

The Durham Food System Report Card 2024

Prepared by:

Francesca Hannan Mary Anne Martin Mary Drummond Jessica Topfer Pauline Lovegrove Amanda Kratochvil Beth Hendry Rachel Lum

Student Researchers:

Jenelle Regnier-Davies Emma Woods Sarah O'Toole **Emmanuel Gasore**

Reviewers and Advisors:

Allison de Vos. Invest Durham

Ben Earle, Feed the Need in Durham Helen Giacchetta, Métis Nation Oshawa and Durham Region Bonnie Littley, Duffins Rouge Greenspace Alliance Ana Mazhar, Durham's Child Nutrition Project Ian McVey, Region of Durham Sustainability

With acknowledgments to:

Carleton University Feed the Need in Durham Mitacs

The Nourish and Develop Foundation Region of Durham Toronto Metropolitan University Trent University

Graphic Design: Derek Chung Communications

For questions, contact:

Mary Drummond, info@durhamfoodpolicycouncil.com Mary Anne Martin, marymartin2@trentu.ca

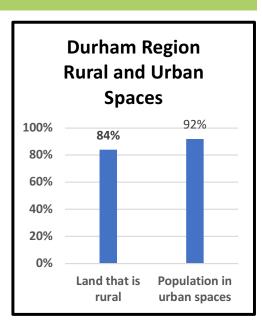
For references: Please see www.durhamfoodpolicycouncil.com/thedurhamf oodsystemreport2024 or email DFPC at info@durhamfoodpolicycouncil.com.

Introduction

The Durham Food System Report Card aims to create an accessible overview of the Durham Region food system by bringing together relevant indicators and data from across a spectrum of food-related activities in the region. This supports the advancement of the regionally endorsed Durham Food Charter, a citizen-defined vision for a just and sustainable local food system founded on strong policy, local agriculture, community partnership, and health foundations. The Food System Report Card project builds on more than 20 years of work by many different actors toward robust food system planning in Durham.

Durham Region

The land on which Regional Municipality of Durham (Durham Region) sits is the traditional territory of the Mississauga Nation, occupying a portion of the land covered by the Williams Treaties of 1923. It includes Scugog Island First Nation.



Durham contains

- the greatest proportion of the total area of land in crops in the Greater Golden Horseshoe (31.2%),
- the second-highest proportion of the total number of farms (23.6%)

80% of Durham Region lies within the provincially-designated Greenbelt, including a majority of the region's agricultural land and the environmentally significant Oak Ridges Moraine.

A food system can be described as "a set of food related activities including agriculture, processing, distribution, consumption, and waste management, each with its attendant social, environmental and economic dimensions." - Ontario Professional Planners Institute

Durham's population is almost 700,000 and expected to rise to approximately 1 million by 2041.

Why a Food System Report Card?

This report card is tailored to identify available information and information gaps. A future iteration of the Report Card might present metrics that directly relate to specific components of a future Durham food system strategy and enable benchmarking of progress over time.

How this Report Card is Organized

The Report Card's framework is organized into sections that reflect the 7 Pillars of Food Sovereignty (developed at the International Forum for Food Sovereignty in 2007 and amended during the People's Food Policy for Canada discussions). Food sovereignty is central to the mission statement of the Durham Food Policy Council: to "create an environment that supports community food security through food sovereignty and a sustainable local food system in the Region of Durham."

In the Report Card, each pillar encompasses one or more indicators. These are things we seek to measure or assess that indicate whether our local food system is functioning well according to food sovereignty principles. Metrics are data points or data sets that can be used as measurements of the associated indicator. This condensed version of the Report Card presents the most significant data identified in the research, while the full report includes complete lists of all data-based metrics that were identified.

Neither the indicators nor the metrics included in the report exhaust all the possibilities for "what to measure" and "how to measure it." Rather, they represent the ideas and issues that came to the fore in this research.

How we did the research¹

The research process included:

- a broad **literature review**
- an internet asset scan to identify previously unencountered data sources and assets such as projects, programs, places, or actors that contribute to food sovereignty
- interviews with representatives from social service organizations, farming, media, and nutrition
- online events such as a roundtable and symposium for stakeholders with participant discussion
- an online consultation form for input on the structure and content of the Report Card
- an online survey on Durham residents' experiences within the local food system
- **inquiries** to specific contacts by email, phone, or video call

People who provided input² to DFPC research, 2021-2022 included:

- municipal staff
- community health, community development, social services, and charitable organizations
- farms, grower-processors, farmers markets, and agricultural community organizations
- community gardens and urban agriculture businesses
- environmental organizations
- general public

- Indigenous leadership, services, and cultural organizations
- social, cultural and/or political (excluding environmental) community groups
- food processing, distribution, and retail businesses and business associations
- post-secondary institutions
- faith communities
- labour organizations

To determine which data was appropriate for publication in the Report Card, we employed the following inclusion criteria:

- scale-relevant: data represents the Region of Durham and the municipalities within it
- documented: data is found in existing research reports or records
- available: data that is free and available to the public, or reasonably accessible through communication with food system stakeholders
- credible: data is collected using sound research methods
- accessible: data is easy to understand

Limitations: The amount and type of information gathered was limited by: out-of-date online entries, lack of capacity to verify them all, a low response rate during the COVID-19 pandemic, pandemic-related changes to data collected before 2020, and lack of access-or capacity to seek out-comprehensive updated 2021 census regional data. Data has been updated as possible as the project proceeded.

Food sovereignty is summarized as the condition where people define their own food and agriculture systems to produce healthy and culturally appropriate food for people through ecologically sound and sustainable methods.

