Journal of Agriculture, Food Systems, and Community Development
ISSN: 2152-0801 online
https://foodsystemsjournal.org

Growing pains: Successes and barriers in London, Ontario's urban agriculture strategy

Richard S. Bloomfield [a] *
Huron University College

Kassie Miedema [b]
Toronto, Canada

Deishin Lee [c]
Ivey Business School

Rebecca Ellis [d]
Mohawk College

Joe Nasr [e]
Toronto Metropolitan University

Submitted June 16, 2025 / Revised August 23 and September 15, 2025 / Accepted September 16, 2025 / Published online November 7, 2025

Citation: Bloomfield, R. S., Miedema, K., Lee, D., Ellis, R., & Nasr, J. (2025). Growing pains: Successes and barriers in London, Ontario's urban agriculture strategy. *Journal of Agriculture, Food Systems, and Community Development*, *15*(1), 155–172. https://doi.org/10.5304/jafscd.2025.151.009

Abstract

Urban agriculture (UA) is gaining momentum across Canada in light of the COVID-19 pandemic, with growing public interest and municipal responses such as the City of London, Ontario's 2017 London Urban Agriculture Strategy (LUAS). This paper examines the implementation and impact of the LUAS, drawing on interviews and

[a] * *Corresponding author:* Richard S. Bloomfield, HBA, MBA, Assistant Professor, Management and Organizational Studies, Huron University College; 1349 Western Road; London, Ontario N6G 1H3 Canada; rbloomfi@uwo.ca; https://orcid.org/0009-0003-8397-8513
Richard Bloomfield is currently a Ph.D. candidate in Geography and Environment at Western University.

[b] Kassie Miedema, MArch, MDes, independent researcher, Toronto, Ontario, Canada.

[c] Deishin Lee, PhD, Associate Professor in Operations Management and Sustainability, Ivey Business School; 1255 Western Road; London, Ontario N6G 0N1 Canada; https://orcid.org/0000-0002-6335-2877

[d] Rebecca Ellis, PhD, Professor of Environmental Sustainability, School of Liberal and Administrative Studies, Mohawk College; 135 Fennell Ave. W; Hamilton, Ontario L9C 0E5 Canada; https://orcid.org/0000-0001-9557-9390

[e] Joe Nasr, PhD, independent scholar, lecturer and consultant affiliated with Toronto Metropolitan University; 350 Victoria Street; Toronto, Ontario M5B 2K3 Canada; https://orcid.org/0000-0002-5166-5278

Disclosure Statement

Portions of this research were presented by the authors at Unconference 2—Multifunctional Spaces For Whole Communities, February 26–27, 2025. Additionally, Richard Bloomfield was a founding member of Urban Roots, one of the participating organizations, and is a former board member of the organization. Urban Roots did not benefit in any way from this research and Bloomfield has not been on the board since December of 2023.

Funding Disclosure

This research was funded by an Insight Development Grant from The Social Sciences and Humanities Research Council (SSHRC); see https://www.sshrc-crsh.gc.ca/results-resultats/recipients-recipiendaires/2023/idg-eng.aspx

workshop insights from for-profit and nonprofit urban food producers, processors, and distributors. Building on a prior study by Miedema (2019) of the city's Hamilton Road neighborhood, we analyze the strengths, weaknesses, and challenges of new and existing UA initiatives across the city. Three factors emerged as critical to UA's success: municipal governance matters, community efficacy, and the rising cost of living compounded in a post-pandemic context. We assess how London's strategy has enabled progress—such as bylaw amendments—but also where it falls short due to limited communication, persistent land access issues, jurisdictional misalignments, and a lack of proactive leadership. Our findings contribute new insight into the institutional barriers facing UA in midsized cities and identify three key knowledge and capacity gaps—leadership, technical guidance, and communication—that must be addressed to support sustained UA implementation. We offer recommendations for closing these gaps through coordinated efforts across municipal, private, and community sectors. Ultimately, this research advances the conversation on how cities can more effectively support inclusive, resilient, and culturally valued urban food systems rooted within a food justice framework.

Keywords
municipal governance, urban agriculture, urban food and agriculture strategy, urban development, community organizing, community gardens, alternative food systems

Introduction

Urban agriculture (UA) can be broadly described as the growing of plants or raising of animals in an urban or peri-urban environment. Advocates of UA claim many social, economic, and environmental benefits, including reducing the economic and environmental costs of food transportation, minimizing food waste through composting, reducing food packaging waste, improving health outcomes by adding fresh vegetables to diets, and increasing physical activity from gardening (Atlink & Hart, 2023; Kunpeuk et al, 2020; Soga et al., 2017). The social benefits of UA include increasing community cohesion through connections made at growing sites (McIvor & Hale, 2015), as well as therapeutic benefits associated with well-being and gardening (Bratman et al, 2015; Grabbe et al, 2013, van Lier et al, 2017). UA can provide opportunities for re-localization in an era of globalization (Food and Agriculture Organization of the United Nations [FAO] et al., 2022; Langemeyer et al. 2021) and improve access to healthy food for low-income residents (Colasanti & Hamm, 2010; Ilieva et al., 2022; Lawson, 2005). Research has also shown that UA can be an important part of a transition to a more sustainable and just local food system (Braswell, 2018; Galt et al., 2014; Tornaghi, 2017; Turner, 2011). Further, there have been several studies that have shown how UA can be used to improve the well-being of various demographic groups, particularly seniors, immigrants (Beckie & Bogdan, 2010), and disadvantaged youth (Allen & Wilson, 2012), and that it can increase feelings of connection and belonging within neighborhoods (Eizenberg, 2012; McIvor & Hale, 2015).

Although UA gained renewed attention during COVID-19, supporting resilience, expanding municipal home food programs, and raising equity concerns in access and participation (Das & Ramaswami, 2022; Music et al., 2022; Schoen et al., 2021), many long-standing challenges persist. These include uneven access to land (Passidomo, 2014) and impermanent UA initiatives because of inadequate funding and insufficient access to the materials, expertise, and institutional support needed to sustain them (Cohen & Reynolds, 2015). Scholars have raised concerns that UA initiatives may contribute to gentrification (Brasswell, 2018; Marshall, 2022; McClintock, 2018; Rosan, 2020), which disproportionately displaces people experiencing poverty, working-class citizens, and people of color and can perpetuate colonization in urban areas (Bradley & Herrera, 2016). Scholars have also noted that some of the environmental sustainability claims made by advocates of UA are somewhat contested (Hawes et al., 2023). While a small number of cities in North America have implemented UA policies (Rosan & Pearsall, 2017), there is a lack of scholarly literature on how these policies help or hinder UA initiatives (Beckie et al., 2013).

In Canada, municipalities have increasingly developed food action plans that incorporate UA,

beginning with Toronto (Blay-Palmer, 2009) and followed by Metro Vancouver (2011), Calgary (City of Calgary, 2012), Edmonton (City of Edmonton, 2012), and Kamloops (City of Kamloops, 2015), among others. These cases demonstrate that UA is typically framed within broader food policy agendas (Robert & Mullinix, 2018). London, Ontario, by contrast, is unique in having adopted a standalone UA strategy. The city, with a population of 422,000, faces higher-than-average rates of poverty (15% below the poverty line in 2015 compared to 13.9% for Ontario overall) and increasing development pressures on its urban and peri-urban land (City of London, 2024; MLHU, 2015). Local food justice advocates have long highlighted the need to address inequities in access to healthy food, green space, and growing opportunities, particularly in lower-income neighborhoods (Pearson, 2022). In response to this growing interest, the City of London released one of Canada's first UA strategy reports in 2017 (City of London, 2017). After the London Urban Agriculture Strategy (LUAS) report was approved by the City Council, an urban agriculture steering committee was established to direct the implementation of the strategy. As a result, a series of bylaw amendments were implemented in 2019 to support the LUAS (City of London, 2019a, 2019b, 2020, 2021). While other UA strategies exist in Canada, there is limited scholarship on the impact of municipal policies on the success rate of UA initiatives (Rosan & Pearsall, 2017), including evidence of the degree to which UA initiatives have succeeded or failed at achieving their goals (McClintock & Simpson, 2018).

