ross STRATEGIC

HB 1552 Urban Agriculture Report

August 2024

CONTENTS

Acronyms

Term	Abbreviation
Black, Indigenous, and People of Color	BIPOC
Community-based Organization	CBO
Conservation District	CD
Community Supported Agriculture	CSA
International Rescue Committee	IRC
Technical Assistance	TA
U.S. Department of Agriculture	USDA
Washington State Department of Agriculture	WSDA
Washington State Conservation Commission	SCC

Introduction

The Washington State Conservation Commission (SCC) engaged Ross Strategic (Ross Strategic, or "we") to conduct a stakeholder review of the opportunities and barriers regarding urban agriculture in Washington state. This study, directed by HB 1552 (2023-24), aims to describe the multiple benefits of urban agriculture and identify pathways to address key challenges faced by urban farmers and gardeners in the state. Urban agriculture is multidimensional and appears in many forms. The U.S. Department of Agriculture (USDA) defines it as the cultivation, processing, and distribution of agricultural products in urban and suburban areas, which may include community gardens, rooftop farms, hydroponic, aeroponic, and aquaponic facilities, and vertical production (USDA, 2022). This report focused on urban and peri-urban farmers and gardeners who primarily grow agricultural products outdoors. Following a March 2024 focus group with stakeholders, we expanded the scope of this study from the scope outlined in HB 1552 (2023-24) to include peri-urban farms and gardens. Including the peri-urban setting, allowed us to develop a more holistic understanding of urban agriculture.

Definitions

Urban agriculture. For purposes of this report, *urban agriculture* includes for-profit and non-profit farming or gardening ventures in urban areas and community gardens and micro-gardens on small spaces, such as a road meridian or a small space outside of a school. Indoor vertical farming is excluded from this definition.

Peri-urban agriculture. There are some disagreements in the existing literature regarding the definition of *peri-urban agriculture*. For purposes of this report, this term will include any self-identified peri-urban ventures as reported by study participants, and generally refers to farming in suburban areas or rural areas close to a city.

Across Washington state, urban agriculture is becoming increasingly popular, among both producers and consumers. As we learned through our literature review, the benefits of urban agriculture include the potential to increase access to fresh and locally grown food, create economic opportunities, support food security, provide education, and build community.

Despite the many benefits, the literature review revealed significant challenges faced by urban farmers in Washington, particularly regarding unstable land tenure. Many farmers have short-term or informal lease agreements, which hinder the establishment of productive farms and community gardens. This issue is especially pronounced among young farmers and farmers of color, who often cite high land costs as a primary barrier. Additionally, the review highlights that a substantial portion of urban farms operate as nonprofit entities, emphasizing social and environmental benefits over profit. The reliance on farm stands, farmers markets, and Community Supported Agriculture (CSA) for product sales is also noted, with regulatory burdens posing challenges for small-scale ventures.

The stakeholders who participated in this assessment, along with the practitioners whose work we examined through the literature review, illustrate the multi-dimensional nature of urban and peri-urban agriculture in Washington. We observe that some entities primarily focus on the social and educational benefits of their work, while others aim to make a sustainable livelihood through farming, particularly in peri-urban areas. Many entities pursue multiple objectives, such as community building and education, selling products through CSAs or farmers markets, and donating products to anti-hunger and nutrition

organizations. The specific context and goals of an urban or peri-urban agriculture farming or gardening endeavor will shape the extent to which the solutions described in this report address areas of challenge.

This report lays out five key areas of challenge and potential solutions, several project and program spotlights, and three case studies. The following key challenges are addressed:

1. Land Access
2. Water Access
3. Networks & Community
4. Consumer Understanding & Market Access
5. Technical Assistance & Capacity Building

Methodology

Research Questions

This study focused on the following key questions from HB 1552, which directed SCC to conduct a stakeholder review of urban agricultural opportunities and barriers in Washington state:

- How can urban agriculture provide critical economic development, food access, and education opportunities in local communities?
- What opportunities exist within urban agriculture? (e.g., community gardens, urban farms, job creation, access to fresh food, and career development for future farmers).
- How can urban agriculture support local objectives related to green infrastructure, low-impact development, and climate resilience?
- What challenges limit the potential of urban agriculture?
- What are successes and lessons learned among local government agencies and conservation districts involved with urban agriculture program and policy implementation?
- What pilot programs exist to support urban agriculture? What are requisite funding needs for urban agriculture?

Timeline and Activities

This stakeholder assessment leveraged and built upon existing information and research on urban and peri-urban agriculture in Washington state. Data and information were collected via a 2-phase literature review, a focus group, key informant interviews, an online survey, and engagement with the Food Policy Forum and its members. A key limitation of our approach was timing. This 6-month study took place during Washington's growing season which may have limited stakeholder capacity to engage.

- **March – May 2024:** The literature review, focus group, and first round of key informant interviews informed our understanding of the challenges that urban farmers and gardeners face and the multi-benefits these efforts can advance.
- **May 2024:** When we applied the Food Policy Forum's equity filter to this study, we determined we were missing perspectives from Tribes, immigrant and refugee farmers, low-wealth communities, and Black, Indigenous, and People of Color (BIPOC) farmers. These results informed who we invited next to a key informant interview and how we approached the second phase of the literature review.
- **June – July 2024:** We conducted additional key informant interviews and an online survey to refine our understanding of the challenges that impact urban and peri-urban farmers and gardeners and identify potential solutions to address these challenges.

- **August 2024**: We engaged the Food Policy Forum and convened focused discussions with several Food Policy Forum members on specific state-level policy and funding opportunities.

Literature Review

We conducted a literature review, covering academic research, policy reports, and governmental programs related to the experience of urban and peri-urban farmers and gardeners. This review established a foundational understanding of current conditions, the benefits of urban and peri-urban agriculture, unique challenges, and opportunities for urban and peri-urban farmers and gardeners. The second phase of the literature review sought further detail, particularly regarding solutions to key challenges. Refer to **Appendix D: Additional Resources on Urban Agriculture**, for a list of resources that can inform solutions for urban agriculture in Washington.

Focus Group

We conducted a focus group to surface insights related to the research questions for this study. The focus group was an initial discovery conversation to understand stakeholders' perspectives on urban agriculture. Focus group participants shared how they define urban agriculture, the value and role of urban agriculture, major challenges and gaps, success stories, and guidance on practitioners to engage in the study. Refer to **Appendix B: Stakeholder Engagement Participants** for a full list of stakeholders engaged in this study.

Equity Filter

We used the Food Policy Forum's equity filter to guide our approach to this study. When we applied the equity filter, we determined to try and balance the burden of engagement and data collection on practitioners, while ensuring diverse perspectives were not excluded from this research. In applying the equity filter, we discussed that audiences who were likely to benefit from this project included urban constituents and young and emerging farmers. However, audiences that were likely to be left out of this research were (1) BIPOC farmers, due to systemic barriers that limit their capacity to engage and historical patterns of exclusion and insufficient outreach that further perpetuates their underrepresentation in such research; (2) Indigenous communities; (3) Non-English speakers or English language learners; (4) Individuals with limited income who might be interested in urban agriculture; (5) New immigrants to Washington; and (6) Smaller community leaders/officials and unofficial community navigators. This thinking informed who we invited to an interview.

Key Informant Interviews

We conducted two rounds of key informant interviews to gather detailed information from those directly involved in urban agriculture. In total, 16 participants representing urban farms, community-based organizations, CDs, and local government participated in interviews. During the first round of interviews, two individuals declined to participate and during the second round of interviews, 11 individuals either declined or did not respond to interview requests. Interview guides and interview participants can be found in **Appendices A and B**. Key informant interviews illuminated the unique context and barriers impacting urban agriculture in the state.

We asked interviewees to provide additional contacts for urban agriculture practitioners that we could engage with in response to the following question from the equity filter: *"What perspectives do we need to consider to ensure draft recommendations from this process will advance equity in urban agriculture?"* Contacts gathered through interviews informed who was invited to subsequent interviews and who received

an online survey. Refer to **Appendix B: Stakeholder Engagement Participants** for a full list of stakeholders engaged in this study.

Survey Design and Analysis

We sent an online survey to approximately 202 individuals, including interviewees, members of the Food Policy Forum, the Food Policy Forum listserv, organizations and people identified in the Farming on the Urban Edge: A Five-Part Docuseries,[1] and organizations and people identified by interviewees in response to the following question: *"What perspectives do we need to consider to ensure draft recommendations from this process will advance equity in urban agriculture?"* The survey was launched on July 11, 2024, with a deadline of July 26, 2024. The deadline was extended to July 30, 2024, to allow more responses from diverse urban and peri-urban practitioners. Forty-five responses were received (an estimated 22% response rate). The survey tested a series of challenge statements regarding barriers urban and peri-urban farmers and gardeners face and identified solutions to address the areas of challenge. Respondents represented Peri-Urban Farms (24%), Community Gardens (22%), Urban Farms (11%), Nonprofits (11%), Community-based Organizations (CBOs) (9%), CDs (7%), WSU-Extension (5%), City Parks and Recreation Departments (2%), County Public Works (2%), and Other (7%). Respondents rated challenges related to (1) Land Access, (2) Land Use, (3) Water Access & Use, (4) Networks & Community, (5) Education & Awareness, and (6) Technical Assistance & Capacity Building. The survey presented respondents with a series of challenge statements to which they were asked, "to what extent do these statements capture your sense of the challenges" regarding each topic. The survey invited respondents to offer refinements or additional challenges they have encountered. The survey also asked respondents to share potential solutions to address each challenge as well as to identify policies, practices, or pilots that are working to address the needed change. See **Appendix C: Survey Respondent Sector and Demographics** for more information about survey respondents.

Food Policy Forum Engagement

We engaged the Food Policy Forum and conducted additional discussions with Food Policy Forum members (n=10) to discuss and identify state-level policy and funding recommendations. Refer to **Appendix B: Stakeholder Engagement Participants** for a full list of stakeholders engaged in this study.