Overarching Recommendation Statement:

This report card is meant to be updated, and seeking more recent data should be a priority going forward. Beyond all of the informational resources recommended in this document, ongoing material resources should be identified to maintain, enhance, and distribute the Food System Report Card for Durham Region at regular intervals.

¹ Refer to the longer version for how this research was conducted.

² Attended the April 2021 Symposium or September 2021 Roundtable event, completed survey, and/or provided information directly (email or call). This does not include the eight key informants who accepted invitations for structured interviews

Pillar 1: **Food is Sacred**

Recognizes that food is a gift of life, and not to be squandered; Asserts that food cannot be commodified



The Food is Sacred pillar of food sovereignty was included on the recommendation of Indigenous participants through the People's Food Policy Project discussions from 2008 to 2011. It asserts that food is much more than a commodity and that it is an asset to life, while also reminding us that food is the bond between human beings and natural elements. It challenges measurements using databased metrics; thus, it is much more difficult to develop indicators associated with this pillar. However, Food is Sacred is put first to remind us of its relevance to all areas of the food system and to the importance of qualitative research and reflection.

Indicator 1A

Cultural, Social and Spiritual Connections to Food

Food is Sacred highlights the importance of food to personal identity and community connection, a viewpoint strongly expressed throughout participant interviews. Many mentioned cultural norms and traditions involving food supporting individual and communal health and happiness. Therefore, exploring connection points to cultural and religious community, belief and tradition that feature food as a central component can begin the conversation about how to support

this pillar. Consultation with Indigenous elders, spiritual leaders and religious communities of all faiths should always be considered in this conversation because of their roles fostering and passing on the understanding that food is sacred. As these activities are often informal, there is likely more information about Food is Sacred available, but stronger relationships to food system stakeholders are needed to learn the ways that people strengthen and pass on their social, cultural and spiritual ties to food.

Recommendation:

Cultural, social, and spiritual connections to food should be assessed qualitatively with the help of Indigenous elders, spiritual leaders and religious communities of all faiths.

Pillar 2: **Food for People**

Places people's need for food at the centre of policies and insists that food should be seen as more than a commodity; rather, it is a human right



The Food for People pillar asserts that the primary function of food systems should not be profit or a narrow focus on maximizing production, but food security. Importantly, food security requires both physical and economic access to food that meets one's unique requirements for health and wellness, while corresponding to one's culture. Despite Canada having a human rights obligation to ensure food security for all, income-driven food insecurity remains prevalent in Canada, affecting 18.4% or 1 in 6 people across the ten provinces in 2022. As a result, nonprofit food programs have become fixtures in Canada's food system.

Indicator 2A

Household Food Insecurity

The first indicator, Household Food Insecurity, measures the economic factors impacting food insecurity in Durham. Importantly, food insecurity is heightened during times of disaster such as the Covid-19 pandemic, and disproportionately impacts already vulnerable populations. This impact can be seen in Feed the Need in Durham reporting a 30% increase in

clients between March and December 2020.

Durham Health reported that in 2022, the cost of a Nutritious Food Basket (NFB) in Durham Region was \$1067 per month for a family of four, which amounts to:

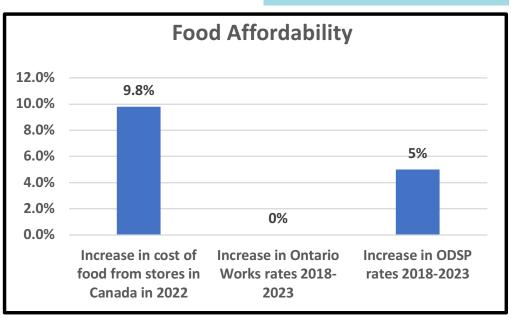
39% of the monthly income for a family receiving income from the Ontario Works (OW) social assistance program

- 27% of the monthly income for a family with a fulltime minimum wage earner
- 11% of the median monthly income

For a single person, the cost of the NFB in 2022 was \$386, representing:

45% of the monthly income of an **OW** recipient

15.5% of Durham households were food insecure from 2018 to 2020.



Food Security: means "a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice, and the ability of the agricultural community to support this system." - Durham Regional Official Plan

Food insecurity is the "inadequate or insecure access to food because of financial constraints," remains prevalent in Canada. - Li, Fafard St-Germain, Tarasuk, Household Food Insecurity in Canada 2022

- 29% of the monthly income of a person receiving Ontario Disability Support Program (ODSP) income
- 14% of the monthly income of a person receiving Old Age Security/Guaranteed Income Supplement

NFB does not consider dietary restrictions or food constraints due to

existing health conditions. Food and housing costs alone would exceed the income of a single person receiving OW by \$509 and that of a single person receiving ODSP by \$322.

In 2022, the cost of food from stores in Canada increased 9.8%, representing the sharpest increase since 1981 while social assistance

rates have been stagnant since 2018, with the exception of a 5% increase in ODSP rates in September 2022.

One type of data that is not currently available is studies on the communities hardest hit by food insecurity in Durham region.

Recommendations:

- actors with research capacity obtaining and publishing more recent Durham-specific data
- collaboration between municipal governments, public health agencies, community organizations, and citizens to complete a more focused study on the communities and populations that are most affected.

Indicator 2B

Community Food Access

This indicator considers the challenges Durham residents experience in their physical and social environments when trying to access food. In addition to the economic factors that are undoubtedly most prevalent, significant barriers to food access in Durham identified by research participants included geography, transportation, social stigma, and availability of information about food access points. Thus, while economic reforms are needed, some relief for residents experiencing food insecurity can come from community planning that prioritizes food access, and the creation or improvement of nonmarket food access points that break down economic and social barriers.