This study builds on Kassie Miedema's 2015 analysis of the potential for UA in the Hamilton Road neighborhood in London, Ontario (Miedema, 2019), which is a mixed-use area with lower-than-average household incomes, higher proportions of recent immigrants, and limited access to large grocery stores. We argue that examining new and existing initiatives across the city reveals important insights into the citywide initiatives' strengths, weaknesses, and implementation challenges. Insights from interviews, our primary method of data collection, and a workshop session show three key factors as the most significant influences on UA: the role of municipal government involvement, the impact of rising living costs compounded by COVID-19, and the importance of community efficacy (i.e., working together effectively to achieve shared goals).[1]

We contend that assessing the LUAS is essential for understanding how municipal policy can help or hinder UA practitioners in transitioning toward more sustainable and just local food systems (Braswell, 2018). We highlight specific areas where the city's strategy has led to measurable progress—such as bylaw changes that expanded what food production and related activities are allowed—and where it has fallen short, including gaps in implementation. These findings reveal that while the LUAS report laid important groundwork, resulting in some policy and bylaw changes, its impact has been limited by poor communication, land access barriers, jurisdictional misalignments, and a lack of proactive, sustained leadership, highlighting the institutional and systemic challenges facing UA in midsized cities.

Finally, we identify drivers based on participant insights such as future aspirations and opportunities for UA, including powerful metaphors that emerged from our analysis of the data that can help ensure UA is culturally valued. Additionally, we present three key knowledge and capacity gaps based on participant insights—leadership, technical guidance, and communication—that must be addressed to support effective UA implementation. We offer recommendations for filling these gaps through a range of approaches, including municipal roles, partnerships with private companies, or collaborations with community organizations, to ensure UA is not only embraced culturally but also sustained institutionally. By situating UA within broader movements toward sustainable and equitable local food systems, our findings inform both local policy in London and broader discussions on UA governance in midsized cities.

[1] What we attempt to represent with the term *community efficacy* is the shared belief among members of the UA community of their collective ability to work together to achieve common goals, drawing on mutual trust, shared values, and the capacity to mobilize resources and influence decision-making in support of their UA initiatives.

Food Justice Framework

Given the complexities, and well-documented inequalities, in global food systems, a food justice framework guided this study. This perspective was informed by Gottlieb and Joshi (2010) who argued that food justice seeks to ensure that the benefits and risks of where, what, and how food is grown, produced, transported, distributed, accessed, and eaten are shared fairly. A food justice lens requires researchers and advocates to contextualize the lack of access that many people face to affordable, adequate, and culturally appropriate food within systems of oppression including, but not limited to, racism, colonialism, and economic insecurity (Aptekar, 2015). It also requires attention to the production of food, including land access and stewardship, the ability of farmers to make a livelihood, the treatment of farm workers, and the effects of agriculture on the flora and fauna of dynamic ecosystems. There is considerable scholarship that assesses the potential of UA to enhance social justice and support diverse communities across dimensions such as culture, ethnicity, socioeconomic status, age, and ability (Eizenberg, 2012; Ellis, 2017; Horst et al., 2017; White, 2011).

Methodology

This project was funded by the Social Sciences and Humanities Research Council of Canada through the Insight Development Grant program. Our methodology was informed by our position as both scholars and participants in London's UA community. Prior to beginning this research, we were involved in the local food system with prior engagement in UA policy discussions in London and were able to connect with individuals actively involved in the UA sector. Our position as co-creators embedded within the local UA system allowed us to build trust, access nuanced practitioner perspectives, and foster open dialogue that might not have been possible for outside observers. Our position also informed the design of our interviews and the collaborative format of the workshop. This research was conducted within an interpretive paradigm (Tracy, 2020), recognizing the ongoing reinterpretation of both researcher and respondent (Rose, 1997). Committed to engagement beyond the formal project period (Butcher, 2022), our team approached this work with a general bias in favor of UA's success. We aimed to acknowledge this position and remain reflexive and transparent throughout the study.

Between 2022 and 2023, the research team conducted in-depth interviews with 25 UA practitioners. In February 2024, we facilitated a workshop, using the Three Horizons Foresight framework (discussed below), with 41 UA practitioners. The workshop participants largely overlapped with the interview group, though not exclusively. Data from both the interviews and the workshop were combined for coding and analysis, forming the basis of our findings. As a part of our analysis, we used the Causal Layered Analysis method (Inayatullah, 1998), which allowed us to examine UA beyond policy, systems, and institutional structures, uncovering the underlying values, worldviews, and metaphors that influence why people participate in UA. This deeper interpretive layer aligned with our food justice framework, linking participants' experiences and aspirations to broader struggles for equity, sovereignty, and systemic change, and providing grounded insights to address our core research questions.

Interviews

In the semi-structured qualitative interviews, the research team asked questions to understand participants' experiences and motivations in UA, their perceptions of changes and challenges in London's UA landscape, the usefulness and impact of the LUAS, and their recommendations for strengthening UA in the future. As shown in Table 1, participants were from a range of organizations involved in UA: nonprofits and charities focused on food security, small businesses, community or industry groups, and municipal government. These interviews each took approximately one hour to complete and were audio-recorded. They were transcribed using transcription software and coded for themes and patterns.

Three Horizons Workshop

In 2024, we designed and facilitated a Three Horizons workshop, which is a collaborative, strategic foresight tool that empowers groups by tapping into their diverse perspectives, expertise, and lived

Table 1. Organizations that Participated in Interviews
Many participants from these organizations also participated in the workshop. Note: This list is not complete, as some participants requested their organizations not to be named.

Organization Name	Organization Structure	Founded
Hutton House	Charity	1952
Crouch Neighbourhood Resource Centre	Charity	1970
London Community Resource Centre	Charity	1974 (2002)
Glen Cairn Community Resource Centre	Charity	1987
Pillar Nonprofit Network	Nonprofit	2001
Growing Chefs! Ontario	Charity	2008
Wild Craft Permaculture	Corporation	2011
Western Fair/Wormery	Agricultural Society	2012
London Environmental Network	Charity	2015
Queer Events London	Community Group	2016
Urban Roots London	Nonprofit	2017
Urban Agriculture Steering Committee	Municipal Government	2018
Type Diabeat-It	Nonprofit	2018
Fôrij Thrills	Sole Proprietor	2019
Homegrown Society	Nonprofit	2019
Forest City Microgreens	Corporation	2020
The PATCH London	Nonprofit	2021

experiences (Sharpe, 2013). The goal of the workshop was to highlight the current realities of the London food system, co-create a shared future for it, and identify both incremental and transformative innovations needed to achieve that future.

Following Sharpe's (2013) model, the workshop activities addressed three different horizons:

- Horizon 1 represented the current reality and the identification of existing UA practices. Researchers prompted participants to identity strengths, weaknesses, opportunities and threats (SWOT) on a matrix to assess existing UA practices and to validate interview findings.
- Horizon 2 focused on exploring emerging opportunities and innovations that can drive change toward desired futures (Horizon 3). Researchers guided participants to identify existing signs of change, disruptions to the status quo, enabling behaviors, and potential barriers.
- Horizon 3 focused on envisioning and creating a just and inclusive food system by 2050. Researchers invited participants to imagine how systems, policies, values, and behaviors would be different in their vision of the future.