Case Studies

We compiled information to develop three case studies that spotlight successful examples of urban agriculture projects that have benefited communities across Washington state through the cultivation of community, financial, and environmental capital. Combining information collected during interviews and through additional research, each case study highlights a variety of impacts, challenges, and lessons learned. Refer to Page 20 for the following case studies:

1. Tacoma Urban Land Trust, "Food Security and Cultural Exchange for Underserved Communities"
2. River City Youth Ops, "Whole-Family Wellbeing Through Urban Gardening with Youth"
3. Tilth Alliance, "Healthy Food, Education, and a Sense of Community in Seattle"

[1] The Farming on the Urban Edge docuseries was a key resource in the development of this report. For additional information, visit https://www.periurbanagriculture.org/. All episodes are available online: https://www.periurbanagriculture.org/docuseries

Limitations

Our study methods have several limitations that affect the representativeness of our findings for all types of urban and peri-urban farmers and gardeners. About half of our interview requests were declined or went unanswered. The survey focused narrowly on key challenges identified through the literature review and interviews, which may not capture the full complexity of respondents' opinions or experiences. As with all literature reviews, the selection of sources can be biased, and the interpretation of findings may be subjective. Grey literature, such as reports and government documents, was a crucial source of information on urban and peri-urban agriculture in Washington but is not easily discoverable. Consequently, we may not have considered the full breadth of grey literature on the subject. Additionally, this 6-month study took place during Washington's growing season, potentially limiting stakeholder capacity to engage.

Urban and Peri-Urban Farmers in Washington

In Washington state, urban and peri-urban farmers are cultivating a unique agricultural landscape, combining innovative farming practices with community-focused initiatives to overcome regional challenges and maximize potential opportunities. To best understand the challenges faced by these farmers – including community and small-scale gardeners – it is important to identify the unique positioning of these producers on the agricultural landscape of Washington state while recognizing the vast diversity of experiences encapsulated in urban and peri-urban agriculture. Who are these farmers? How do they experience farming differently than rural and large-scale producers in the region? What unique opportunities can be found in their work?

Urban farmers in Washington experience specific challenges associated with land tenure, with some having unstable or short-term access to the land they are cultivating. Given that it can take years to establish a productive farm or community garden, the barrier presented by unstable land tenure may be a defining factor for struggling urban agriculture endeavors. **Table 1**, reporting data from Pressman et al.'s (2016) publication, shows that 22.6% of urban farmers have a short-term lease and 21.2% use borrowed land with an informal lease agreement, suggesting a lack of longevity or stability in their land access. This same issue was raised by practitioners engaged through this study and is expanded upon in **Challenge #2: Land Access** below; without long-term access to land, urban and peri-urban farmers are hindered from establishing productive gardens and place-based community programming. These barriers are especially prevalent among young farmers and farmers of color – according to the National Young Farmers Coalition,[2] 65% of young west coast farmers identified the cost of land as their primary barrier (Madrone, 2022; Ackoff et al., 2022). The same report, in which 31% of respondents indicated their farm was on suburban land and 15% indicated their farm was on urban land, also identified young farmers on the west coast as the group most likely to lease their land rather than own it, when compared to young farmers in the Midwest, southeast/mid-Atlantic, and northeast (Ackoff et al., 2022).

Unlike farming in rural areas, about 32% of urban and peri-urban farms are nonprofit entities, suggesting a greater emphasis on the environmental and social benefits of agriculture (see **Table 2** below; Pressman et

[2] Although the data in this report are not specific to urban farmers, it is used as a proxy for understanding the key challenges faced by urban farmers, as the average age of urban farmers is younger than the national average age of farmers across the board; in fact, the average age of urban farmers surveyed in 2013 was 44 (Pressman et al., 2016), while the average age of farmers across the United States was 58.3 years and continuing to rise (USDA, 2014).

al., 2016). Additionally, only 2% of urban farms are classified as family-owned, which is staggering when considering that family-owned farms account for 96% of all farms in the nation, according to a 2021 report by USDA (USDA, 2021). Additional details can be found in **Table 2** below. When considering the high percentage of urban farming that takes place as part of non-profit endeavors, it is unsuprising that the land tenure challenges outlined above are often linked to high land prices. In King County, for example, farmland often sells for around $30,000/acre, whereas the average cost of farmland nationwide is just $4,000/acre (King County Department of Natural Resources and Parks, 2022).

When it comes to for-profit urban agriculture, the primary avenues for selling products are unique, and there is a strong emphasis on farm stands and other accessory activities. Some farmers who participated in a survey for this study identified the high regulatory burden placed on accessory activities as especially cumbersome, as small-scale ventures rely on them as a primary marketing outlet. Over 40% of urban farms use farmers markets or farm stands to sell their products and over 22% use Community Supported Agriculture (CSA), as shown in **Table 3** (Pressman et al., 2016). These opportunities are important for new and beginning farmers, as peri-urban parcels close to market opportunities are a common entry point for new and beginning farmers.

A recent report on underrepresented farmers and ranchers in Washington (Washington State Department of Agriculture, 2022) describes specific challenges of farming for people who come from communities that have experienced exclusion from opportunity or have been disadvantaged because of discrimination or prejudice against a group to which they belong.[3] The report finds that many underrepresented farmers and ranchers operate in urban and peri-urban settings, noting that these settings are more likely to address the personal safety and community acceptance concerns experienced by underrepresented farmers and ranchers. Participating farmers noted they didn't feel comfortable reaching out for support from a TA provider unless they knew and trusted the provider. Support and TA resources have only recently begun to adjust to the context and experience of urban farmers. The report also noted that underrepresented farmers and ranchers in Washington find quality farmland is not often listed publicly for sale or lease.

When considering the circumstances outlined above – unstable land tenure; a tendency to be nonprofit and not family-owned; a reliance on farm stands, accessory activities, and farmers markets; and exclusion or barriers faced by members of underrepresented groups – it is critical to remember that this report does not seek to identify a one-size-fits-all profile of an urban farmer in Washington. Rather, the broad spectrum of experiences faced by these farmers have been sought out through the literature review, focus group, interviews, and a survey, with an understanding that the challenges and solutions identified by one producer may not be applicable to their neighbor.

National Urban Agriculture Data

A review of Pressman et al.'s (2016) publication titled "Urban Agriculture in The United States: Baseline Findings of a Nationwide Survey" revealed important insights into the distinctive conditions experienced by urban farmers, as referenced above. The survey data reported in the publication seem to be the most comprehensive overview of urban agriculture conditions currently available, although there are two notable limitations to the use of these data: first, the figures represent a nationwide survey and are not specific to Washington state; second, the survey was conducted over a decade ago in 2013. Nevertheless, the findings reported by Pressman et al. (2016) provide a valuable jumping-off point for understanding the experiences

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[3] The WSDA report identifies underrepresented groups as including but not limited to people who identify as Black, African American, Asian, Indigenous ("American Indian" or "Alaska Native"), Native Hawaiian or Pacific Islander, Hispanic/Latinx, Immigrant, Refugee, LGBTQ+, Veteran, and Women.

of urban agriculture producers, as outlined above. The data presented below is pulled directly from that 2016 publication.

Table 1: Land Tenure Arrangements for Urban Farms, 2013 National Survey of Urban Farms

Tenure agreement	N	Percent
Own land that was purchased	141	49.0
Long-term lease, even if you don't pay rent (multiple years)	79	27.5
Short-term lease, year-to-year or shorter, even if you don't pay rent	65	22.6
Borrow, informal agreement	61	21.2
Own land that was inherited	14	4.9

Table 2: Structure of Urban Farms, 2013 National Survey of Urban Farms

Type of structure	Percent
Nonprofit	32.1
Sole proprietorship	31.4
Limited liability corporation	22.3
Corporation	5.4
Cooperative/employee-owned	3.7
Other type of partnerships	3
Family owned	2

Table 3: Marketing Outlets Used by Urban Farms, 2013 National Survey of Urban Farms

Marketing Outlet	% Gross Sales Mean
Farmers market or farm stand	40.7
CSA	22.4
Restaurants	12.0
Other outlets	10.7
Direct-to-retail (e.g., grocery stores, food cooperatives)	4.9
Other institutions (such as schools)	2.6
Wholesale outlets	2.5
Distributed through cooperative of farms/other farmers	2.3
Regional or local food hub	0.9

Multi-benefits of Urban Agriculture

Urban agriculture can contribute to the growth of thriving communities, economic development among farmers, climate resilience, and advancements in equity[4] among BIPOC residents. According to the USDA Northwest Climate Hub (n.d.), urban agriculture offers several benefits to communities by providing food and clean air, farming land historically unused for agriculture, and supporting a diverse population of farmers and gardeners. Specific benefits of urban agriculture were identified through a literature review and are summarized into the following categories: community capital, financial capital, environmental capital, and social capital. The benefits laid out in these sections are not intended to be exhaustive, but rather highlight key findings from the literature.

When considering the many interconnected benefits of urban and peri-urban agriculture, it is also important to consider the potential unintended consequences that come from these endeavors. While the following four sections outline the multiple benefits of urban and peri-urban agriculture, the final section notes an example of how urban agriculture endeavors – in tandem with other activities – may lead to increased housing costs and the displacement of communities.