Mapping of food access points is a first step for such planning. While no complete mapping exists for Durham, the research identified listings of food access points that can be a starting point, such as the Durham Business Count, Feed the Need in Durham's online directory, and 211 Ontario. Review of these databases revealed that additional steps to verify information and identify more access points would be needed for accurate mapping. Obtaining a detailed picture of physical food access issues in Durham should be a focused projector series of projects-achieved through collaboration between several actors in the community. It should include the location of the populations who are likely to rely on certain access points, and access points' positions in relation to residences, major roads, transit routes, and walkable areas.

In addition to supporting better transit planning and the creation of new access points where they are needed, a mapping project would create an overall picture of Durham's food assistance network, which could bolster collaboration between programs. This is important as interviewees representing food assistance programs often pointed to the importance of collaboration with other organizations in their communities for addressing clients' needs, by allowing a broader view of a community's resources and opportunities to distribute them more efficiently.

Durham Alliance Outreach's food pantry is an example of a food program aimed at breaking down a social barrier to access, by allowing LGBTQ2S people to access food in a welcoming space.

Some programs that exist to reduce geographic barriers include The Nourish and Develop Foundation Mobile Food Market and Community Care Durham food deliveries.

Table 4: Food security program usage through the Feed the Need in Durham Service Network

April 1/21 - March 31/22		Change from April 1/20 - March 31/21	Breakdowns
Number of individuals who accessed a food bank at least once	23,661	Up 48%	 888 were post-secondary students 25% were first-time food bank users 65% were renting their homes 40% listed social assistance or ODSP as their primary source of income Reasons for visiting a food bank: 62% - Rising cost of food 20% - Housing costs 7% - Declining wages
Number of visits to food banks	134,518	Up 58%	 5.7 visits per client on average 38% of visits were made by children or youth under 18 years old
Number of visits to emergency meal/snack programs	344,761	Up 68%	 87% of meals were provided to people who were homeless, precariously housed, or street involved

Recommendations:

- A collaborative mapping project should be undertaken to produce an authoritative listing of food access points including hours of operation, location relative to transit services, and location relative to the communities they serve.
- A study of organizations that provide non-commercial food distribution services should be undertaken to identify opportunities to pool resources, thereby lowering costs and increasing efficiencies.

Indicator 2C

Access to Culturally Appropriate Food

This section focuses on the extent to which Durham residents can access culturally appropriate foods, which is important to identity and spirituality. To improve access, it is important to consider the needs of culturally specific food businesses and to identify the

communities needing greater access to culturally appropriate foods using the food access mapping techniques discussed in Indicator 2A.

"We need more awareness in general as to some of the other food products that do exist or the other meals that are valued within our community... but awareness can only take us so far. We need to have availability of resources, and I think that does fall with those who are producing, sourcing, and distributing food, from grocery stores to any of the other businesses that are involved." - interview participant

Recommendation:

The authoritative listing of food access points should include culturally-specific providers and their location relative to the communities they serve.

Pillar 3: **Values Food Providers**

Respects the work of food providers and the ways in which sustainable livelihoods are supported



This pillar considers the work of food providers across food supply chains, recognizing that good food must come from good jobs. These jobs are situated in:

- growing
- harvesting
- transportation
- processing
- packaging
- wholesaling
- retailing
- disposal

Indicator 3A

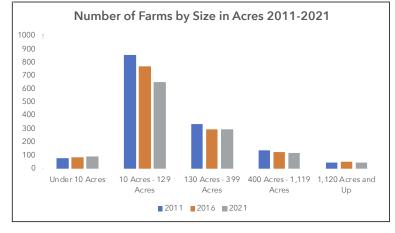
Farm Business Diversity and Viability

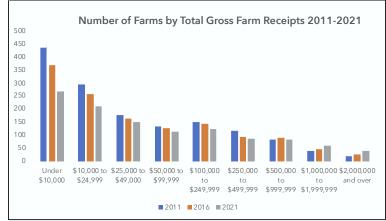
The number of farms in Durham has declined 17.5% since 2011, with smaller decreases among larger farms. Notably, the number of farms under 10 acres has been increasing, but the average size of farms overall has risen.

The larger the farm, the greater the gross farm receipts tend to be. There has been an increase in farms taking in over \$1,000,000/yr,

no change in farms taking in \$500,000-\$999,999/yr, and a decrease in farms in all other earning ranges.

- For every dollar of revenue, 83 cents of expenses is incurred
- For every 1 acre owned, 1.6 acres are leased.
- Farmland leased by developers is less likely to stay in use for food production in the long-term.
- 65% of farms report no succession plan.





Recommendation:

- Deeper analysis is required to understand the farming sector's (including small/new farms) resilience including land ownership and changes in it, types of farming operations, and changes in farming operations including crop diversity, size, and scale.
- Study the barriers to profitability and identify whether there are opportunities for improvement.

Indicator 3B

Welfare of Farmers

Changes in the business of farming may impact the health, wellness, and economic stability of farm operators. 35% of farm operators in the region are working more than 40 hours per week on the farm. In addition, 45% of farm operators have some paid work off-farm which may reflect insufficient farm incomes to cover the operators' living expenses. Of these, 64% were working over 30 hours/wk off-farm, and 36% are working over 40 hours/wk off-farm. Nearly 30% of all

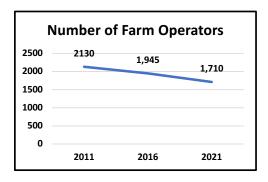
farm operators in Durham Region work full-time hours off-farm in addition to farming.