We used this framework to integrate a wide range of expertise. The workshop brought together 41 participants from diverse backgrounds, including community organizers, urban planners, policymakers, and environmental advocates, to collaboratively explore the current state, challenges, and future aspirations for UA within London. Our interviewee contacts were the first participants invited, and further participants were invited using a snowball sampling method. Since the participants were all UA supporters, we selected the consensus-building Three Horizons framework, and the participants' alignment with our food justice approach

is reflected in the workshop outcomes. The workshop's activities facilitated a structured yet imaginative dialogue about transitioning toward a more sustainable and equitable UA system. The workshop also provided a convening space for practitioners of UA, as this was a gap that had surfaced from our interviews.

Data collection during the workshop involved gathering participants' responses and researcher observations for systematic analysis. Participants recorded their thoughts on sticky notes in response to prompts provided by researchers and outlined above. Along with notes taken by the research team during the workshop, we synthesized all collected data through a round of thematic analysis, followed by an affinity mapping exercise. This process was used to systematically identify recurring patterns and organize them into overarching themes, which helped identify the key strengths, weaknesses, and implementation challenges related to the project.[2]

Strengths, Weaknesses, and Implementation Challenges of Urban Agriculture in London: Findings from Thematic Analysis and Affinity Mapping

Our analysis of the combined interview and workshop data addressed our central question: how municipal policies, socioeconomic conditions, and key capacities or barriers shape UA in London. These themes, grounded in participants' perspectives and our food justice lens, form the basis of the findings below. Three themes emerged most clearly: the pandemic and rising cost of living as immediate pressures, the municipal government's role as the central factor shaping UA, and the importance of community efficacy in sustaining UA initiatives. These themes represent factors that have had the largest bearing on the challenges and successes of UA in London.

The Cost of Living and the Pandemic's Impact on Urban Agriculture

The impact of the global COVID-19 pandemic emerged as a core theme, underscoring the necessity for local food systems and supply chain resilience, and revealing the fragility of global food networks (Alabi & Ngwenyama, 2023; Ehrenreich, 2020; Lubetkin, 2021; Zurayk et al., 2022). Pandemic-induced social spending as well as businesses seeking to cover losses sustained during closure meant inflation rose significantly, impacting the cost of many goods and services including food. This inflation exacerbated food insecurity and led to an increased interest in UA and local food production. Participant A noted the increase in UA, saying, "I think we've seen an explosion of people wanting to do front and backyard veggie beds, community gardens." Participant O from the London Food Bank highlighted one driver of this trend, saying, "Demand on [food donations] has gone up 92% in [the] two years [since 2021] so we need to develop food security strategies, part of which is urban agriculture." Rising food prices, particularly for local produce, strained community efforts to strengthen food security and made it difficult for organizations and individuals to purchase from local farmers. Community gardens became oversubscribed, with long wait lists, indicating a need for more support and incentives for the municipal government to expand access.

Initially during the pandemic, community development efforts were stifled. High school volunteer programs were halted, community gardens were shut down (despite their role in social cohesion and food security), and government-mandated restrictions impeded the growth of UA initiatives, including farmers' markets. Participants noted that they thought these UA initiatives should have been supported more actively during this time. Once community gardens and markets were deemed essential services and reopened, there was a surge in their demand, and Londoners have expressed their greatest interest in them to date. Overall, participants stressed the importance of adapting to increased demand for local food and addressing persistent food insecurity.

Municipal Government's Influence on Urban Agriculture

Municipal governments play a crucial role in influencing UA through various mechanisms, including

[2] A complete summary report of workshop outputs can be found on Huron University's Research website (Bloomfield et al., 2024).

policymaking, zoning regulations, land-use planning, support programs, and public engagement. Some participants in our study believed the City of London has taken a progressive approach to UA compared to many other North American cities by legitimizing UA with the LUAS report. Participant O noted this, saying, "I appreciated the city coming up with an urban agriculture strategy. It signalled that food was now on the agenda." Even so, other participants expressed dissatisfaction with the City of London's lack of implementation after publishing the report. Participant A noted that the City has "never put any funding towards the strategy. [...] There's no full-time staff, there's no funding." Taken together, these perspectives highlight that while the LUAS symbolically advanced UA in London, the absence of resources and sustained commitment has undermined its practical impact.

Participant A was not alone. Other participants noted that while the municipal government has expressed a commitment to supporting UA through their LUAS report, there has been a lack of concrete, long-term planning to support this vision. Rather, the focus has tended to be on issues that are framed as more pressing, such as housing development, despite the potential long-term benefits that proponents of UA argue it can bring, such as improving food sovereignty and lessening the environmental impacts of the food system.

In our interviews, numerous participants noted that the implementation of UA has been hindered by bureaucratic processes, unclear guidelines, and a lack of communication. For example, the centralized control over city-run community gardens has made it difficult for local community groups to build and sustain momentum when trying to establish new community gardens. Community garden organizers on private lands face challenges negotiating land and water access with landowners. Participants expressed the need for a designated city representative to actively facilitate UA projects, streamline land-access processes, and ensure transparency in land access. Participants noted that the city is working on pre-approving future sites for community gardens to help alleviate the high demand for more community garden plots.

Many participants believed that UA in London has been further constrained by the perception that it is a lower priority compared to other pressing issues bearing down on the municipal government. Historically, issues concerning agriculture and food production fall under provincial and, to a lesser extent, federal jurisdiction. Because these issues are outside of urban municipalities' jurisdictions, their importance is further diminished in the city budgeting process. Rather, city resources are frequently allocated to more visible and urgent urban needs, such as infrastructure (roads, water, transit, etc.) and housing, leaving UA initiatives underfunded and unsupported. In London, this is evident in the limited financial resources available for managing the community garden program and incentivizing new UA projects. Participants noted that the lack of investment in UA is compounded by its overlooked potential to address multiple challenges, including public health, environmental sustainability, and social equity (Bratman et al., 2015; Ilieva et al., 2022; McIvor & Hale, 2015; Tornaghi, 2017; van Lier et al., 2017). Consequently, while the City of London may be open to dialogue on UA when framed in this way, this openness has yet to translate into meaningful action. Participants expressed frustrations about this, as they recognized the untapped potential of UA to contribute to the city's broader aims.

Community Efficacy

Participants mentioned that community efficacy was a key factor for the success of UA initiatives in London. While they noted that the LUAS report served as a solid foundation for supporting UA initiatives, the report also requires more input and active participation from the community to evolve and address current needs. According to participants, the LUAS should include ongoing opportunities for community feedback. Some participants stated that by fostering more robust public engagement, the strategy could transform from a policy document into a living framework that communities could use as a reference point to ignite conversation and action around UA initiatives. Many participants remarked that by involving more voices and perspectives, especially from those actively involved in UA, the city could create a more inclusive and sustainable UA ecosystem.

Notably, participants commented that their

UA initiatives have been supported by London's business community, demonstrating the potential for strong cross-sector partnerships. For instance, a local waste management company sponsors The Wormery, an initiative that uses worms to turn organic waste into worm castings, which can then be used as fertilizer. These types of collaborations help build relationships between UA projects and the wider community, are crucial for sustaining momentum, and ensure UA initiatives have the resources they need to succeed. Participants noted challenges that hinder collaboration, such as competition for funding between small UA initiatives. By fostering partnerships and cooperation, rather than competition, the City of London could help UA initiatives thrive and expand their positive impact.

Impact of the London Urban Agriculture Strategy Report: Findings from Thematic Analysis and Affinity Mapping

In this section, we analyze the impact of the LUAS report on the city's efforts to create more sustainable and equitable local food systems. Drawing on firsthand insights from UA practitioners gathered through interviews and a workshop, we highlight how policy can empower or obstruct UA initiatives and evaluate the effectiveness of the LUAS since its implementation in 2019. In doing so, we attend closely to the critiques voiced by participants, treating their concerns as central to understanding both the limitations and possibilities of the city's approach to UA.