Community Capital

There are numerous ways in which community members can participate in urban agriculture, including community gardens, green roofs, and edible landscaping. Below are some examples of how urban agriculture can contribute to the well-being of communities:

"I didn't start the farm to educate community, but I think that's a draw for our community, but it's also a draw for our consumer." - Peri-Urban Agriculture Network, Farming on the Urban Edge: A Five-Part Docuseries

- Foster community cohesion, engagement, and a sense of belonging among participants. Community gardens in particular fostered stronger social connections and civic engagement compared to direct marketing options like farmers' markets and CSAs (Ilieva et al., 2022).
- Nurture post-disaster social resilience. For example, Ilieva et al. (2022) found that community gardens, through social networks, can help participants and surrounding communities better cope with the disruptions caused by natural disasters.
- Support cultural and knowledge exchange among residents and farmers by creating a space for social and cultural gatherings, helping participants, especially immigrants, maintain traditional food practices and connect with their cultural heritage (Diekmann et al., 2020).
- Generate crops for food banks. Raja et al. (2024) found that in Seattle, "Many urban agriculture participants grow beyond their own consumption needs and share excess fruits and vegetables with other community members and local food banks."
- Improve food security and food access. Urban agriculture can improve food and nutrition security by increasing the availability of fresh produce (Hodgson et al., 2011). Intensive production for

[4] See the newly released update to the City of Seattle's Food Action Plan (September 2024) for more information on how the city plans to use food policies and programs to advance equity in the local economy. Access the full report: https://seattle.gov/documents/Departments/OSE/FoodAccess/Food%20Action%20Plan/FoodActionPlan_FullReport_2024.pdf

produce can support a consistent supply of fresh local foods for urban residents (Papanek et al., 2023).

- Provide education on nutrition and food literacy. Urban agriculture-related practices and education extend beyond gardening and farming knowledge to include healthy eating, cooking skills, and an understanding of the food system. Yeatman (2016) noted that urban gardening has been linked to increasing food literacy as it improves both "implicit and explicit knowledge of food production, seasonal foods, basic primary food products and food safety measures."
- Strengthen alternative food networks (AFNs) and address issues related to unemployment, community decline, and food deserts in underserved communities (Steenkamp et al., 2021).

Financial Capital

Urban agriculture can offer economic opportunities for the next generation of diverse farmers. Below are some examples of how urban agriculture can contribute to financial capital:

- Create jobs and volunteer opportunities for new farmers and next generation farmers. Seasonal farm jobs, urban garden volunteering, food marketing and retail, and growing and selling foods in urban areas supports agricultural skill development for emerging generations of farmers. Urban agriculture also has the potential to catalyze interest in agricultural careers among urban populations that might not otherwise be exposed to them. (Papanek et al., 2023).
- Support farmers and gardeners with gaining income and saving costs by producing, selling, or personally consuming the food they grow (Ilieva et al., 2022).
- Improve economic viability of farm businesses by linking local farms to consumer opportunities (Broadway & Broadway, 2011).
- Supplement the broader food supply with locally grown fruits and vegetables. The USDA International Climate Hub (n.d.) found that urban agriculture contributes 15-20% of the global food supply.

Environmental Capital

The impacts of climate change can be mitigated by engaging in urban agriculture. Below are some examples of how urban agriculture can contribute to increased climate resilience:

- Reduce carbon in residents' diets through education on food production and improve conservation behaviors among residents. For example, Puigdueta et al. (2021) highlighted that "urban gardeners were more likely to eat a diet that had a 10% lower carbon footprint compared to a control group, mostly by reducing meat consumption." This behavior change is often driven by understanding where food comes from or being part of a community that encourages a more sustainable diet (Puigdueta et al., 2021).
- Reduce heat island effect by providing shade and cooling in urban green spaces. Urban green spaces, including urban gardens/farms, can effectively reduce ambient air and surface temperatures, and provide an "urban cool island" effect primarily through evapotranspiration and shading (Gomez-Martinez et al., 2021).
- Improve equity by mitigating the disproportionately negative effects of climate change on human health in communities. The USDA International Climate Hub (n.d.) reported that "people of color experience more pollution and greater effects of climate change due to discriminatory real estate practices, including redlining". In this case, urban agriculture can "provide a type of greenspace that can reduce the effects of climate change for nearby residents."
- Help to improve resilience to environmental disasters The International Climate Hub (n.d.) found potential for urban agriculture to "build local resilience by providing access to local foods." Urban economies are especially vulnerable to the impacts of climate change (e.g., extreme weather and natural disasters) since they disrupt food production, processing, and distribution in rural areas. There is growing attention from international policymakers on the role of urban agriculture in creating sustainable and resilient food systems that can withstand and recover from climate change-related weather events (Dubbeling et al., 2019).
- Contribute to reduced carbon emissions from food production. For example, tomatoes grown in open-air urban plots can have a lower carbon footprint than those grown in conventional greenhouses (Hawkes et al., 2024).
- Support increased biodiversity through pollinator gardens and native plant gardens. Community gardens and urban farms positively affect biodiversity. Jha et al. (2023) noted, "gardens are providing nutritional resources and supporting incredibly high levels of plant and animal biodiversity. It's a win-win."

"Micro farms like our 1-acre farm will not ever provide the majority of food for the area but I do feel that we provide a service in our accessibility to the community, as a learning space, and a specialized food producer who can respond to demands of a local market. We also preserve green space and provide habitat areas that are lost in traditional urban spaces." - Peri-Urban Farm (Clark County)

Social Capital

Beyond the community, financial, and environmental impacts, urban agriculture can address social inequities and support body-mind wellness, relationship-building, and spiritual connection among residents. For example, Gripper (2023) found that urban agriculture can specifically address inequities in Black

communities by improving access to affordable and culturally significant foods and increasing "agency, freedom, resistance, and care" among residents. Additional ways in which urban agriculture can advance social equity in low-income communities and communities of color include:

- Improve student engagement and education through hands-on learning. In a study conducted by Ilieva et al. (2022), more than 300 middle school students in the Pacific Northwest measured student engagement as it related to participation in school gardens, "finding statistically significant associations between gardening and both potential academic outcomes such as learning and achievement as well as engagement in science and school and academic self-perceptions."
- Engage communities in learning about urban agriculture practices and knowledge related to growing local and healthy foods. Gardening has been found to directly lead to improved fruit and vegetable intake when nutrition intervention programs, supported with backyard gardening, increased dietary diversity among students (Ilieva et al., 2022). Community gardens can also increase "citizenship, activism, and social mobilization" and foster leadership among residents (Golden, 2013).
- Improve physical health and mental health outcomes and community development across communities (Malberg et al., 2020). The act of gardening or farming, being outdoors, and producing healthy, fresh food contributes to overall well-being and improves farmers/gardeners' sense of belonging, connectedness, and self-esteem (Kirby et al., 2021).
- Strengthen "community self-determination, self-reliance, and activism" and economic self-determination, particularly among Black-led urban agriculture practitioners (Gripper, 2023). Ilieva et al. (2022) noted that, "compared to non-gardeners, gardeners reported greater self-esteem and mental well-being, experiencing less depression and fatigue""
- Support integration of immigrants into new communities (Golden, 2013). Urban gardens can serve as spaces for marginalized residents, such as refugees and ethnic minorities to integrate into their local communities (Harris et al., 2014).
- Increase access to fresh and local foods in historically disadvantaged communities (Gripper, 2013).

Unintended Consequences

"Be careful of urban agriculture as a strategy for urban renewal because with that comes the gentrification and displacement of communities." – Coalition (Clark County)

As policymakers pursue urban agriculture, they should be mindful of the potential for green gentrification, which can lead to the displacement of long-standing, lower-income residents (Sbicca, 2019). It is crucial to balance urban agriculture aims for fresh produce and green space with social equity by implementing policies that ensure affordable housing, community ownership, and inclusive development (Rosan, 2017). Engaging local communities in the planning process can help mitigate the adverse effects of green gentrification. Policymakers should identify and implement approaches that ensure the benefits of urban agriculture are equitably distributed and do not inadvertently harm the communities they aim to enhance (Marshall, 2022).

Challenges and Opportunities

The following section describes the challenges urban and peri-urban farmers and gardeners in Washington face and potential solutions to address these challenges. Our understanding of the challenges was developed based on the literature and interviews (n=16) and refined in some cases based on the online survey (n=45) and engagement with Food Policy Forum members (n=10). The solutions were developed based on survey results, engagement with the Food Policy Forum, and in cases where model policy was available, based on the literature. The survey invited respondents to indicate their level of agreement with each challenge and to refine or add new challenges based on their experience. The survey also asked respondents to share potential solutions to address each challenge as well as to share policies, practices, or pilots that are working to address the needed change.

The solutions identified under each challenge in the next section differ significantly in their approaches. Some are ready for state legislative action, while others may need intervention at the county or city level. Certain solutions involve active or dormant programs or networks that could benefit from additional funding and support to enhance or expand their impact. We discovered these programs and networks through the literature, interviews, and survey. The examples provided are not prioritized or necessarily the most exemplary. We have included brief descriptions and links to more information where available.

As noted earlier in this report, the stakeholders who participated in this assessment, and the stakeholders whose work we came to understand through the literature review, demonstrate the multi-dimensional nature of urban and peri-urban agriculture in Washington. The specific context and goals of an urban and peri-urban agriculture farming or gardening endeavor will shape the degree to which the solutions described below match needs. Because of this, in some instances we have flagged whether solutions are likely to be a better fit for urban versus peri-urban settings.

Across the experiences of urban and peri-urban farmers and gardeners in Washington, we identified the following challenges: (1) Land Access, (2) Water Access, (3) Networks & Community, (4) Consumer Understanding & Market Access, and (5) Technical Assistance & Capacity Building.

Survey Results

Survey respondents (n=45) generally agreed with the way we characterized the challenges facing urban and peri-urban farmers and gardeners in Washington. Please see below for how survey respondents rated their degree of agreement with each challenge statement.