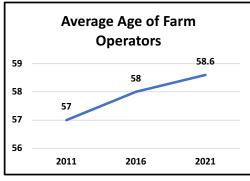
The average age of farmers in Durham is rising. While the number of farmers has decreased in all age groups, the smallest decrease has been in the number of farmers aged 55 years or older. The relative lack of younger farmers may stem from understanding the difficulty and stress of this profession and barriers to entry for those who do want to farm.

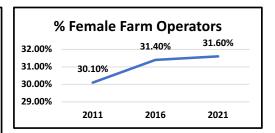
Durham saw decreases in both male

and female farm operators from 2016-2021, more so among male farm operators. As a result, the percentage of farm operators who are female increased slightly.

The Census of Agriculture does not collect data on other dimensions of the identity of farm operators such as racialized, immigrant, or queer farmers. However, understanding the demographics of the farming population could help to inform policy or programs to support farmers.







Farmer Associations or Support Programs in Durham:

- Durham Federation of Agriculture
- Durham Farm Fresh

- National Farmers Union Ontario Local 345
- Durham Farm and Rural Family Resources

Recommendation:

• Develop metrics for socioeconomic and demographic traits of interest at the local level by using regional census data.

Understanding the demographics of the farming population could help to inform policy or programs to support farmers.

Indicator 3C

Welfare of Food System Workers

The research identified little Durham data about the health, wellness, and economic stability of employees of farms and other food production, processing, and distribution businesses. However, labour issues in the broader food system are prevalent. Food processing, retail, and service jobs often provide minimal employee protections or benefits. Small and alternative farms struggling for profitability often turn to unpaid internships. Exceptions to Ontario labour legislation combined with the

income crisis facing farm businesses leave farm workers, especially temporary foreign workers, vulnerable to low pay and strenuous working conditions.

The research identified only two active unions representing food system workers in Durham: United Food and Commercial Workers Local 1006A, representing workers at 8 grocery stores, 2 restaurants, and 3 other food service providers; and Unifor Local 222, representing workers at the Loblaw Distribution Centre in Ajax and Premier Implementation Solutions in Oshawa.

Temporary migrant workers harvest most of Ontario's horticultural crop and Durham farmers have commented on their importance to the local agricultural sector. No public reporting was found on employers of foreign temporary workers in Durham nor the precise number or proportion of temporary foreign workers in Durham. However, one survey of Durham agri-business employers found that nearly 48% of agri-business producers' employees were temporary or seasonal, compared to only 20% of other types of businesses' employees.

Although temporary migrant work allows workers to financially support their families back home, workers in Canada may experience challenges like:

- lack of paths to permanent residency
- employer-specific, discretionary work contracts
- high degree of worker dependence on their employers
- possible reluctance to express health, safety, or housing concerns for fear of being returned to their home countries or not re-hired in future seasons
- language barriers and lack of integration into surrounding communities
- insufficient government inspections to ensure employers' compliance with health and safety requirements

Organizations involved in foreign agricultural worker outreach in Durham:

- Durham Region Migrant Agricultural Workers Network (run by staff of the AIDS Committee of Durham Region and community volunteers)
- Durham Region Migrant Worker Ministry (collaboration between several churches)
- Brock Community Health Centre
- The Nourish and Develop Foundation
- Durham Region Health Department: inspects worker residences and provides health and safety resources for both employers and employees

Recommendation:

Better public data is required in Durham Region to understand the welfare of food system workers particularly pertaining to foreign agricultural workers, employment conditions, and labour issues.

Indicator 3D

Education and Training in Agriculture

Older farmers are retiring faster than new farmers are entering the industry, resulting in a shortage of people with skills needed by farms and agriculture-related businesses. 1 in 3 agriculture jobs in Canada are estimated to go unfilled, most of these in Ontario, by 2029.

A small local survey in the regional **Economic Development Department's** Local Food Business Retention and Expansion Project Report found:

- 70% of the agri-food business respondents and 86% of producers specifically, rated the availability of qualified workers in the region as fair or poor, largely because of a lack of applicants, especially those with the required skills
- 39% of the businesses responding reported that they participate in co-op, internship, or apprenticeship programs, to agriculture and 8 other programs

related to agri-food occupations offered in the Durham area. One secondary school, Brooklin High School, offers a Specialist High Skills Major program in agriculture.

Structural reforms and supports that improve labour conditions and farm operators' livelihoods are also necessary for encouraging new entrants into agricultural careers.

Recommendation:

Opportunities to grow Durham's agricultural education and training programs include connecting participants with employment opportunities, introducing more high school and experiential learning programs, and creating less formal forms of education and training.

Pillar 4: Works with Nature

Maximizes the contributions of ecosystems; improves sustainability and resilience



'Works with Nature' recognizes the importance of working in harmony with the surrounding ecosystem to ensure sustainable, resilient food production, and the ability to adapt to a changing environment. For Durham, this involves land use planning, climate change adaptation planning, and identifying current and possible sustainable and ecological agricultural practices—as well as the supports that farms may need in order to implement these.

Indicator 4A

Protection of Farmland

The first indicator for this pillar examines the state of the local agricultural land base, which is the essential natural basis of a resilient regional food system. One of the most significant trends influencing the agricultural sector is the rising cost of land driven by urbanization and developers' speculative purchasing.