Poor Awareness of London's Urban Agriculture Strategy Report

Participants' awareness of the LUAS report varied, with many expressing uncertainty about its progress and current status. A third of participants were unaware of the LUAS's existence, and several others thought it was overshadowed by other priorities. As participant H noted in reference to the LUAS, "I'm involved and I don't even know about the document you just spoke about." While some noted that UA in London seems to be gaining momentum, there was a widespread sense that the LUAS's impact remains difficult to observe. Participants highlighted a need for clearer communication about "the good stuff happening" in UA, suggesting that the way information is shared needs improvement. They called for more follow-up on the LUAS's outcomes, emphasizing the importance of understanding what has been achieved and how policy should evolve.

While some of the initiatives were launched after the release of the LUAS report, several UA initiatives started before 2019, which could indicate that the momentum of community engagement prompted the development of the city's UA strategy. However, it is unclear if the city's strategy directly inspired the development of more UA initiatives (Mehta, 2017).

Systemic Land-Use Barriers to Urban Agriculture

UA in London is shaped not only by the LUAS but also by broader, systemic land-use barriers at both municipal and provincial levels. Because land-use zoning is a shared responsibility between the province and municipalities in Ontario, provincial policies, building codes, and land-use classifications lack integration with one another and with municipal-level UA priorities. These jurisdictional inconsistencies complicate the city's ability to establish a clear process for approving new UA proposals, and often lead to practitioners finding creative methods for circumventing policy. Participants spoke about provincial pressures for urban density versus suburban sprawl, causing tension between the city's demand for housing and the need to protect land for agricultural purposes (Doucet, 2023; Rocca, 2023). In some cases, municipal zoning bylaws have created obstacles for UA practitioners, since UA does not neatly fit into existing categories, such as industrial zoning. Participants also spoke about issues such as soil contamination in high-density urban areas, questioning who would be liable for potential health impacts and who would bear the costs of soil remediation. As participant C mentioned, "there are a lot of projects ongoing where … they don't bother testing, but I'm pretty sure some of those sites are contaminated."

Participants expressed concerns that the Ontario Building Code (OBC) does not accommodate new UA building typologies and definitions

such as vertical farming structures or indoor farms. As participant L mentioned when discussing how he started a small-scale vertical farm, "I think one of the biggest issues … is zoning. … They didn't even know how to classify us." The ambiguous definitions within the code—for instance, what qualifies as a "greenhouse"—create further challenges. Participant F noted, "The regulations around greenhouses are ridiculous. Building code is horrible. It still needs to be fixed, but that's a provincial thing." The limitations of the OBC have made it difficult for urban farmers and developers to obtain permits, design appropriate structures, and ensure compliance.

Not having a clear process for new UA initiatives has meant that each project is unique, making replicability difficult and confusing for those new to UA. Participant B explained, "We've had promises that things wouldn't need permits, and then a new person comes in. So being able to have the strategy to point towards and say, 'this is in here,' that's been useful." This confusion has left UA project leaders caught up in bureaucratic and legal grey areas, with little precedent to follow.

Access to land remains another significant barrier for UA. Many participants noted that both public and private lands lacked dedicated policies for urban food production, making it difficult for practitioners to secure long-term access. Permission to use land could often be revoked without warning, and transparency around land access—particularly on publicly owned land—was limited. Participant V explained,

> Just a couple weeks ago we got an email from the city saying that they were doing a big water project through the field so they're basically ripping up half the garden. … We had no control over the land.

Private land access was expressed as similarly challenging; landowners and developers are often hesitant to permit UA initiatives due to liability concerns about property damage and theft. When describing the most significant barriers of UA in London, participant P mentioned "land access and support for people who are interested in growing food in their community, [as well as] funding and tools, [because] it takes a lot of time and effort to get a growing operation off the ground." Furthermore, participant Q described the land precarity many UA practitioners face on private lands: "The higher-ups at the church that donate the land don't see the value of urban agriculture in the same lens that our organization would. They've kind of offhandedly mentioned, 'Well, we don't have to have a garden here.'"

Implementation of London's Urban Agriculture Strategy Report

While challenges related to land-use, access, zoning, and building codes persist, the LUAS report has laid a foundation for action. Our study reveals that UA practitioners have experienced a combination of progress and limitations for new initiatives in London. On the positive side, the LUAS has driven meaningful change through the leadership of the UA Steering Committee. The committee consists of members of the public and practitioners of UA who provide recommendations to the municipal council for consideration. The committee has supported programs, such as Harvest Bucks,[3] and integrated UA into planning documents, making London a leader in formalizing UA. As participant E noted, London incorporated UA into its Official City Plan as part of its goal "for creating a city that's urban agriculture–friendly—no other city in Canada at that time had something like that written into their plan."

The LUAS report led to key policy and bylaw adaptations supporting UA, but some participants noted ongoing challenges from competing views such as the confinement of animals in urban settings infringing on animal rights versus urban livestock as integral to local food systems. These tensions are highlighted by inconsistent bylaws on keeping bees, chickens, and other animals, reflecting broader disagreements over acceptable UA practices (Stacey, 2017). Despite these hurdles, changes in bylaws now allow urban growers to sell

[3] Harvest Bucks (Middlesex-London Health Unit, n.d.) is a program run by the Middlesex-London Health Unit and is designed to increase access to and awareness of local community-based food programming.

their produce directly to consumers (City of London, 2020; Stacey, 2019). Urban growers are now permitted to sell produce from their backyards up to 20 times a year (a frequency which aligned with existing regulations regarding garage sales), and they can sell it in certain public spaces and directly in front of grocery stores (City of London, 2019a). The LUAS has allowed some experimental projects, such as the Urban Roots farm, to transition from one-time exemptions to a more formalized structure for selling produce on the farm (City of London, 2019b). Following these previously mentioned amendments, in 2021, the city changed a bylaw to permit the construction of greenhouses and shipping containers (City of London, 2021). Steps like allowing backyard produce sales, enabling "farm gate sales," and allowing the construction of season-extending structures demonstrate the tangible progress driven by the LUAS report.

However, a significant barrier that the LUAS does not address is funding for UA initiatives. Participant L elaborated saying, "There are lots of grants out there, but they're not always easy to access. … Sometimes it's better to just go to a bank. … [The grant application process] is so time-consuming." Participant G explained that grant funding for smaller urban agricultural initiatives is "really limited and it's really project based." These reflections highlight that grants are often unsustainable and unreliable for long-term financial stability, particularly for smaller initiatives.

A central challenge facing the implementation of the LUAS is the city's predominantly passive approach. This passivity manifests in several key limitations, including the lack of dedicated municipal staff to provide clarity and guidance. This reactionary approach is reliant on community demands and burdensome grant processes that favor larger organizations. These issues hinder effective implementation and limit the LUAS's potential to support a thriving, equitable, and sustainable UA system. Participant C observed that the LUAS lacks cohesion and clear direction, stating, "There's been more projects, but it's a lot more talk than action. … Everyone's kind of pushing their own agenda forward and not necessarily actively working together in a true collaborative form." Participant A confirmed that UA in London is "decentralized—people are just doing these projects because they want to. Some have better capacity and longevity than others." Other concerns were raised about UA maintaining its momentum. Participant N commented,

> I was kind of hoping that we could have moved past the strategy to more action. I don't think that we've made a ton of progress moving past it. … It feels to me like it's been kind of stalled.

These concerns further underscore the need for the city to adopt a more proactive and collaborative role moving forward. Despite these challenges, the LUAS has offered foundational guidance and demonstrated its potential to integrate UA into the fabric of London.

Drivers of Urban Agriculture in London: Findings from Casual Layered Analysis

UA in London has been driven by a mix of cultural values, personal motivations, and future-oriented aspirations. Drawing on interviews and a workshop, our causal layered analysis explores how everyday experiences intersect with deeper beliefs and institutional arrangements. In this section we synthesize these findings: first we examine cultural dimensions that condition how UA is perceived and practiced; next, we consider the motivations that have sustained participation; finally, we outline future directions identified by participants to strengthen UA across the city.