Challenge	Challenge Statement(s)	Average Rating (1=Strongly Disagree and 5 = Strongly Agree)
Land Access	Development and housing pressures are causing high land prices, making it expensive to lease or purchase land. Farmland preservation funding is focused on large parcels, and few to no farmland preservation funds or programs are effective for farms under 20 acres. It can be challenging to secure a long-term, high-quality lease agreement. It's necessary but often difficult to use existing open space to grow food.	4.59 (n=41)
Land Use	Farming is often not considered a desirable and permitted land use in urban areas. Urban and peri-urban communities encounter some resistance to agriculture activities occurring close to dense residential	4.10 (n=41)

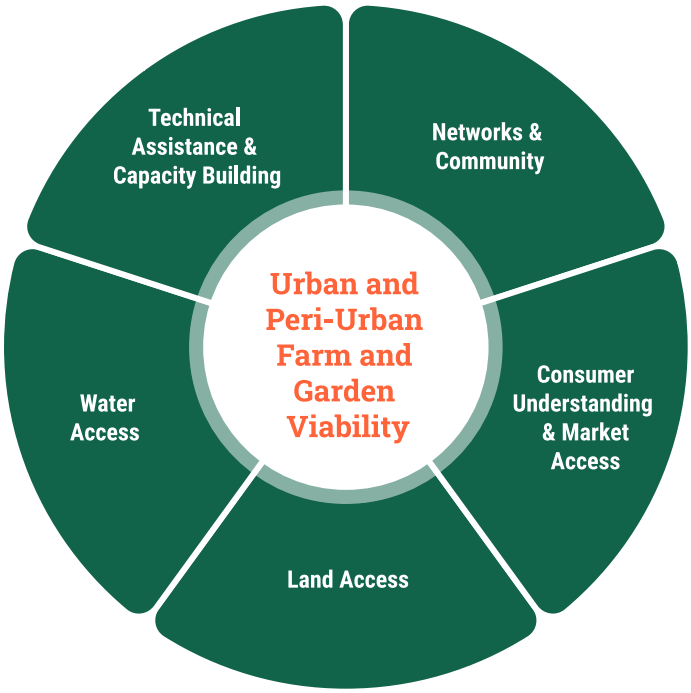
Challenge	Challenge Statement(s)	Average Rating (1=Strongly Disagree and 5 = Strongly Agree)
	areas, including concerns about noise, equipment, animals, and smell. Parcels are small, which drives practices such as diversified and intensive production, collective land purchasing or leasing, and an increased need for engagement in accessory uses. Accessory uses (farm stand, brewery, agrotourism activities, etc.) are drivers of farm visibility and economic success. Increased visibility fosters the sense among residents that local farms are part of their community, but it is not always clear which agriculture activities are allowed (e.g., agrotourism; collaborating to sell products from other farms).	
Water Access	Urban agriculture practitioners are challenged by inaccessible and/or expensive municipal water resources. Some producers need TA and equipment (such as cisterns and drip tape) to effectively make use of water resources for irrigation. For non-municipal water users, water rights are difficult to understand and there are insufficient resources and information to help farmers navigate water law.	3.93 (n=40)
Networks & Community	Urban and peri-urban agriculture practitioners lack adequate and sustained support to organize and network to raise their voices in the policy arena and build market, aggregation, and other community partnerships while offering mutual support and opportunities for new, underserved, and BIPOC farmers.	4.12 (n=42)
Education & Awareness[5]	Farming is not sufficiently considered a desirable and permitted land use in urban areas. Urban and peri-urban communities encounter some resistance to agriculture activities occurring close to dense residential areas, including concerns about noise, equipment, animals, and smell. Urban and peri-urban communities think of agriculture as a rural context activity and may not be sufficiently aware of the large and varied values that urban and peri-urban agriculture offers, including fostering interest and capacity of emerging and next generation farmers; growing culturally relevant foods; supplying food for anti-hunger programming; fostering a sense of community; and providing community education on topics such as ag, nutrition, and environmental conservation. Urban farms and garden projects are hard to sustain because of inadequate volunteerism and other support needed to maintain these projects for success.	3.93 (n=41)
Technical Assistance & Capacity Building	Many urban and peri-urban farmers are new or next generation farmers who need a variety of TA resources to be successful in their farming endeavors. TA needs include land sourcing and acquisition, water conservation and irrigation techniques, soil health, crop planning, market access, etc. Operating successfully on small parcels requires diversified operations and often intensive vegetable production. This requires the	4.12 (n=41)

[5] Our understanding of this areas of challenge expanded after we distributed the survey based on survey results and conversations with Food Policy Forum Members. This challenge was expanded to Consumer Understanding and Market Access.

Challenge	Challenge Statement(s)	Average Rating (1=Strongly Disagree and 5 = Strongly Agree)
	cultivation of a specific skillset. Hands-on educational pathways and incubator farms are not at sufficient scale to meet demand.	

Challenge #1: Land Access

Land cost is a significant challenge for farmers across Washington. In the urban and peri-urban setting, producers face extreme development pressure and land prices. Existing land protection funding is often structured to support one farmer or farming family buying one piece of land. In the context of urban agriculture, it is not always one farmer purchasing one parcel of land.



Historically, farmland preservation programs have disincentivized land trusts from acquiring smaller parcels (under 20 acres), particularly those within urban growth areas. The current paradigm, including the metrics by which land preservation is measured, has deficiencies, especially regarding equity and urban agriculture. The cost-per-acre metric inherently disadvantages urban farmers, as the per-acre cost of an easement in the city is always higher compared to a rural acre.

Additionally, land use concerns in urban settings are more complex and layered. It takes as much time, if not more, to preserve 5 acres as it does 20 acres. Land trusts are challenged by insufficient staff capacity to do more land conservation and the necessary stewardship; most can only do 1-2 projects per year.

The current paradigm favors preserving land with prime soils, water rights, and proximity to other preserved farmland or agricultural centers. This perspective disadvantages urban lands, which may rely on municipal water and represent the last available parcels for agriculture. Preserving these last parcels may be the final opportunity for local communities to remain close to food production, which, as noted elsewhere in the report, can serve multiple purposes such as economic opportunity, community building, and education.

The benefit of preserving farmland could be reframed in terms of the number of people who benefit. An acre of farmland preserved in urban areas can benefit multiple farmers and serve various aims simultaneously. **See Spotlight on Land Access | Horseneck Farm**

"Farmland should be valued for its many contributions and zoned as part of city plan for many reasons: climate remediation value, water percolation/storm water mgt, community gathering space, place of food, shade, healthy diets and exercise." – Urban Farm (King County)

(Below) to learn more about how Horseneck Farm supports diversity in the local food system by providing affordable land access to immigrant, refugee, and beginning farmers through the King County Farmland Leasing Program.

Furthermore, it can be challenging to secure a long-term, high-quality lease agreement. In this context, urban and peri-urban farmers turn to and rely on a suite of creative land access mechanisms such as, Institutional Leasing, Public Land Leasing, Incubator Farms, Nonprofit Stewardship, Land Trusts, etc.[6]

Examples of these strategies in use in Washington include:

Institutional Leasing	Leasing vacant land from a school, church, or other land-holding institution	Paradise Parking Plots Community Garden
Public Land Leasing	Leasing vacant land from a city, county, or other government entity	Bainbridge Island/Friends of Farms
Incubator Farms	Temporary, affordable access to small parcels of land, equipment, training for new/beginning farmers.	Viva Farms
Nonprofit Stewardship	Nonprofit owns or leases land and provides a way for community members to learn about agriculture and develop a relationship to the land	Black Farmers Collective

Adding to the complexity, farming is often not considered a desirable and permitted land use in urban areas; urban and peri-urban communities encounter some resistance to agriculture activities occurring close to dense residential areas, including concerns about noise, equipment, animals, and smell.

Even after securing land access, urban and peri-urban agriculture face considerable cost and regulation and other obstacles to navigating land use regulations necessary to pursue accessory uses like farm stands, and agritourism activities. Urban land is not typically zoned to support agricultural activities.

[6] Addie Candib, American Farmland Trust. Creative Land Access Strategies. April 29, 2024.

The cost and regulatory burden associated with accessory uses is high. Parcels are small, which drives practices such as diversified and intensive production, collective land purchasing or leasing, and an increased need for engagement in accessory uses. Accessory uses (farm stands, agrotourism activities, etc.) can be drivers of farm visibility and economic success. Increased visibility fosters the sense among residents that local farms are part of their community, but it is not always clear which agriculture activities are allowed (e.g., agritourism; collaborating to sell products from other farms).

Program Spotlight: Land Access | Horseneck Farm

Horseneck Farm, located just outside Kent, Washington, is a 30-acre site owned by King County and dedicated to increasing diversity in the local food system. Through the King County Farmland Leasing Program, the farm provides plots to immigrant and refugee farmer-focused organizations, as well as individual farmers and farm businesses. This initiative aims to support marginalized and beginning farmers by offering affordable land access amidst rising property prices. The farm features a variety of crops, including kale, eggplant, and corn, and serves as a green retreat within a hub of manufacturing.

"With the establishment of a new lease, this 5-acre corner of Horseneck Farm is now tended by over a dozen farmers working alongside each other. The nonprofits leasing the property from the County are a coalition called Food Access and Aggregation Community Team (FAACT), a network of South King County organizations which includes the Seattle International Rescue Committee (IRC), South King County Food Coalition, Elk Run Farm, Food Innovation Network, Highline College, Living Well Kent, Wakulima USA, and Shared Soil. A collaborative grant writing process resulted in the group's partnership that began this year on Horseneck Farm."

Learn more about Seattle's largest urban farm, the Rainier Beach Urban Farm & Wetlands, a multi-use agriculture space in **Case Study #2, "Healthy Food, Education, and a Sense of Community in Seattle" (page 20)**

Land Access: Solutions and Opportunities

Particularly relevant for urban agriculture

Particularly relevant for peri-urban agriculture

Create new funding sources to support urban land protection and access, including access by nonprofits and other non-traditional farming entities. Design the program to shift the paradigm by designing screening criteria for project selection to reflect the realities of urban settings

Increase funding for the Farmland Protection and Land Access Account. FPLA serves the dual purpose of permanently protecting high-quality farmland and facilitating access to land for next-generation farmers and ranchers (Washington State Conservation Commission, n.d.). FPLA complements the "Buy-Protect-Sell" category of FarmPAI, a program of the Washington State Housing Finance Commission. Conservation entities that have secured a loan through FarmPAI can apply to FPLA to fund the agricultural conservation easement (the second step in a "Buy-Protect-Sell" transaction). FPLA is an important mechanism for peri-urban farmers to secure land.