Provincial Government Policy

In November, 2022, the Ontario Provincial Government passed Bill 23: The More Homes Built Faster Act. The Bill removes Durham Region's ability to approve decisions on land use, decreases funding for municipal infrastructure from development charges, removes over 4500 acres of Greenbelt for development in Durham, and restricts the purview of conservation authorities. In effect, this Bill can be expected to reduce natural areas, biodiversity, and foodproducing land. Bill 39: The Better Municipal Governance Act, also passed in 2022, repeals the Duffins Rouge Agricultural Preserve Act, opening up the 4700-acre preserve to development. Due to public pressure, the decision to remove parcels of land from the Greenbelt has been reversed. However, there are other threats to the Greenbelt that have not yet been addressed at the time of printing.

Regional Government Policy

On May 17, 2023, Durham Regional Council adopted an amended Regional Official Plan (ROP). The new ROP will take effect once approved by the provincial Ministry of Municipal Affairs and Housing. Over 9000 acres of land were added to the urban boundary.

Land Trusts

In rural areas where land is not protected for agricultural use by policy, it may be protected by a land trust. Land trusts are organizations—which can be local, provincial or national in scope—that raise funds to acquire land for the purpose of conserving its current features or uses.[i] The research did not find any published information about trusts that have acquired land for this purpose in Durham, but a focused investigation into rural land ownership using public records might reveal more.

Recommendation:

Further research into the use of land trusts to protect Durham agricultural land is urgently needed. In addition, there needs to be publicly accessible information on how many exist in Durham.

Indicator 4B

Environmental Impacts of Food Production and Adoption of Sustainable Farming Practices

The next indicator asks how it is possible to assess both the impacts of Durham's food production on the

natural environment and the progress being made to reduce these impacts through improved agricultural practices.

This is a challenging area as detailed accounting of metrics like the flow of natural resources, pollutants, and

other materials between the economy and the environment is not usually performed at the regional level. That work is most often done when governments create policy whose implementation requires monitoring and reporting. A significant local example is the Durham Community Energy Plan (DCEP), for which a baseline energy and emissions inventory was commissioned in 2015. The research did not find any publicly-available implementation reports for the DCEP containing updated data.

Greenhouse gas emissions from
Durham agriculture sector's energy
use, 2015: 70,085 tonnes of CO2
equivalent
Agriculture's share of Durham's total
carbon emissions, 2021: 3%

Water quality is an environmental metric that should be considered in evaluating the sustainability of the local food system, as agricultural runoff is one significant contributor to freshwater pollution. Of the five conservation authorities present in Durham, three host Open Data pages where the public can access this data—

the Lake Simcoe Region Conservation Authority, Toronto Region Conservation Authority, and Central Lake Ontario Conservation Authority. Developing relevant Food System Report Card metrics might be possible if local actors with significant knowledge of agriculture and ecology collaborate to select the most salient measurements and communicate the extent to which they might be influenced by food production. As noted earlier, conservation authorities' powers have been limited by the current provincial government.

The Census of Agriculture asks farms to report on their adoption of a range of practices that influence the interaction of agriculture and the environment. These data tables are included in the full version of the Report Card.

In addition to practices that mitigate environmental impacts, farms are changing their behaviour to adapt to the significant risks and potential opportunities presented by the changing climate. The Durham Community Climate Adaptation Plan (DCCAP) outlines objectives in four areas:

- local awareness and education on agriculture and climate change
- developing local research capacity
- policy support through harmonization of various regional and area municipal policies and processes
- and consideration of the agriculture sector's needs and contributions in the implementation of DCCAP projects and programs.

The research did not identify any reporting on implementation of this strategy that has yet been published.

Recommendation:

Further development of the Food System Report Card must include measurements to capture the environmental impacts of food production including data related to water and soil quality, as well as the prevalence and effectiveness of sustainable practices that mitigate environmental impacts. Consultation with farmers will be valuable for prioritizing which practices to track.

Indicator 4C

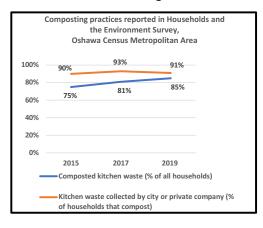
Reduction and Sustainable Management of Food Waste

Disposal of waste is often pictured as the end of the food supply chain, the "leftovers" after consumption. The reality is that significant volumes of food—including edible food—are disposed of at every stage of production and distribution. 58% of all food produced in Canada is ultimately disposed of, and 32% of this food is still edible when it is discarded according to a 2019 study by Second Harvest.

Household Food Waste Management

Green Bin collection of household food waste from single-family residences is available throughout the region. The Regional Waste Management Department estimates that 60% of households with access to its program are making use of the Green Bin to compost their food

Household Food Waste Management



waste. However, a 2018 garbage composition study found that food waste still remained the largest single component of household garbage, at 30%. The vast majority of composting households in Durham rely on the municipal programs. However, it is beneficial for households to compost their own kitchen waste where possible to reduce pressure on municipal waste management infrastructure. The regional

government encourages this through the sale of backyard composters.

Private Food Waste Management Initiatives

Currently, there is little publicly available reporting on food loss, waste reduction, and food waste management in the Industrial, Commercial and Institutional sector, which is typically not included in municipal waste collection programs. As these facilities comply with increasingly strict requirements under provincial regulation, it may become easier to learn about what Durham businesses and institutions are doing to address food loss and waste. The volume of waste being diverted through circular economy projects could be another metric of interest as such projects develop.

Food Loss

A significant contributor to food loss is overproduction, which businesses

Food loss: any disposal of food that occurs before food arrives at its point of sale

Food waste: the disposal of food at the retail and final food preparation and consumption stages.

Circular Economy: an economic model in which materials are continuously (re)circulated - as opposed to a linear model in which they are discarded as waste after use. In the case of food waste, this includes using food scraps, inedible food byproducts, or lower-grade produce to make other products instead of discarding them.

often consider necessary for minimizing risk in an environment where product availability at short notice is expected. There is little public information available at the local level about food supply chain businesses' generation of food loss or efforts to mitigate it.