Cultural Aspects of Urban Agriculture

UA and food closely intersect with culture and diversity in London, which presents opportunities and challenges for fostering inclusivity and food security. Participants highlighted the potential for UA to serve as a connector, enabling access for underrepresented groups, such as BIPOC and queer communities, while also addressing the right to culturally relevant food. For example, participant M said, "When you have folks who are immigrants from different cultural communities, they may not necessarily be familiar with some of these products. … The first time Urban Roots brought a kohlrabi over, it was like, what is this? How do I

cook with this?" Food for Queers is one such community organization that works to provide barrier-free access to food and other essential items to the 2SLGBTQIA+ community. UA in London still has significant challenges for marginalized individuals, including limited awareness of resources, language barriers, and cultural hurdles, even though many initiatives in our study are working to improve food access to diverse audiences. Culturally competent training, multilingual outreach, and inclusive education around food security are critical to filling these gaps. Additionally, people working in UA could prioritize dignity and choice in ways that offer communities access to their preferred foods and resources. Participant T explained the importance of empowerment in addressing food security, stating that "food security has to come with food independence and people need to have assistance in developing their own food security journey." To achieve this, stronger, multilingual marketing, advocacy, and outreach are essential for reaching diverse groups and ensuring equitable participation in UA initiatives.

Knowledge sharing and memory also play a crucial role in the cultural dimensions of UA. They can help connect people from different generations and communities, preserve traditional practices, and strengthen community identity and resilience. Participants emphasized the importance of mentorship programs in schools and libraries to pass on traditional and small-scale agricultural knowledge, and to create spaces for knowledge holders to share skills like food preservation and gardening techniques. Participant T went on to emphasize that "learning about food is essential, you know, just as essential as math." Recovering and retaining lost knowledge is vital to sustaining long-term engagement and avoiding the risk of "short memories," particularly where interest in UA wanes due to limited institutional support or municipal attention. Programs that celebrate and preserve cultural food practices, while fostering intergenerational and cross-cultural connections, can make UA not only a tool for sustainability but also a vibrant expression of cultural heritage and diversity.

UA is deeply intertwined with cultural values and perceptions, which affect its adoption, its reception, and ultimately, its success. In many Western contexts, there is a deeply embedded preference for order, cleanliness, and aesthetic uniformity in public and private spaces—an outlook that often favors manicured lawns, ornamental plantings, and chemically maintained landscapes (Pollan, 1991). These values can conflict with the ecological and improvisational aesthetics that are often associated with UA, which may appear messy or unkempt by conventional standards. As participant K described, a community garden

> usually looks, honestly, a little bit ratty. Community gardens are usually like a vegetable garden with pails, paper, rakes, and stuff laying everywhere. But as soon as you educate people as to why you're doing it. … It's incredibly well received after.

Participant K's comment reflects widespread Western ideals of landscape management that are founded in the desire for control over nature. In contrast, the visual disorder of many UA spaces—often a result of limited resources, diverse planting styles, or community-led design—may be misinterpreted as neglect or disorder. Public attitudes around aesthetics and land use can change, as participants shared experiences of challenging conventional standards of "garden beauty" to make room for more inclusive and sustainable practices.

The tension between rural and urban agriculture is similarly rooted in contrasting cultural perceptions and practices. Rural areas are traditionally associated with large-scale food production, where farming practices are driven by economies of scale. London is in Middlesex County, which is known for having many large-scale industrial farms. Participants noted that food production in rural areas tends to be driven by economic considerations rather than issues like food security, which are often prioritized in urban areas. This divide can be particularly challenging for addressing the growing desire for more localized food systems. Some participants recognized that UA and "big ag" are both required to create a more resilient and diverse food system, helping to bridge the gap between the scale of food consumption in urban centers and food production in rural areas.

In addition to the rural–urban divide, the pref-

erence for local versus international food production also creates tension amongst food producers. Participants noted that relying on local produce, while reducing food miles, can provide the same quality, abundance, and flavors as international choices. Shifting toward locally grown food can also support broader sustainability objectives by significantly reducing the negative environmental impacts of long-distance food transportation, such as high fossil fuel use, greenhouse gas emissions, and increased food spoilage. However, a comparison of the carbon footprints of urban and conventional agriculture is somewhat contested among experts (Hawes et al., 2024). Consumer attitudes further complicate this shift toward local food, since some consumers still find small-scale UA to be too niche—too inconvenient or expensive—even though our participants observed that there is a growing demand for local produce. The tension between local and international food production is further exacerbated by the dominance of large-scale producers that often have more influence over public policies and procurement decisions of grocers.

Motivations for Participating in Urban Agriculture

Participants shared several reasons for engaging in UA, including community building, environmental stewardship, education, and personal fulfilment. Many participants emphasized how UA brings people together through activities like food sharing, foraging, and gardening in places like front yards and community gardens. Participants noted that they also value UA for its ability promote land stewardship and educate others—especially children—about where food comes from and how it is grown. Many participants expressed joy in seeing kids involved in UA, as it provides hands-on learning experiences and cultivates a deeper understanding of food systems. Some participants noted other economic and social benefits of UA, such as creating jobs and educational programs. While UA can serve as a tool for empowerment and cohesion (Beckie et al., 2013), some participants remarked that the focus often remains on individuals growing their own food—a practice fraught with barriers, such as lack of land, resources, or time. Additional concerns were raised about the language used to describe UA. Terms like "governance" can feel alienating or overly bureaucratic and detract from the joy and simplicity of gardening. Participants suggested that reframing UA around joy and community might better resonate with people.

Participants shared other motivations for engaging in UA, such as fostering sustainability and resilience. A recurring theme in the workshop was the interconnectedness of food with broader systems like community, energy, and water. Many emphasized how UA strengthens social resilience by fostering local food systems, building community relationships, and reducing reliance on global food networks. Grassroots sustainability strategies were viewed as vital for addressing challenges like climate change, with participants advocating for ecological principles over industrial practices. Efforts like reducing food waste through vermiculture and creating naturalized spaces for native pollinators showcased practical steps toward ecological stewardship.

Though somewhat aligned in their observations noted above, participants expressed differing opinions regarding their motivations for participating in UA. While local food was celebrated for its community benefits, participants remarked that it is not always environmentally superior, highlighting a need for nuanced approaches. Similarly, composting and food waste reduction strategies were discussed as sometimes being ineffective at addressing systemic behaviours. Barriers, such as limited cold storage and the complexity of agriculture, also posed challenges, especially in scaling UA for resilience. These contradictions reveal the balance that participants seek between immediate action and long-term sustainability. UA's ability to connect social, ecological, and systemic goals underscores its potential, even as participants navigate the challenges of fostering meaningful and sustainable changes in food systems.

In identifying key motivations for engaging in UA, participants also highlighted autonomy and collaboration as contributing to its broader impact. Autonomy was often linked to food security, emphasizing the importance of achieving food independence to build resilient systems. Participants envisioned UA as a potential source of entrepre-

neurship, suggesting that selling produce could be more accessible if land ownership was not a requirement. They also saw possibilities for transportation equity through initiatives like resource-center markets, as well as future innovations, such as household hydroponics to increase self-sufficiency.

Collaboration was another recurring value, with participants stressing the need for stronger partnerships and public support. Building relationships between organizations, the city, and equity-seeking groups was identified as crucial for long-term success. Efforts like partnering with the Middlesex London Food Policy Council to develop holistic strategies and create opportunities to share resources—land, work, and produce—were highlighted. Small organizations, however, face logistical challenges, such as storage and distribution, and participants noted a desire to foster more localized markets, such as resource centers, to address these gaps. Participants also mentioned the importance of reducing duplication among UA organizations and increasing structured collaboration to rely less on volunteers. They identified key strategies such as spreading awareness through conversations, motivating participation, and facilitating UA practitioner meetings to strengthen community partnerships and drive collective impact. Together, autonomy and collaboration reflect UA's potential to empower individuals, while fostering interconnected and resilient food systems.