Create mechanisms or funding programs for land trusts and other conservation organizations to retain ownership in perpetuity.

Invest in the capacity of land trusts and other organizations working on farmland protection to increase the number of land preservation projects completed annually, including projects protecting parcels less than 20 acres in size. For example, the legislature currently invests in the capacity of local dispute resolution centers to support dispute resolution outside of the court system. Capacity building dollars are funneled into Resolution WA (the umbrella organization for local dispute resolution centers) and from there dispersed to local organizations. A similar model could be applied to land conservation.

Develop guidance and tools for cities and counties to better plan for urban agriculture on public and private land[7]**,** including:

- Code changes to encourage and support urban agriculture, such as: Provide clarity on agricultural definitions; Specify which zones permit urban agriculture and what types; Allow on-site sales; Allow for small-animal husbandry; Allow for noncommercial urban agricultural production; Allow accessory structures to support production; Allow cottage industries.
- Economic development initiatives such as siting processing and distribution infrastructure and institutional buying programs that preference local producers.
- Prioritizing housing development projects that incorporate urban agriculture or gardening programs.
- Allowing urban farms and gardens to count as low impact development and stormwater management.
- Integrating agriculture and community gardening into parks planning and development.

Explore approaches to using property taxes to incentivize urban property owners to use their land for agricultural purposes.

Encourage public landowners (e.g., parks department, public utilities, etc.) to inventory land holdings, identify parcels suitable for farming, and make the land available for urban farming including paved locations where topsoil could be installed in raised beds and greenhouses could be installed.

Reduce regulatory burden and permit costs/burdens for accessory uses (agritourism, farm tours, farm-stays, on-farm processing, farm stands, agricultural buildings), such as exempt farmstands from regulation under the retail food code for permanent food establishments.

Explore application of the community land trust model in urban settings. In this model the land trust owns the land, and the farmer owns the infrastructure or has a long-term heritable lease.

Strengthen right-to-farm legislation at the city and county level. The Right to Farm is supported by RCW 7.48.305 through anti-nuisance law, which is particularly relevant in peri-urban areas where residential and commercial developments are nearby (Agricultural Activities and Forest Practices, 2009). This law protects farmers from nuisance complaints from their neighbors.

[7] This recommendation was partially informed by a review of the Healthy Food Policy Project's (2024) *Zoning for Uban Agriculture* guide. For additional information, and to review the guide, visit https://healthyfoodpolicyproject.org/key-issues/zoning-for-urban-agriculture

Challenge #2: Water Access

Sustainable and affordable water access is essential to agriculture no matter the scale. Urban agriculture practitioners continue to navigate challenges with physically inaccessible water and expensive city or municipal water resources. Producers need TA and equipment (such as cisterns and drip tape) to effectively make use of water resources for irrigation as urban parcels generally lack irrigation water rights.

"Farms and gardens need water both for growing crops and for cooling/processing produce. We need new and innovative solutions to capture stormwater and make it suitable for use on produce farms and gardens." – Peri-Urban Farm (King County)

For non-municipal water users, water rights are difficult to understand and there are insufficient resources and information to help farmers navigate water law. Recent publications indicate that farmers struggle to navigate regional water laws and communicate their water-related issues to policymakers.

Challenge #5: Technical Assistance & Capacity Building includes *Provide localized TA to assist farmers with understanding water law and alternatives to municipal water.*

Based on results from the online survey, not all respondents experience barriers to accessing water. In fact, one respondent from a community garden in Spokane noted that abundant and free water for the garden can lead to imprudent use.

We are exceptionally lucky to get water free of charge and without limit by the local utility, which owns the land on which we operate. While this is a great gift for us, it can of course lead to the imprudent use of it. I think the challenge we face, especially as we grow, is to get the infrastructure in place to make better use of the water we receive (cisterns, drip irrigation, xeriscaping, etc.), and getting the necessary funding to make all that possible." – Community Garden (Spokane County)

Water Access: Solutions and Opportunities

Particularly relevant for urban agriculture

Particularly relevant for peri-urban agriculture

Fund counties and municipalities to offer incentives and reduced costs for water resources, such as:

- Reduced cost for installing a water meter.
- Reduced municipal water rate for agricultural uses. Implementing a discounted rate based on how much land is dedicated to agriculture.
- Reduced municipal rate if the garden is practicing water conservation (e.g., using drip tape irrigation and soaker hoses and watering in the early morning or late evening).
- A "water credit" system for urban/peri-urban farms based on the level of ecosystems services provided by their farms to reduce cost.
- Allow and provide funding to community gardens to access fire hydrants as a water supply to irrigate and wash crops. Chicago offers a model through its Hydrant Access Permit

program, which facilitates easier access to city water for community gardens and urban farms. This program includes technical assistance, financial support, and necessary equipment to ensure safe and efficient water use.

Increase use of water conservation and reuse practices.

- Offer free or reduced/cost share for drip irrigation system installation and cistern or other water catchment systems for irrigation. The King County RainWise program to manage stormwater is a model to consider, as it provides rebates to cover "most or all of the cost of installing cisterns and rain gardens on private properties in eligible combined sewer overflow basins" (King County).
- Invest in purple pipe infrastructure for communities with water treatment systems capable of producing water clean enough for irrigation. Purple pipes deliver reclaimed water (water not intended for drinking) for alternative uses, including watering grass and plants (Washington State Department of Ecology, n.d.).

Consider how to prioritize water storage as an adjunct for stormwater management. In urban and peri-urban settings stormwater management and rainwater capture for irrigation are separate systems. Agriculture sees the water as an essential resource and municipalities see it as a stormwater management issue.

Continue to support the work of conservation districts to actively work with communities on water conservation approaches. Examples of current activity include:

- **Kitsap CD** has a model for rainwater collection with an above ground cistern system for their demonstration farm. The cistern system initially seemed cost prohibitive but has become an increasingly viable investment/solution for farms.
- In 2023, **Palouse CD** hosted virtual workshops for their beginner gardener series, which included a workshop on "Drip and Micro-Irrigation Strategies for the Small Farm and Backyard Garden". The workshop engaged 101 residents who learned about irrigation strategies for water conservation (Drip and Micro-Irrigation Strategies, 2023).
- **South Douglas CD** collaborates with educational programs to support community gardens. South Douglas CD installed garden beds at the Grace House, a safe residence for women and children in East Wenatchee. The project included drip irrigation system implementation with a water timing meter.

Challenge #3: Networks & Community

Community and collaboration lie at the core of a resilient and sustainable food system. During the pandemic, increased connection and network formation advanced food system innovation and problem-solving. The Washington State Food System Assessment Report (Otten et al., 2021) recommends creating and coordinating robust and dynamic networks that leverage community-held expertise and foster innovative solutions.

Urban and peri-urban agriculture practitioners lack adequate and sustained support to organize, network, and raise their voices in the policy arena. They need help building market, aggregation, and other

community partnerships while offering mutual support and opportunities for new, underserved, and BIPOC farmers.

Despite the involvement of numerous organizations, institutions, and community members in urban agriculture, the lack of a centralized network hinders the success of urban and peri-urban farms and gardens. This absence of coordinated advocacy limits farmers' ability to voice needs and solutions, secure funding, and address systemic barriers to success.

Urban agriculture thrives on community support and mentorship, with farmers benefiting from networks that offer guidance, training, and shared learnings. Without such networks, many farmers miss the opportunity to learn from other producers.

See Case Study #1: Tacoma Urban Land Trust (TULT) on page 20 to learn about a network of farmers, gardeners, and residents working to advance food production, knowledge sharing, and community building and education.

"In my work, I have seen firsthand how farmers want to participate yet don't have the bandwidth to coordinate. They will show up if that work is done." - WSU Extension Kitsap County

"Farmers need true and trusted partners. They need support for their attempts to self-organize." – Coalition (Clark County)

Networks & Community: Solutions and Opportunities

Particularly relevant for urban agriculture

Particularly relevant for peri-urban agriculture

	Establish an urban and peri-urban agriculture advisory committee and/or ombudsperson in state government to encourage and support agricultural activities within urban and peri-urban areas and advise on policies and regulations that facilitate urban farming. This position could facilitate connections between stakeholders, monitor the effectiveness of support services, and make recommendations for continuous improvement.
	Invest in networks of urban farmers and gardeners being led by conservation districts, food policy councils, and other non-profits such as, Northwest Youth Garden Network, South Sound Food System Network, and others affiliated with technical assistance and capacity building efforts (see Challenge #5 Technical Assistance & Capacity Building).
	Invest in existing networks, such as the Peri-Urban Agriculture Network (a project of WSU) and Washington Young Farmers Coalition, that need additional support to operate effectively.
	Maintain an updated list of people, projects, programs, and organizations engaged in urban and peri-urban gardening and farming and create a platform to connect. This could involve creating a central online hub where information, resources, and opportunities are aggregated and easily accessible to all stakeholders.

Opportunity Highlight

The City of Spokane updated its municipal code (17C.380) allowing residents to cultivate produce and raise livestock on their property for sale. **A network of 14 organizations in Spokane are interested** in furthering these efforts **and expanding the community's capacity to grow a sustainable agricultural system through education and TA**. This growing network intends to support low-income and new urban farmers to learn how to develop and manage their urban market, operations, and community and home gardens. Opportunities in the region include working with Project Hope's youth farming program to introduce conservation techniques and provide strategic support for soil sampling, farm plot design, and hands-on education.