The amount of surplus food arriving at the retail stage of the supply chain is more visible locally, as some of this surplus is donated to local food banks. 70 Durham businesses reported donating excess inventory through Second Harvest's Food Rescue program in 2021.

The Industrial, Commercial and Institutional (IC&I) sector refers to all of the places where waste is generated apart from households. The provincial government reports that "the food service, wholesale and retail sectors together account for about 72% of all IC&I food and organic waste sent to disposal in Ontario each year" and that, in 2015, "75% of food and organic waste generated in the IC&I sector [was] sent for disposal." - Ontario Food and Organic Waste Framework

In 2021, Durham College announced its intent to build a Centre for Organic Regeneration, a facility where campus food waste will be composted for use on the College's urban farm thus "complet[ing] the field-to-fork (and now back-to-field) loop" created by the College's food programming.

Recommendation:

Further development of the Food System Report Card will require collaboration with food supply chain businesses to include measures of food loss as well as partnership with local government to expand data collection related to food waste and waste reduction programs

Pillar 5: **Localizes** Food **Systems**

Reduces distance between food providers and consumers; Resists dependency on remote and unaccountable corporations



Durham Region has great potential for developing a more localized food system, and already possesses significant assets in this area.

Localizing does not mean isolating a region from larger food systems. Rather, it requires increasing capacity to produce a significant proportion of the food required to feed the local population, and ensuring that this food can actually be distributed to the local population through broadly accessible means.

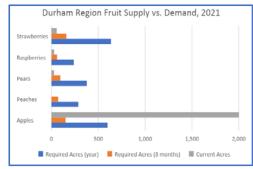
Indicator 5A

Localized Production, **Processing and Distribution**

The first indicator addresses not only agricultural capacity, but the infrastructural development in processing and distribution required to keep more produce within the region.

Production

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) uses production data from the Census of Agriculture and data for the Durham population's consumption of specific types of crop to calculate how much of



the local demand for fruit, vegetables, grains, and animal products could theoretically be met by local supply.

Processing and Distribution

Standardized tracking of the amount of food sold into local markets does not occur at the regional level, but it is known that a large proportion of grain and animal products must leave the region to be processed and packaged. Increasing local self-sufficiency requires the creation of locally-oriented processing and distribution infrastructure, along with any policy measures or programs that help farmers connect directly to local buyers with less administrative and logistical work required. Information about such efforts in Durham can be found in the region's Local Food Business Retention and Expansion project reports, and in reports on the potential development of a local food distribution hub in the region.

Mapping the local agri-food network can allow assessment of Durham's progress in this area over time. ConnectON, an online asset-mapping platform, allows local governments to upload, update, select, sort, and map their datasets for agri-food businesses. While this platform is only accessible to governments, mapping of the data uploaded to ConnectON, along with other public datasets, can be viewed by the public using an interactive map on OMAFRA's Agricultural System Portal, meaning there is great potential to produce a publicly-accessible map of Durham's local food infrastructure. However, the research found that the current mapping available on the Portal must be updated as it includes several closed or misclassified businesses.

In addition to basic mapping, consideration should be given to enhancing the map by distinguishing the points of processing, storage, and distribution that are accessible to small and mid-sized farms and will accept smaller volumes of produce. Another asset type that can keep food within the region is institutional buyers (e.g., government buildings, healthcare facilities, schools) who prioritize local food in their procurement for food service. This creates a consistent and

Agri-food network: includes the infrastructure, services, and other agri-food assets needed to deliver food to markets. Institutional local food procurement pilot projects that have occurred in Durham:

- Durham District School Board: Cafeteria Connects
- Durham Region: Serving Up Local (long-term care homes)

Recommendation:

Durham Region, in collaboration with the municipalities, should leverage ConnectON and OMAFRA's Agricultural System Portal to produce a publicly accessible map of Durham's local food infrastructure.

reliable opportunity for farmers to sell food directly in the region, at higher volumes than might be possible through farmers markets or farm stands. The research found no publicly-available accounting of the number of active local food procurement policies in Durham.

Indicator 5B

Development and Accessibility of Urban Agriculture

Urban agriculture projects can be either commercial or not-for-profit. In general, urban agriculture encourages citizens to participate in community food production and empowers citizens to be a greater part of the food system.

Urban Agriculture/Community Garden Policy

Fully accessing the benefits of urban agriculture requires policy support. While all 8 municipalities in Durham Region have established community gardens, only Oshawa, Whitby, Pickering, and Uxbridge have set

Community Garden policies.

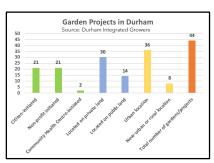
Only 1 municipality, Ajax, has an overarching urban agriculture policy in place to address other forms of urban agriculture including commercial. However, Ajax does not have a community garden policy to guide community garden development in that municipality.

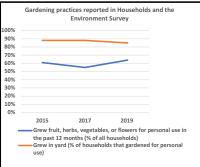
Urban Farms

Commercial urban agriculture operations increase the capacity for income-earning opportunities in addition to creating another avenue for people to participate in food production within urban and near-urban spaces.

Growing at Home

Little is known about the extent of home food gardening in Durham, but there is one partial data source that is available to the public-results of Statistics Canada's Households and the Environment Survey.





Research Opportunities

The presence of community actors with significant knowledge of urban agriculture and networks of contacts in the region could strongly support a dedicated research project to map out urban agriculture in Durham.