Future Directions

Part of the Three Horizons Framework involves thinking about the future. During the interviews, we asked participants what challenges lay ahead for UA in the next 5 to 10 years, and when we convened the workshop, we took this one step further, asking them to envision ideal futures for 2050.

From these short- and long-term visions of the future, our research team identified three main themes. The first theme, food as a collective responsibility and fundamental human right, included ideas about publicly funded food education, food as medicine, and adaptable systems that promote food sovereignty. The second theme, ecological care, emphasized reversing climate change, establishing stewardship of land and water resources, and integrating UA into city landscapes in service of healing the connection between humans and nature. The third theme, equity and collaboration, called for integrating Indigenous knowledge, addressing systemic inequities, and empowering communities through robust local food infrastructure.

Ideal visions remain aspirational without strategies for how to achieve them. Participants articulated that bridging current practices and beliefs to these visions must involve prioritizing education, awareness, and community engagement, supported by better coordination among practitioners and localized governance. Participants also highlighted the need for long-term policy and planning, mechanisms for government accountability, developer incentivization to support UA, and sustained funding for UA initiatives. Differing opinions arose amongst participants between the need to pursue quick wins (i.e., low-effort, high-impact actions that can be implemented rapidly to demonstrate progress and build momentum toward longer-term goals) versus large-scale paradigm shifts (i.e., fundamental changes in underlying beliefs, systems, or structures). Differences amongst participants about their goals and values reflect broader societal debates around prioritizing self-sufficiency versus collective responsibility; emphasizing sustainability, equity, and community well-being versus short-term profit; and addressing climate change versus achieving short-term environmental goals.

Discussion: From Visions to Actions

Across the diverse insights shared by participants, a common underlying belief emerged: that UA is a pathway to greater resilience, which is often a key motivation for involvement. While this belief was widely shared, participants expressed their visions of resilience in markedly different ways—some emphasized individual self-sufficiency; others highlighted collective and community-based approaches. We acknowledge that our participant sample is not fully representative of the broader London population, but rather, it reflects a self-selected group of individuals who are already strongly invested in, or supportive of, UA. For these individuals, UA is often seen as a form of self-expression, shaped by both individual and col-

lective motivations. Whether motivated by climate change mitigation and adaptation, food insecurity, or the desire for social connection, many of our examples show how participants believe UA could, and often does, contribute to a more resilient future, individually and collectively.

It is therefore worth considering what this more resilient future looks like, and who or what it includes or excludes. Participating in UA enhances personal resilience, which can instil a tangible, empowering sense of self-reliance for practitioners. Yet, we have also shown how systemic inequalities can undermine this resilience in significant ways. While initiatives like raised beds or community gardens may improve accessibility for some people, they often fail to address deeper systemic barriers that limit participation. Access to arable land is often unequal, particularly in urban areas where low-income neighborhoods are considered "food deserts" and lack space or resources to grow food. A garden often depends on inputs from external systems, such as water. Access to clean water is crucial for growing, and it is sometimes a major issue for negotiating access on public or shared lands, or for individuals facing increasing utility costs. Growing a garden also evades other systemic inequalities, such as wage exploitation, lack of access to healthcare, or precarious employment. As participant U explained, "we have a community that deeply undervalues the work it takes to get food to people. Here, it is something that ought to be cheap, fast, easy, and prepared." In some cases, time spent gardening may compete with other economic or caregiving responsibilities, particularly for marginalized groups with fewer resources. While gardening can boost personal agency and well-being for an individual, a more widespread, societal-level resilience often requires collective action and systemic changes. Unlocking the more far-reaching resilience that UA promises—beyond isolated individual efforts—also requires advocating for bigger systemic changes.

Competing priorities for how land within cities is and should be used is another challenge. Many participants suggested the need to prioritize urban densification to address the housing crisis in rapidly growing cities such as London, or to prioritize UA to promote food security, community building, and sustainability. We argue that there should be a balanced and integrated approach that responds to London's unique context of existing urban density and infrastructure, arable land availability, and long-term city planning. The densification versus UA debate is less about choosing one over the other, and more about finding synergies to create cities that serve both people and the planet. A more in-depth exploration of this challenge deserves greater attention, but it is beyond the scope of this research project. Our research team will, however, investigate how to support housing growth while protecting valuable urban-adjacent farmland in a forthcoming study titled "Farmers in Urbanizing Municipalities: Understanding Land-Use Pressures on Agri-Food Production in Southwestern Ontario."

Recommendations

Our recommendations emerged from recurring themes identified in interviews and a visioning workshop with UA participants, supported by document analysis of the LUAS and related municipal planning materials. Revitalizing the now largely inactive UA Steering Committee could provide much-needed leadership, foster cross-sector collaboration, and align UA initiatives with municipal policies and resources, ensuring that UA is both culturally embraced and institutionally sustained. There are many motivations and drivers for UA that can be leveraged to create meaningful, lasting change, and deep-rooted beliefs about resilience offer powerful metaphors for communicating the value of UA and building momentum. However, cultural support alone is not enough—formal structures are needed to turn ideas into action.

Another way to strengthen institutional support for UA is by establishing dedicated roles that provide oversight, coordination, and continuity between policy and practice. Many participants in the interviews and visioning workshop emphasized the need for a dedicated municipal role for UA—comparable to existing positions like health inspectors or building inspectors. They highlighted a disconnect between the City's 2017 LUAS report and current UA activities, noting that many questions remain unanswered. While a municipal position was frequently recommended to bridge this gap,

the wide range of suggestions from participants indicates that a single role would not be sufficient. Instead, there are three key knowledge and capacity gaps that must be addressed to support effective UA implementation—whether through municipal staffing, partnerships with private companies, or collaborations with community organizations:

1. Policy interpretation and integration expertise is needed to translate the UA strategy into actionable bylaws and policies within the city's decision-making structures. This would help ensure that policy changes are timely, coordinated, and responsive to community needs.
2. Technical expertise is needed in food production, including soil testing and remediation, growing techniques, training, and food safety compliance. This could be fulfilled through municipal support or contracted services, such as private labs or agricultural consultants, and would help standardize safe, sustainable practices across UA.
3. Community liaison capacity must grow in order to improve communication, translate materials into multiple languages, and share consistent information about UA opportunities, bylaw changes, and new city initiatives. This function would strengthen trust, improve accessibility, and ensure UA initiatives are inclusive and equitable.

UA is not merely a supplementary land use. It is essential infrastructure for building resilient, inclusive, and food-secure cities. To turn commitments into tangible change, policymakers must embed UA into core planning frameworks, ensure land access through regulatory and tenure innovations, and recognize urban growers as legitimate stakeholders in shaping the city's future. Integrating UA with housing, environmental, and equity goals is not only possible; it is imperative.

Acknowledgments

We are continuously inspired by the practitioners of UA, and grateful to those who were able to take time out of their busy schedules to speak with us for this project. Thank you to our entire research team including Thomas Changarathil who helped design and facilitate the workshop, as well as the research assistants who helped facilitate the workshop. We are also grateful to Katie Oates for her thoughtful edits on an earlier draft version of this paper and to the blind reviewers for invaluable feedback on the paper.

References

Alabi, M. O., & Ngwenyama, O. (2023). Food security and disruptions of the global food supply chains during COVID-19: Building smarter food supply chains for post COVID-19 era. *British Food Journal, 125*(1), 167–185. https://doi.org/10.1108/BFJ-03-2021-0333

Allen, W., & Wilson, C. (2012). *The good food revolution: Growing healthy food, people, and communities*. Gotham.