Challenge #4: Consumer Understanding & Market Access

Enhancing Consumer Understanding. The call for more facilitated support for public education and awareness about the food system is found in several recent reports and local activity, including the Washington State Food System Assessment report which notes the need to "expand food system literacy among the public, building increased awareness of the sector as a key source of nourishment as well as employment and economic vitality" (Otten et al., 2021, p. 111). The integration of agriculture into an urban landscape is not only about planting seeds, but also about sowing the connection to the multi-benefits that come from urban agriculture. Residents are not sufficiently aware of the values that urban and peri-urban agriculture offers.

"In regions where farming on the urban edge has remained a viable and important component of local culture it's because there has been some kind of bridge between farmers and residents." – Peri-Urban Agriculture Network, Farming on the Urban Edge: A Five-Part Docuseries

According to stakeholders we interviewed for this study, farming is not sufficiently considered a desirable and permitted land use in urban areas as urban and peri-urban communities think of agriculture in rural settings. As a result, some for-profit farms encounter complaints from residents about their operations. Additionally, nonprofit urban farms and garden projects can be difficult to sustain, in part, because of inadequate volunteerism and other support needed to maintain these projects for success.

See Case Study #3 on page 20 to learn more about River City Youth Ops' work on youth education about agriculture.

Stakeholders also identified the need for education campaigns about the impacts of urban sprawl. In discussing growing urban areas, stakeholders stated a community education campaign could further address the long-term economic and ecosystem service tradeoffs between development and food production, thus helping the public understand the value of maintaining agricultural spaces. **See Program Spotlight: Consumer Understanding | Heritage Farm (below)** to learn about Heritage Farm's consumer education programming.

Program Spotlight: Consumer Understanding | Heritage Farm

Overview: The Clark County Heritage Farm (Heritage Farm) began in the 1870s and evolved from a "Poor Farm" managed by Clark County to a research and experimental farm for WSU Extension. Since 2008, Clark County resumed management of Heritage Farm and a recent 2020 plan outlines agricultural, educational, and recreational goals for Heritage Farm (Clark County Public Works, 2020).

Impact: Heritage Farm provides many benefits to communities, including space for agricultural research and education, community gardens/local agriculture, youth engagement, and education on food preservation and health. Heritage Farm will benefit from increased support funding as they pursue efforts to preserve Clark County's agricultural heritage and WSU Extension's involvement with educational programs and research. Heritage Farm continues to demonstrate how sustainable agricultural and building practices contribute to community wellness, volunteerism, and life-long learning.

Enhancing Market Access. Many urban agriculture initiatives we examined during this assessment have multiple goals. These include increasing access to growing opportunities for a diverse range of people, building community, providing education, growing food for donation, and producing food for sale. The cost of living and doing business is especially expensive for self-employed entrepreneurs in urban areas, including current and aspiring farmers. A core asset of urban farmers is their proximity to a large consumer base and low cost, scalable, direct-to-consumer opportunities, such as through farmers markets, farm stands, and Community Supported Agriculture (CSA). These established marketing channels are where urban-based farms can generate income.

"We have a lot of immigrants and refugees from rural areas with some history in farming, who end up in urban areas, then access a community garden plot. What we see are people doing well with their community garden plot and would like to sell to supplement their income. But that is not allowed consistently. Hook these people up with an incubator." - Professor and Extension Specialist

Washington state's farmers markets provide economic opportunities for farmers throughout the state. According to the Washington State Farmers Market Association (WSFMA), their 105 member farmers markets reported over $40.5 million in Farm Vendor Sales in 2023. Farmers markets are especially essential community assets to the local food economies[8] in urban areas. The WSFMA estimates that 30% of the farmers markets located in urban areas represented 69% of the Farm Vendor Sales or over $28 million in 2023 (personal communication). Farmers markets allow farmers to set their own prices and retain the full retail value of their products.

Farmers markets also manage federally regulated food assistance programs such as SNAP, SNAP Market Match, and WIC/Senior Farmers Market Nutrition Program on behalf of farm and food vendors. Statewide,

[8] The City of Seattle's newly released (September 2024) updated Food Action Plan is a key resource for understanding the importance of locally grown food, as well as the work being done to support local supply chains in Seattle. The full report can be accessed at: https://seattle.gov/documents/Departments/OSE/FoodAccess/Food%20Action%20Plan/FoodActionPlan_FullReport_2024.pdf

Washington farmers markets redeemed over $4 million in food access programs in 2023. The vast majority of these benefits were redeemed in King County and other urban farmers markets, serving families and farmers alike.

Farmers markets also provide non-economic opportunities for farmers such as getting real-time feedback from shoppers, other vendors, and market staff that build farmers' business skills, support networks, and customer base. Farmers markets hold annual vendor meetings, manager vendor listservs, and communicate weekly about grant opportunities, regulations/requirements around food safety, food access programs, and some have created emergency funds to provide cash support in times of floods, fire, and other emergencies.

The values embedded in "knowing where your food comes from" can be realized at farmers markets.

Stakeholders we spoke with noted that there is demand among farmers who start growing food in community gardens to transition togrowing on parcels where they are supported and can sell what they grow. Community garden growers are not consistently allowed to sell their produce; however, they are permitted to donate it. **See Program Spotlight: Market Access | IRC New Roots (below)** to learn more about an effort to support New Roots farmers in selling their produce.

"The bottom line is in the last generation we have all but wiped out the ability for the general public to have a basic understanding of what it takes to produce the food that they consume. This is largely the root of many of the problems between the agricultural community and the urban community." - Vegetable and Flower Farmer (Kitsap County)

We also learned that public landowners can be reluctant to permit farmers growing on public land to sell their product. This reluctance often stems from concerns about regulatory compliance, liability issues, and the potential for commercial activities to conflict with the intended use of the land. Additionally, public land is typically designated for community benefit, and there may be policies in place that prioritize non-commercial uses, such as community gardening or educational programs. Challenge #5: Technical Assistance & Capacity Building includes *Provide education and TA to landholders (e.g., parks and recreation, transportation, public utilities, etc.) who want to support farmers growing on their land but need more specialized knowledge to do so (e.g., soil management, crop selection, and various farming techniques)*.

Challenge #5: Technical Assistance & Capacity Building includes opportunities to support farmers in market access and readiness, including *Continue to fund the WSDA's Local Food System Infrastructure Grant Program. This grant program is about getting ready post-harvest for market access, by funding infrastructure purchase.*

Consumer Understanding & Market Access: Solutions and Opportunities

Particularly relevant for urban agriculture

Particularly relevant for peri-urban agriculture

Invest in education about agriculture, supporting and learning from existing efforts, such as:

- The farming and food justice program, **Y-We Grow,** which operates at Marra Farm, a community garden in South Park, Seattle, near the Duwamish River. The organization provides experiential education and opportunities for youth relating to urban agriculture and food

systems. This program is free to attend for young women, trans, non-binary, and gender expansive youth ages 13-19, centering BIPOC and LGBTQIA+ youth.

- **Sovereignty Farm** is a project focused on Indigenous food sovereignty and community resilience. Located just south of Seattle in Tukwila, WA, the farm has successfully cultivated a variety of traditional crops and medicinal plants in its first year, providing fresh produce to the local Indigenous community. The project emphasizes the importance of reconnecting with ancestral agricultural practices and fostering a sustainable food system. Through educational workshops and community events, Sovereignty Farm aims to empower Indigenous people with the knowledge and skills to grow their own food and maintain cultural traditions.
- **GRuB (Garden-Raised Bounty)** is a nonprofit organization based in Olympia, Washington, dedicated to growing healthy food, people, and communities. With a mission to cultivate a just and sustainable food system, GRuB engages youth, veterans, and community members through various programs centered around urban agriculture, education, and community building. GRuB operates a 3-acre urban farm in West Olympia, which serves as the heart of its programs. The farm is a hub for youth agricultural education, providing a unique blend of work experience, community engagement, and academic learning for young people who may not thrive in traditional school settings. GRuB's programs include the GRuB Garden Project, which helps establish gardens in residential homes and community spaces, and initiatives for veterans, food access, and education.
- **Tilth Alliance's** programs for youth and families provide opportunities for young people from diverse backgrounds to connect with their community and the natural world through meaningful experiences in gardens, farms, and kitchens.
- **21 Acres** is a center for sustainable agriculture education and collective action located in Woodinville, WA. The program offers a variety of food and farm-based activities, including educational workshops, volunteer opportunities, and tours of their LEED platinum-certified building and farm. Their mission focuses on promoting climate solutions through sustainable farming practices, local food systems, and community engagement. Visitors can participate in hands-on learning experiences, support local farmers at the Farm Market, and explore the power of wetlands and other environmental initiatives.
- Seattle's Urban Food Systems Program partnered with Seattle Public Library to co-create and host the **BLOOM Fellowship,** a two-week program for young BIPOC adults to gain valuable work experience via an urban agriculture platform of social justice skill building opportunities.

Provide permanent funding to eat/buy local programs to connect urban and peri-urban producers with economic opportunity and increase connections between producers and residents.

- Efforts like Eat Local First provide a mechanism for farmers, including beginning and small scale urban producers, to market to individual consumers and wholesale buyers, for example see this Kent, WA producer, Umoja N'Inguvu Farm's profile on the WA Farm Food Finder Map. The WA Farm Food Finder Map offers a free web listing and technical assistance to producers to market their farms no matter their internet proficiency, language preference, or scale of production. The project currently lacks permanent funding but has been funded for the last three years via proviso.
- Related to current eat/buy local programs is renewed energy to produce a state brand program to promote Washington agricultural products. During the 2023–2024 legislative session, the legislature passed Engrossed Senate Bill 5341 (ESB 5341), now codified in RCW 15.155, which

enabled WSDA to create a location-based promotion program for Washington food and agricultural products. This is more commonly known as a statewide marketing or "brand" program. A recent report, A Location-based Promotion Program for Washington Food and Agricultural Products, found that there is broad stakeholder interest and support for the development of a robust program along the lines that exist in other states — and more time is needed to thoughtfully build out this program and carry out the legislative directives.