Recommendation:

- Working with established, regionally-focused, citizen-driven organizations, municipalities and the regional government can support a broad range of urban agriculture projects by harmonizing policies in official plans and zoning by-laws which include common definitions for diverse and evolving urban agriculture initiatives, including those which are commercial, non-profit, and home-based.
- Disseminate a regional survey on home food gardening to yield a better understanding of the level of enthusiasm for and types of home growing practices.

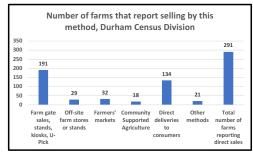
Indicator 5C

Local Food Availability and Access

This indicator considers the ease or difficulty with which consumers can find and access regionally produced food.

The Census of Agriculture publishes the number of farms that report direct sales to consumers, and the methods of sale that are used (see Table 24). However, the Census data does not indicate the locations of these farms or any detail as to what is sold.

Two public, online directories meant to help consumers find places to buy local food in Durham include:



- a web page maintained by Invest Durham (Economic Development and
- marketing association Durham Farm Fresh's website which features an interactive map showing the location of member sellers

The Census data indicates that 191 farms are engaged in on-farm retailing, compared to only 53 listed by Invest

Durham, suggesting that the latter is only a partial listing. Notably, the Census data includes farm stands while the Invest Durham directory does not. Furthermore, there is no publicly available and complete source listing the names and locations of farms directly selling their own produce.

The literature review and key informant interviews also revealed barriers for local food businesses to start up, expand, or increase services. Common barriers included:

- regulatory barriers for farm gate sales to begin or expand
- lack of support for business owners to navigate regulatory systems
- cost of approval permits for small businesses

Recommendation:

Make collaborative efforts to produce a complete directory that is regularly updated with names and locations of all farms that sell their produce directly to consumers, in person, or online

Pillar 6: **Puts Control** Locally

Places control in the hands of local food providers; Recognizes the need to inhabit and to share territories; Rejects the privatization of natural resources



"Putting control locally" includes building regional food production and distribution capacity, as discussed under Pillar 5. Pillar 6 addresses the equally important question of whether legal and political processes currently in place advance communities' right to define food and agriculture policy at the local level in their own interest.

Indicator 6A

Indigenous Food Sovereignty

The first indicator for this pillar focuses on Indigenous Food Sovereignty specifically. Indigenous control over food has been limited by:

- expulsion from important food production or harvesting lands
- ignorance and dismissal of traditional modes of production and traditional ecological knowledge in the development of Canadian agricultural policy

- separation of children from culturally appropriate food education
- limited access to traditional foods, especially in urban areas

One major food sovereignty issue in the Durham area concerns how Indigenous hunting and fishing rights have been infringed by implementation of the 1923 Williams Treaties, the subject of a 2018 settlement between Williams Treaty First Nations, Canada, and Ontario.

There is a wealth of knowledge about regional Indigenous foodways that can be made accessible to the broader public through collaborative projects. For example, the 2021 Durham Indigenous Voices panel series that was organized by local libraries and post-secondary institutions provided a platform for the Chief of Mississaugas of Scugog

Island First Nation's (MSIFN) to discuss Williams Treaty case, some of the relevant history of regional Indigenous food systems, and current efforts to make fishing waters accessible once again by purchasing lands adjacent to Lake Scugog.

During DFPC's 2021 Symposium "How Do You Measure a Food System," participants imagining a future Report Card presented a number of suggestions that can be related to this indicator.

These included:

- naming Indigenous foodways that are important to communities in the region
- naming reconciliation efforts that enable Indigenous foodways and cultural practice for communities in the region

"Indigenous food sovereignty is a specific policy approach to addressing the underlying issues impacting Indigenous peoples and our ability to respond to our own needs for healthy, culturally adapted Indigenous foods. Community mobilization and the maintenance of multimillennial cultural harvesting strategies and practices provide a basis for forming and influencing 'policy driven by practice."'- Indigenous Food Systems Network

The research identified a variety of food system assets created and controlled by Indigenous people, including:

- Indigenous programs at Carea Community Health Centre vary but have included community kitchens and gardening workshops teaching Indigenous methods of preparing and growing food.
- The Oshawa and Durham Region Métis Council (ODRMC) operates a community garden and distributes food vouchers and donated hampers to people in need of food assistance.
- Two catering companies started by Indigenous chefs in Durham, Indigenish and Indigenesis, offer Indigenous cuisine for public events or to private consumers.

Recommendation:

DFPC must continue to work with Indigenous Durham residents and community groups to develop a deeper understanding of food issues, Indigenous initiatives, and collection of metrics, if any, for Indigenous food sovereignty. DFPC must continue to work to establish a working relationship with local Indigenous government.

Indicator 6B

Participation in Democratic **Food System Governance**

This second indicator looks at opportunities for meaningful participation in municipal policy processes that influence the local food system. The extent of Durham residents' participation in civic life in general, let alone food system activity specifically, is not something that is typically quantified in public reports.

As a component of the 2013 Environmental Scan, DFPC presented two sets of recommendations for establishing food system governance processes that embody food sovereignty. The first focused on what local governments could do to commit to a food system planning agenda. The second called for more unified efforts from community organizations, and for DFPC to facilitate closer communication and collaboration. It may be possible to measure residents' participation in food

system governance if these recommendations are implemented, creating centralized forums for food system work. The list of citizen advisory committees in Durham that can be considered relevant to food sovereignty illustrates why monitoring "food system governance" as a whole is challenging in the absence of such a forum.

