1314175>
- Tarasuk, V. (2020, March 26). Food insecurity in Canada—Latest data from PROOF. PROOF Food Insecurity Policy Research. <https://proof.utoronto.ca/resources/webinar/>
- Tarasuk V., & Mitchell, A. (2020). *Household food insecurity in Canada, 2017-2018*. PROOF Food Insecurity Policy Research. <https://proof.utoronto.ca/resources/proof-annual-reports/household-food-insecurity-in-canada-2017-2018/>
- Tutton, M. (2020, April 18). Coronavirus: Farmers enjoy 'buy local' trend, but worry it may not last. *Global News*. <https://globalnews.ca/news/6836795/coronavirus-buy-local/>
- Vercammen, J. (2020). Information-rich wheat markets in the early days of COVID-19. *Canadian Journal of Agricultural Economics*, 68(2), 177–184. <https://doi.org/10.1111/cjag.12229>
- Weersink, A., von Massow, M., & McDougall, B. (2020). Economic thoughts on the potential implications of COVID-19 on the Canadian dairy and poultry sectors. *Canadian Journal of Agricultural Economics*, 68(2), 195–200. <https://doi.org/10.1111/cjag.12240>
- Weersink, A., von Massow, M., & McDougall, B., & Bannon, N. (2021). Re-examining the implications of COVID-19 on the Canadian dairy and poultry sectors. *Canadian Journal of Agricultural Economics*, 69(2), 215–224. <https://doi.org/10.1111/cjag.12284>
- Yeung, M. T., & Kerr, W. A. (2021). Canadian agri-food export opportunities in a Covid-19 world. *The School of Public Policy Briefing Paper*, 14(1). <https://doi.org/10.11575/sppp.v14i.70578>