Aptekar, S. (2015). Visions of public space: Reproducing and resisting social hierarchies in a community garden. *Sociological Forum,* 30(1), 209–227. https://doi.org/10.1111/socf.12152

Atlink, H., & Hart, T. (2023, October 11). *Feeding the community: Urban farming in Johannesburg*. Human Sciences Research Council, Cape Town, South Africa. https://hsrc.ac.za/news/latest-news/feeding-the-community-urban-farming-in-johannesburg/

Beckie, M., & Bogdan, E. (2010). Planting roots: Urban agriculture for senior immigrants. *Journal of Agriculture, Food Systems, and Community Development*, *1*(2), 77–89. https://doi.org/10.5304/jafscd.2010.012.004

Beckie, M. A., Hanson, L., & Schrader, D. (2013). Farms or freeways? Citizen engagement and municipal governance in Edmonton's food and agriculture strategy development. *Journal of Agriculture, Food Systems, and Community Development*, *4*(1), 15–31. https://doi.org/10.5304/jafscd.2013.041.004

Blay-Palmer, A. (2009). The Canadian pioneer: The genesis of urban food policy in Toronto. *International Planning Studies*, *14*(4), 401–416. https://doi.org/10.1080/13563471003642837

Bloomfield, R., Ellis, B., Lee, D., Miedema, K., Nasr, J., & Changarathil, T. (2024). *Urban Agriculture Workshop summary report*. Huron University. https://www.huronresearch.ca/wp-content/uploads/2025/05/Urban-Agriculture-Workshop-Report-2024.pdf

Bradley, K., & Herrera, H. (2016). Decolonizing food justice: Naming, resisting, and researching colonizing forces in the movement. *Antipode, 48*(1), 97–114. https://doi.org/10.1111/anti.12165

Braswell, T. H. (2018). Fresh food, new faces: Community gardening as ecological gentrification in St. Louis, Missouri. *Agriculture and Human Values*, *35*, 809–822. https://doi.org/10.1007/s10460-018-9875-3

Bratman, G. N., Daily, G. C., Levy, B. J., & Gross, J. J. (2015). The benefits of nature experience: Improved affect and cognition. *Landscape and Urban Planning*, *138*, 41–50. https://doi.org/10.1016/j.landurbplan.2015.02.005

Butcher, M. (2022). Qualitative research methods I: Emotionally engaged approaches to working with vulnerable participants. *Progress in Human Geography*, *46*(3), 907–914. https://doi.org/10.1177/03091325221083212

CBC News. (2024, March 10). After 5 years, Oneida still has no clean water. Why a class action settlement could be a 'relief.' https://www.cbc.ca/news/canada/london/first-nation-clean-drinking-water-settlement-1.7137450

City of Calgary. (2012). *CalgaryEATS! A food system assessment and action plan for Calgary*. https://www.calgary.ca/environment/policies/food-action-plan.html

City of Edmonton. (2012). *Fresh: Edmonton's food & urban agriculture strategy*. https://www.edmonton.ca/public-files/assets/document?path=FRESH_October_2012.pdf

City of Kamloops. (2015). *Food and urban agriculture plan*. https://www.kamloops.ca/city-hall/strategies-plans/food-urban-agriculture-plan

City of London. (2017). *London urban agriculture strategy*. https://assets.nationbuilder.com/londonenvironmentalnetwork/pages/1364/attachments/original/1606510759/2017-Nov-UAS-Final.pdf?1606510759

City of London. (2019a, November 18). *Allowing "farm gate sales" on lands within the urban growth boundary* (File: Z-9060). Planning and Environment Committee report. https://pub-london.escribemeetings.com/filestream.ashx?DocumentId=68786

City of London. (2019b, December 2). *Report to Planning and Environment Committee – 21 Norlan Avenue* (File: Z-9111). https://pub-london.escribemeetings.com/filestream.ashx?DocumentId=69311

City of London. (2020, July 15). *Report to Planning and Environment Committee: Z-9166 – Amend Section 4.11 - Household Sales in Zoning By-law Z-1*. https://london.ca/sites/default/files/2020-11/Z-9166-PC-Report-July-15-2020.pdf

City of London. (2021, November 22). *Encouraging the growing of food in the urban areas: London Plan and zoning by-law amendment* (Report No. OZ-9332). Planning and Environment Committee. https://london.ca/sites/default/files/2021-11/2021-11-22-PEC%20Report-Grow-Food-Urban-Areas-AODA.pdf

City of London. (2024, June 10). *Our city: Planning for growth and change*. City of London. https://london.ca/sites/default/files/2024-09/The%20London%20Plan%20-%20Our%20City%20%28July%202024%29.pdf

Cohen, N., & Reynolds, K. (2015). Resource needs for a socially just and sustainable urban agriculture system: Lessons from New York City. *Renewable Agriculture and Food Systems, 30*(1), 103–114. https://doi.org/10.1017/S1742170514000210

Das, K., & Ramaswami, A. (2022). Who gardens and how in urban USA: Informing social equity in urban agriculture action plans. *Frontiers in Sustainable Food Systems*, *6*, Article 923079. https://doi.org/10.3389/fsufs.2022.923079

Doucet, B. (2023, September 21). Doug Ford reverses Greenbelt plans: Construction would never have provided affordable housing. *The Conversation*. http://theconversation.com/doug-ford-reverses-greenbelt-plans-construction-would-never-have-provided-affordable-housing-214138

Ehrenreich, B. (2020, November 4). How do you know when society is about to fall apart? *The New York Times Magazine*. https://www.nytimes.com/2020/11/04/magazine/societal-collapse.html

Eizenberg, E. (2012). Actually existing commons: Three moments of space of community gardens in New York City. *Antipode, 44*(3), 764–782. https://doi.org/10.1111/j.1467-8330.2011.00892.x

Ellis, R. (2017). Engaging diverse communities through community gardening. *Sustain Ontario*. https://sustainontario.com/custom/uploads/2017/06/Engaging-Diverse-Communities-Through-Community-Gardening-Research-2017.pdf

Food and Agriculture Organization of the United Nations [FAO], Rikolto, & RUAF. (2022). *Urban and peri-urban agriculture sourcebook: From production to food systems*. https://doi.org/10.4060/cb9722en

Galt, R. E., Gray, L. C., & Hurley, P. (2014). Subversive and interstitial food spaces: Transforming selves, societies, and society-environment relations through urban agriculture and foraging. *Local Environment*, *19*(2), 133–146. https://doi.org/10.1080/13549839.2013.832554

Gottlieb, R., & Joshi, A. (2010). *Food justice.* MIT Press. https://doi.org/10.7551/mitpress/7826.001.0001

Grabbe, L., Ball, J., & Goldstein, A. (2013). Gardening for the mental well-being of homeless women. *Journal of Holistic Nursing*, *31*(4), 258–266. https://doi.org/10.1177/0898010113488244

Grove, The. (2024, December 5). Leading agri-business community at The Grove. https://www.thegrovewfd.com

Middlesex-London Health Unit. (n.d.). *Harvest Bucks*. Retrieved May 6, 2025, from https://www.healthunit.com/harvest-bucks

Hawes, J. K., Goldstein, B. P., Newell, J. P., Dorr, E., Caputo, S., Fox-Kämper, R., Grard, B., Ilieva, R. T., Fargue-Lelièvre, A., Poniży, L., Schoen, V., Specht, K., & Cohen, N. (2024). Comparing the carbon footprints of urban and conventional agriculture. *Nature Cities, 1*, 164–173. https://doi.org/10.1038/s44284-023-00023-3

Hopkins, R. (2008). *The transition handbook: From oil dependency to local resilience*. Chelsea Green.