Citizen advisory committees in Durham relevant to food system planning identified by the DFPC Internet Asset Scan, 2021 included:

- Economic Development- Brock, Uxbridge, Scugog
- Agriculture Region of Durham, Clarington, Uxbridge
- Environment and Sustainability -Region of Durham, Brock, Oshawa, Scugog, Uxbridge, Whitby
- Climate Change Region of Durham, Uxbridge
- Tourism-Brock, Clarington, Scugog, Uxbridge
- Accessibility-Region of Durham and all 8 area municipalities
- Diversity and Inclusion or Anti-Racism-Region of Durham, Ajax,

- Clarington, Oshawa, Pickering, Whitby
- Age-friendly Committee Uxbridge
- Indigenous Relationship-Building Circle - Pickering

A commonly-expressed sentiment by DFPC research participants was that there is a need for more regular contact between government staff or politicians and those working in the food system or needing better food access in their community, so that issues can be better understood and better responded to.

As well, several respondents to the online survey conducted during the research process commented that the difficulty of understanding local government processes is a barrier to participation, and that better information resources on how citizens can get involved in governance are needed.

Recommendation:

Develop a deeper understanding of citizen engagement in political processes and consultations through surveys or by asking community organizations about the reach of their programs and local governments for data on participation in political processes and consultations. Such initiatives will benefit from more regular contact between government staff/politicians and food system actors and greater collaboration and communication among community organizations.

Pillar 7: **Builds Knowledge and Skills**

Builds on traditional knowledge; Uses research to support and pass knowledge to future generations



This pillar recognizes that achieving food sovereignty will not be possible without the creation of a food literate community. People are increasingly detached from the knowledge of where their food comes from, how it is produced, and who produces it. With less awareness of agriculture and food system issues comes less ability to democratically govern food production and distribution as food sovereignty requires. Further, cooking skills and confidence in the kitchen have declined as people with limited time or energy due to working conditions rely more on fast food or ready-made options. This can contribute to food insecurity, as preparing one's own food can save money and provide more control over nutrition.

Indicator 7A

Knowledge of Agriculture and Food Systems

Durham is fairly strong when it comes to resources for connecting the nonfarming population with agriculture. This is in large part thanks to the efforts of Durham Farm Connections, an organization that coordinates farm tours, offers educational modules for elementary and high school students, and presents informative exhibits at public events. Other resources include a series of videos produced by Durham Farm Fresh and the annual farm tour organized by the Durham Agricultural Advisory Committee. Residents can also explore urban and near-urban agricultural spaces by participating in DIG's Annual Garden

Project Tour, excursions, videos, and online resources.

Number of farms offering school tours: 9

There appear to be fewer consistently-offered resources for broader food system education. One exception is the Table Talk series that was hosted jointly by The Nourish and Develop Foundation and Durham Integrated Growers (DIG). These informational sessions cover topics related to growing food, environmental sustainability, food security, and "sustaining a healthy community that grows together."

Recommendation:

Organizations that provide educational resources and programs should collect and share data pertaining to participation and the effectiveness of initiatives.

Indicator 7B

Food Literacy and Food Skills

Definitions of "food literacy" vary, but commonly include two components: understanding of nutrition and possession of food skills. These elements together enable people to choose and prepare foods that support their individual health requirements. Food literacy can be learned informally through life

experiences or formally through the assistance of a dietitian or participation in an educational program.

Preparing Food

Informants identified the ability to prepare food at home, alongside the ability to purchase one's own food, as a fundamental requirement for food security at the individual level. It should be noted that the capacity to

prepare one's own food requires appropriate housing and amenities in addition to knowledge and skills, but this indicator focuses on the latter.

The Internet Asset Scan and conversations with relevant community actors revealed that cooking classes and other food literacy programming offered by community organizations tend to vary over time—different options may be

available in different seasons. In addition, the focus of classes, their intended audience, or their mode of delivery changes. As well, offerings continue to be impacted by the pandemic.

As with food assistance programs, improving the informational environment in this area could involve dedicating resources to create, maintain and update a central directory of available programs. The collaboration required to produce such a listing could reveal

"Food literacy encompasses a wide range of knowledge and skills related to healthy food choices, including knowing how foods are grown, and practices related to choosing, preparing and consuming food. Providing information and creating supportive environments for people to gain and use food knowledge and skills is critical in furthering the ability of Ontarians to make healthy choices throughout their lives." - Ontario Food and Nutrition Strategy, Sustain Ontario

opportunities for partnerships that increase the capacity and reach of existing programs, or new programs that meet particular communities' needs for accessible programming. Collecting and sharing data about the number of participants in different programs would also contribute to this effort.

Growing Food

Some informants included the ability to grow food-both the knowledge and skills and the access to land that this requires—as another important

dimension of having power over one's own diet. Durham's community gardens, discussed under Indicator 5B, are an important asset to education in this area. School gardens are also valuable sites of food literacy and skill development. It is unknown how many school gardens are currently active in Durham. The research also identified online food gardening resources offered by Durham organizations and local governments.

Nutrition education resources available in Durham:

- Durham Region Health Department: Healthy Eating webpage and Community Food Advisors program
- Girls Inc. and Carea Community Health Centre: prenatal nutrition classes, Mind+Body after-school program
- The Nourish and Develop Foundation and Brock Community Health Centre: Pantry Clips online healthy recipes video series, group nutrition workshops for adults

Resources to support food-growing skill development:

- Durham Health Department -Guide to School Gardens
- Durham Master Gardeners -Gardening Tips webpage
- Durham Integrated Growers (DIG) -Resources webpage
- City of Oshawa: Gardening webpage

Recommendation:

An initiative should be undertaken to create and maintain a resource of available food literacy and food skill programs and to study the various ways in which people gain food knowledge and food skills.