Explore how agritourism can support peri-urban farm viability and deepen connection between residents and peri-urban farms. The Washington State Department of Commerce recently released a Request for Proposals (RFP) to study agricultural tourism in order to establish a framework for the State Legislature to consider actions related to accessory uses of small and medium-sized farms, including but not limited to seasonal festivals, private celebrations, education, retail and entertainment.

Support farmers market viability by:

- Eliminating the B& O tax on grants and contracts for farmers market organizations and associations.
- Harmonizing County Health Department Temporary Food Permit fees so that a farmer or processor doesn't have to pay in every County where they sell.
- Recommending state agencies to vet new programs targeting direct marketing farmers to work with WSFMA on program design.
- Ensuring farmers markets are well resourced for a statewide marketing or "brand" program roll out.

Program Spotlight: Market Access | IRC New Roots

For many urban farmers, access to farmers markets as a venue for selling their produce is key to financial wellbeing. In fact, Pressman et al. (2016) found that 40.7% of urban farmers rely on farmers markets or farm stands as their key marketing outlet. Unfortunately, building connections between producers and markets remains a challenge. Urban farmers need robust distribution channels to bring products to market, but building these pathways requires collaboration with local businesses, food banks, farmers markets, and community-based organizations.

Some urban agriculture programs do not prioritize financial capital – such as profitability through market access – and instead focus on the environmental and social benefits of their work. River City Youth Ops, spotlighted as **Case Study #3** is one example. The example below highlights a program that prioritizes both market access and community support.

International Rescue Committee's (IRC) New Roots

The IRC New Roots program centers on helping refugees establish food and financial security while also engaging meaningfully with their new community. The program includes 66 sites across 13 U.S. cities; in Seattle, New Roots' 6 gardens and farm sites have facilitated more than 36,000 pounds of free food distribution across nearly 2,000 households. One of these gardens – the Namaste Community Garden in Tukwila – has enabled Bhutanese refugee farmers to maintain their cultural heritage and grow food the way they did at home in Bhutan. New Roots also hosts educational workshops about local market and wholesale opportunities to assist New Roots farmers in selling their produce.

Tukwila Village Farmers Market: IRC New Roots co-founded the Tukwila Village Farmers Market in partnership with the Food Innovation Network. The market serves a dual purpose, as both an accessible venue for entry-level market engagement for New Roots farmers and also a source of fresh, affordable produce for low-income communities in Tukwila. The City of Tukwila advertises the market as a place to buy "fresh produce grown by refugees and immigrants in our community."

Challenge #5: Technical Assistance & Capacity Building

In general, throughout Washington state, there is a need for more accessible, relevant, and expert applied technical assistance (TA) and other resources for highly diversified, smaller-scale, and direct-marketing farms on topics including business development and agricultural production practices. Additionally, there is a particular gap in TA resources specific to serving the needs of urban farmers.

While the challenges faced by urban farms often mirror those of new and beginning farms more broadly, urban farmers typically require more specific and extensive information and guidance tailored to their unique contexts.

"Through my time as a professor, I saw people wanting to become farmers and then they graduate and there's nowhere for them to go. We've lost a lot of these people to other regions that are investing in helping young farmers." – Urban Farmer (Thurston County)

The assistance available to small farms generally is neither adequate nor targeted enough to meet the needs of urban farmers.

Urban and peri-urban farmers need TA in business planning, land sourcing and acquisition, water conservation and irrigation techniques, soil health, crop planning, and market access. Operating successfully on small parcels requires a specific skill set, diversified operations, and often intensive vegetable production. In some cases, hands-on educational pathways and incubator farms are not at sufficient scale to meet demand, may lack adequate funding, or are inaccessible due to language barriers and location. After participating in these programs, some farmers may not have the necessary land and capital to start their own urban farms (see **Challenge #1: Land Access**). TA and capacity-building programs need to be expanded across communities and tailored to meet the needs of new and underrepresented farmers operating in an urban environment.

Traditionally, agricultural extension programs provide expert knowledge and information to farms. Unfortunately, WSU Extension is underfunded and often unable to meet the needs of small farms, let alone urban farms, especially given the significant unmet need for TA support for farming enterprises in rural and peri-urban areas.

If situated more prominently in urban settings, WSU Extension has the potential to create the research base and identify ways to provide TA and capacity building in urban spaces. WSU Extension can address the unique needs of urban farmers through tailored research and educational programs and help build and sustain resilient social and knowledge networks (Diekmann & Ostrom, 2020).

WSDA Regional Markets provides some TA, regulatory guidance, and light business support to small and direct marketing farms. However, the program is not equipped to provide the intensive TA often needed by urban farmers and does not focus on the specific range of goals and benefits of urban farms. The same goes for other agricultural resource non-profit organizations that try to help small farm enterprises.

Federal and state funding exists to support urban area farmer success, including access to markets. At the federal level, the USDA Office of Urban Agriculture and Innovative Production (OUAIP), newly formed in 2020, provides funding to support "urban, small-scale, and innovative producers." From 2020 through 2023, urban agriculture efforts in Washington received $1.4 million in grant funds from OUAIP (U.S. Department of Agriculture, n.d.-b).

WSDA's Local Food System Infrastructure Grant Program provides funding to improve local food system post-harvest infrastructure and market access. Though the grant program is not focused on urban or peri-urban farms, the program has funded local food system infrastructure projects that benefit several of the urban or peri-urban farming efforts we learned about through this study. The program granted a combined total of $2 million to eligible enterprises in Clark County, King County, Pierce County, Snohomish County, Spokane County, and Thurston County with its Fall 2023 Grant and Spring 2024 Grant application periods for projects that will benefit urban and peri-urban farming enterprises. (Washington State Department of Agriculture, n.d.-b). For the Spring 2024 grant period, requests for funding totaled almost $19 million dollars – more than ten times the available funding (Washington State Department of Agriculture, n.d.-a).

Technical Assistance & Capacity Building: Solutions and Opportunities

 Particularly relevant for urban agriculture

 Particularly relevant for peri-urban agriculture

Continue to fund the WSDA's Local Food System Infrastructure Grant Program.

Invest in state-level technical assistance and capacity-building support, including business development, market access/readiness, and agricultural production practices specifically geared to the needs and goals of urban farms.

Provide education and TA to landholders (e.g., parks and recreation, transportation, public utilities, etc.) who want to support farmers growing on their land but need more specialized knowledge to do so (e.g., soil management, crop selection, and various farming techniques).

Fund local governments to hire agricultural planners who can provide technical assistance, streamline processes, and seek solutions for farmers when local codes and costs are too much of a burden.

Invest in, scale, and publicize existing TA and capacity building resources and programs. Support a variety of programming including apprenticeships, internships, one-on-one capacity building, and topic specific education that also provide culturally relevant resources and multilingual education. **Increase capacity of various TA providers to serve urban farmers.** Cities, conservation districts, cooperative extension, and community-based organizations all have a role to play. The following are programs we learned about through the literature, interviews, and survey. Programs that could be expanded include:

- **Kitsap Farm Mentor Program**, developed by farmers and the WSU Extension offices in Kitsap and Jefferson Counties, offers a multidisciplinary study in sustainable agriculture. Approved farmer mentors provide comprehensive, hands-on instruction on their farms, supplemented by monthly workshops on topics like livestock systems and soil management. The program aims to support farm mentors in training the next generation of skilled farmers.
- **WSU Cultivating Success/Agriculture Business Planning Courses**. The Cultivating Success program in Washington State aims to increase the number and success of sustainable small farmers and ranchers. It offers educational opportunities that combine classroom learning with hands-on experience, covering topics such as whole farm planning, sustainable crop production, and agricultural entrepreneurship. The program connects students with experienced farmers, providing real-world exposure through a community-based, experiential approach.
- **The Washington State Department of Labor & Industries Farm Internship Pilot Program** offers a unique opportunity for interns to gain hands-on experience in farming practices on small farms. This program, now expanded statewide and made permanent, allows interns to work without the requirement of minimum wage, focusing instead on educational and practical farming activities. Interns receive industrial insurance protections while participating, ensuring their safety. The program encourages farms to provide a supportive educational environment, fostering the development of agricultural skills and knowledge.
- The **SAgE Collaborative** is a partnership involving five community colleges, three universities, and Viva Farms, among other educational institutions and organizations. This

program focuses on providing high-quality education and training at the intersection of sustainability, agriculture, farming, food, justice, and environmental movements. By offering specialized courses, certificates, degrees, and practical field experience, SAgE prepares students for careers in these fields.

- **Latino Educational Training Institute (LETI)** is a cultural hub that offers trainings, workshops, and community events to the Latino community in Snohomish County. LETI provided educational workshops to residents that included guidance on storing and using rainwater for garden beds (Increasing Food Security, One Garden Bed at a Time, 2023).
- The **Tilth Alliance's Urban Farms & Gardens** program focuses on supporting and promoting urban agriculture in Seattle and the broader King County area. The program provides resources, education, and technical assistance to urban gardeners and farmers, helping them grow food in a sustainable and environmentally friendly manner. It supports community-driven food production, improves access to fresh produce, and fosters community engagement through initiatives like community gardens, urban farms, and educational workshops. The program aims to enhance local food systems, promote sustainability, and empower communities to grow their own food.
- **King Conservation District (KCD)** supports urban farmers in Washington State through personalized technical assistance, educational workshops, and training sessions on sustainable farming practices. They offer grant programs to fund infrastructure improvements and market access initiatives, and foster community partnerships with local organizations, schools, and groups to create a robust support network for urban agriculture.