Horst, M., McClintock, N., & Hoey, L. (2017). The intersection of planning, urban agriculture, and food justice: A review of the literature. *Journal of the American Planning Association*, *83*(3), 277–295. https://doi.org/10.1080/01944363.2017.1322914

Ilieva, R. T., Cohen, N., Israel, M., Specht, K., Fox-Kämper, R., Fargue-Lelièvre, A., Poniży, L., Schoen, V., Caputo, S., Kirby, C. K., Goldstein, B., Newell, J. P., & Blythe, C. (2022). The socio-cultural benefits of urban agriculture: A review of the literature. *Land, 11*(5), Article 622. https://doi.org/10.3390/land11050622

Inayatullah, S. (1998). Causal layered analysis: Poststructuralism as method. *Futures*, *30*(8), 815–829. https://doi.org/10.1016/S0016-3287(98)00086-X

Kunpeuk, W., Spence, W., Phulkerd, S., Suphanchaimat, R., & Pitayarangsarit, S. (2020). The impact of gardening on nutrition and physical health outcomes: A systematic review and meta-analysis. *Health Promotion International*, *35*(2), 397–408. https://doi.org/10.1093/heapro/daz027

Langemeyer, J., Madrid-Lopez, C., Beltran, A. M., & Mendez, G. V. (2021). Urban agriculture—A necessary pathway towards urban resilience and global sustainability? *Landscape and Urban Planning*, *210*, Article 104055. https://doi.org/10.1016/j.landurbplan.2021.104055

Lawson, L. (2005). *City bountiful: A century of community gardening in America.* University of California Press. https://doi.org/10.1525/9780520931558

Lubetkin, M. (2021, December 16). 2021 revealed the fragility of food systems. *IPS News Agency*. https://www.ipsnews.net/2021/12/2021-revealed-fragility-food-systems/?utm_source=rss&utm_medium=rss&utm_campaign=2021-revealed-fragility-food-systems

Marshall, M. (2022). Change is inevitable, but is gentrification? [Book review]. *Journal of Agriculture, Food Systems, and Community Development*, *11*(3), 295–296. https://doi.org/10.5304/jafscd.2022.113.015

McClintock, N. (2018). Cultivating (a) sustainability capital: Urban agriculture, ecogentrification, and the uneven valorization of social reproduction. *Annals of the American Association of Geographers, 108*, 579–590. https://doi.org/10.1080/24694452.2017.1365582

McClintock, N., & Simpson, M. (2018). Stacking functions: Identifying motivational frames guiding urban agriculture organizations and businesses in the United States and Canada. *Agriculture and Human Values*, *35*, 19–39. https://doi.org/10.1007/s10460-017-9784-x

McIvor, D. W., & Hale, J. (2015). Urban agriculture and the prospects for deep democracy. *Agriculture and Human Values*, *32*, 727–741. https://doi.org/10.1007/s10460-015-9588-9

Mehta, S. (2017, June 25). City's urban agriculture policy anticipated as boon to movement. *The London Free Press*. https://lfpress.com/2017/06/25/citys-urban-agriculture-policy-anticipated-as-boon-to-movement

Metro Vancouver. (2011). *Regional food system strategy*. https://metrovancouver.org/services/regional-planning/Documents/regional-food-system-strategy.pdf

Middlesex-London Health Unit [MLHU]. (2015). *Figure 2.3.5: Poverty in selected sub-groups* [Table]. Middlesex-London Community Health Status Resource. https://communityhealthstats.healthunit.com/chart/income/figure-235-poverty-selected-sub-groups

Miedema, K. (2019). Grow small, think big: Designing a local food system for London, Ontario. *URBAN DESIGN International*, *24*, 142–155. https://doi.org/10.1057/s41289-019-00095-5

Music, J., Mullins, L., Charlebois, S., Large, C., & Mayhew, K. (2022). Seeds and the city: A review of municipal home food gardening programs in Canada in response to the COVID-19 pandemic. *Humanities and Social Sciences Communications*, *9*, Article 405. https://doi.org/10.1057/s41599-022-01301-6

Passidomo, C. (2014). Whose right to (farm) the city? Race and food justice activism in post-Katrina New Orleans. *Agriculture and Human Values, 31*, 385–396. https://doi.org/10.1007/s10460-014-9490-x

Pearson, G. (2022, August 22). Pearson: Urban agriculture could transform our city and our relationship to food. *The London Free Press*. https://lfpress.com/opinion/columnists/pearson-urban-agriculture-could-transform-our-city-and-our-relationship-to-food

Pollan, M. (1991). *Second nature: A gardener's education*. Atlantic Monthly Press.

Robert, N., & Mullinix, K. (2018). Municipal policy enabling regional food systems in British Columbia, Canada: Assessing focal areas and gaps. *Journal of Agriculture, Food Systems, and Community Development*, *8*(Suppl. 2), 115–132. https://doi.org/10.5304/jafscd.2018.08B.003

Rocca, R. (2023, September 21). 'It was a mistake': Doug Ford says government will reverse Greenbelt land swap decision. *Global News*. https://globalnews.ca/news/9977003/doug-ford-reverses-greenbelt-land-swap/

Rosan, C. D. (2020). Making urban agriculture an intentional, equitable city redevelopment strategy. *Frontiers in Sustainable Food Systems*, *4*, Article 74. https://doi.org/10.3389/fsufs.2020.00074

Rosan, C. D., & Pearsall, H. (2017). *Growing a sustainable city? The question of urban agriculture*. University of Toronto Press. https://doi.org/10.3138/9781442624207

Rose, G. (1997). Situating knowledges: Positionality, reflexivities and other tactics. *Progress in Human Geography*, *21*(3), 305–320. https://doi.org/10.1191/030913297673302122

Schoen, V., Blythe, C., Caputo, S., Fox-Kämper, R., Specht, K., Wright, J., Fargue-Lelièvre, A., Cohen, N., Poniży, L., & Fedeńczak, K. (2021). "We have been part of the response": The effects of COVID-19 on community and allotment gardens in the global north. *Frontiers in Sustainable Food Systems*, *5*, Article 732641. https://doi.org/10.3389/fsufs.2021.732641

Sharpe, B. (2013). *Three horizons: The patterning of hope*. Triarchy Press.

Soga, M., Gaston, K. J., & Yamaura, Y. (2017). Gardening is beneficial for health: A meta-analysis, *Preventive Medicine Reports*, *5*, 92–99. https://doi.org/10.1016/j.pmedr.2016.11.007

Stacey, M. (2017, November 6). Urban agriculture plan hatches backyard hen debate again. *The London Free Press*. https://lfpress.com/2017/11/06/urban-agriculture-plan-hatches-backyard-hen-debate-again

Stacey, M. (2019, November 18). Urban farm-gate produce sales advances despite mayor's objections. *The London Free Press*. https://lfpress.com/news/local-news/urban-farm-gate-produce-sales-advances-despite-mayors-objections

Tornaghi, C. (2017). Urban agriculture in the food-disabling city: (Re)defining urban food justice, reimagining a politics of empowerment. *Antipode*, *49*(3), 781–801. https://doi.org/10.1111/anti.12291

Tracy, S. J. (2020). *Qualitative research methods: Collecting evidence, crafting analysis communicating impact* (2nd edition). Wiley Blackwell.

Turner, B. (2011). Embodied connections: Sustainability, food systems and community gardens. *Local Environment*, *16*(6), 509–522. https://doi.org/10.1080/13549839.2011.569537

van Lier, L. E., Utter, J., Denny, S., Lucassen, M., Dyson, B., & Clark, T. (2017). Home gardening and the health and well-being of adolescents. *Health Promotion Practice*, *18*(1), 34–43. https://doi.org/10.1177/1524839916673606

White, M. M. (2011). Sisters of the soil: Urban gardening as resistance in Detroit. *Race/Ethnicity: Multidisciplinary Global Contexts*, *5*(1), 13–28. http://www.jstor.org/stable/10.2979/racethmulglocon.5.1.13

Zurayk, R., Yehya, A. A. K., & Bahn, R. A. (2022). Fragility and resilience in food systems: What can we learn from the COVID-19 crisis? In R. Shaw & A. Gurtoo (Eds.), *Global pandemic and human security* (pp. 183–210). Springer, Singapore. https://doi.org/10.1007/978-981-16-5074-1_10