Support new and deepen existing incubator farms and couple incubator farms with land access program, such as:

Viva Farms supports new farmers and promotes a sustainable local food system. As Washington's first bilingual farm incubator, it offers services in English and Spanish. In 2017, Viva Farms expanded to a 45-acre property in Skagit County and launched another site in King County in 2018. The King County site includes a 10-acre parcel and a student farm. The program's multiyear educational design fosters peer networking and social learning, with many participants continuing to farm. The 9-month training includes organic agriculture, covering sales, marketing, business planning, and hands-on farming. Graduates leave with a business plan and can join the incubator for ongoing support. Challenges include land access, infrastructure, and funding. Viva Farms helps farmers with leases, financial support, water access, and working with the Washington Water Trust on water rights. Partners include the Black Farmers Collective, Washington Farmland Trust, 21 Acres, Living Well Kent, and the International

"Viva Farms is an amazing organization that has stewarded many new farmers. However, even though organizations like Viva and Black Farmer's Collective are providing much needed access to land and knowledge resources, many new farm businesses drop out within the first 5 years because of how untenable it is financially in our area. I think we need to have a bigger focus on supporting these small businesses through business training and small business development grants." - Peri-Urban Farm (King County)

Rescue Committee (IRC) (King County Department of Natural Resources and Parks Blog, 2024).

Fund comprehensive agriculture/ food systems/urban farming programs within conservations districts such as those that exist in King, Snohomish, and Pierce. CDs administer capacity building programs (infrastructure purchase assistance, specialized equipment rental, etc.) and TA. For example,

Pierce Conservation District (PCD) plays an important role in promoting urban agriculture in Pierce County, Washington, through its Harvest Pierce County program, which supports community gardens, urban farms, and various initiatives aimed at enhancing food security, community engagement, and sustainable agriculture practices. Harvest Pierce County began as a grassroots initiative to support community gardens and has since grown into a comprehensive program under PCD, initially focused on addressing childhood obesity through community gardening and expanding to include urban farming, gleaning projects, and farm education. Today, Harvest Pierce County supports over 90 community gardens, orchards, and food forests, fostering a network of local food projects that benefit the community. One of the standout successes of Harvest Pierce County is the establishment of the Farm Incubator Program, which includes the Gas Farm and other urban farm sites, providing aspiring farmers, particularly those from BIPOC communities, with access to land, resources, and training. The program's participatory approach and emphasis on equity have helped many new farmers establish successful agricultural ventures. Additionally, the Gleaning Project and Veggie Co-Op initiatives have contributed to local food security by redistributing surplus produce to food banks and community members in need.

Refer to the table below titled, **"Technical Assistance & Capacity Building: Examples of Conservation District Activity"** for additional information.

Agricultural extension is well suited to facilitate learning to advance agriculture in urban regions. **Fund extension services to fulfill their mission in urban settings.** Support local extension offices to work alongside farmer groups and build programming that can address needs.

Develop an office responsible for helping farmers understand regulatory guidance: City agencies could develop offices to support urban agriculture and coordinate efforts with county and state partners at each level of government. These offices would support farmers with understanding regulations, permits, licenses, water use, etc. that currently inhibit farmer success.

Fund grant programs that are reaching BIPOC farms in urban settings to support much needed start-up purchases. To date, 60% of Tilth Alliance's Washington State Organic and Sustainable Farming Fund has been awarded to BIPOC farms in urban settings to support much needed start-up purchases such as storage and equipment.

Program Spotlight: Technical Assistance & Capacity Building | Black Farmers Collective (BFC)

Overview: In its successful application to USDA, the BFC noted that producers in their organization have limited awareness of/access to support services and funding; evidence-based sustainable farming practices; and business management expertise. The BFC successfully secured a USDA grant which will support BF's educational programming for underrepresented farmers in western Washington. See here for more details: Leveling the fields in western Washington: Black Farmers Collective receives USDA grant to lower barriers for underrepresented farmers.

Impact: USDA's funding will support BFC's efforts to build a Black-led food system by developing a cooperative network of food system actors, acquiring and stewarding land, facilitating food system education, and creating space for Black liberation in healing and joy. In its successful application to USDA, the organization noted the following issues facing producers it serves: Limited awareness of/access to: a) support services/funding; b) evidence-based sustainable farming practices; and c) business management expertise. The BFC, a nonprofit composed of socially disadvantaged farmers, in partnership with the King County Department of Natural Resources and Parks will also provide technical assistance and outreach services to 45 to 65 underserved small farms in the three most populous counties in Washington state.

Technical Assistance & Capacity Building: Examples of Conservation District Activity

Organization	Overview	Example Program Activity
Cascadia CD	In 2018, Cascadia CD's Urban Agriculture Program supported TA, training, education, and infrastructure for community members to steward urban green spaces (Cascadia Conservation District, 2019).	The Urban Agriculture Program provided TA on topics including composting, container gardening, and lawn irrigation and care.
Mason County CD	Mason County CD partnered with the HOPE Garden project, a local organization that teaches urban gardening to youth and received funding from the National Association of Conservation Districts (NACD) Urban Agriculture Conservation Grant Initiative.	This funding allowed the Mason County CD to create its first community garden in a low-income neighborhood and to utilize cultural ambassadors to begin building new relationships with Hispanic and veteran residents.

Organization	Overview	Example Program Activity
Palouse CD	In 2022, Palouse CD received funding from SCC to provide TA to farmers (National Association of Conservation Districts, 2022). Palouse CD partnered with Community Action Center (CAC) to host local community garden tours. By partnering with CAC, an established organization targeting food insecurity in the area, Palouse CD built upon CAC's existing systems and capacities which helped their programming reach even more community members.	Palouse CD used funding to implement hands-on experiences and TA in partnership with the Pullman Community Garden at Koppel Farm. The CAC distributed 700 fruit and vegetable plant starts to communities across the Palouse and established a new garden at the Pullman Community Garden.
Spokane CD	With funding from NACD, the Spokane CD has been working since 2016 to foster urban food production among local communities (National Young Farmers Coalition, 2024).	With funding in 2023, Spokane CD established the Scale House Market and Learning Kitchen as a permanent farmers market in one of Spokane's largest designated food deserts.

Case Studies

The following three case studies spotlight successful examples of urban agriculture projects that have benefited communities across Washington State through the cultivation of community, financial, and environmental capital. Using information collected during interviews and through an online search, each case study highlights a variety of impacts, challenges, and lessons learned.

Three case studies have been selected that highlight urban agriculture projects in Tacoma, Seattle, and Spokane. The information is organized into a narrative overview of the organization, a summary of key benefits and community impacts, lessons learned, and the most pressing challenges faced in each example. The case studies are numbered for clarity, but are *not* presented in order of relevance, importance, or impact.

Case Study #1: Tacoma Urban Land Trust (TULT)

Tacoma | Food security and cultural exchange for underserved communities.

Mission: The Tacoma Urban Land Trust (TULT) intends to acquire and preserve green space in Tacoma that will connect, nourish, and sustain our diversity.

Overview

In the early 1990s, Bob Gallucci and Father Bill "Bix" Bichsel began organizing to improve Tacoma's Hilltop neighborhood and founded a 12-bedroom hospitality house for unhoused and mentally ill adults called Guadalupe House. In 1992, the neighboring vacant lot was transformed into a private garden for the house's residents. The following year, Carrie Little - who would later work to transform this garden into Tacoma's first Community Supported Agriculture (CSA) operation - came upon the garden and asked if she could help with its cultivation. With her help, and the hard work of many other volunteers, the garden soon blossomed into a productive source of fresh produce for the community. Today, that small-scale garden project – now called the Gallucci Learning Garden - has expanded into the Tacoma Urban Land Trust (TULT), which manages three community gardens/orchards.

Benefit and Impact

Even in the early years of this project, the garden outside Guadalupe House was producing food for residents of the house and for donation to the St. Leo's food pantry, with excess being brought to Tacoma's budding farmer's market. After turning a small profit by selling produce from the back of a pickup truck - around $500 the first year, according to Carrie Little's estimates - the stewards of the gardens realized the potential to expand the project. Today, TULT's gardens have a significant impact on the local community:

- **Food production.** The Gallucci garden alone produced nearly 1,000 pounds of produce (including blueberries, figs, garlic, onions, and others) in 2020, the majority of which was distributed to neighborhood organizations like the Hospitality Kitchen. As urban areas across the country are at risk of becoming food deserts, Tacoma's Hilltop neighborhood benefits greatly from the security that comes from these community-run gardens.
- **Knowledge-sharing**. The Gallucci Learning Garden hosts mentoring opportunities for seniors to share their gardening knowledge with young and inexperienced farmers and for people from different cultures to share their traditional gardening techniques. Similarly, TULT's Viet Huong Community Garden, largely run by South Vietnamese gardeners, provides an opportunity for the protection and proliferation of culturally significant gardening practices.

- **Community-building and education.** In addition to cultural exchange, these urban gardens serve as a community meeting-place for events and classes. Community members are invited to free educational events on topics like composting, planning, and harvesting, and can benefit from learning from experienced gardeners in their community.

Lessons Learned

The small garden outside of Guadalupe House was able to transform into the Tacoma Urban Land Trust thanks to the support of the community, grant opportunities, and years of hard work by the organizers and volunteers. In examining the challenges and successes faced by TULT in the Gallucci Garden project over the decades since its inception, we can gain insight into the most critical elements leading to the garden's success.

- **Funding and support are critical.** The project expanded significantly when the garden's managers won a $30,000 grant through the Urban Resource Partnership (URP). In 2000, as property values in the neighborhood increased, it became necessary to form a land trust to officially purchase the lots that housed the gardens. One of the lots was owned by the Hospitality Kitchen, to which excess produce from the gardens was being regularly donated; the organization donated the land to the formation of the trust. Additionally, the New Neighborhood Council through the city of Tacoma donated $120,000 for the purchase of another large parcel of land.
- **Productive gardens support well-rounded communities.** Grant funding for the project was used to hire unhoused people to work in the gardens, clean up trash, clear weeds, and continue cultivating the land. This would be seen as a transformative opportunity for the community, as people in need could find temporary housing in Guadalupe House and gainful employment in the adjacent garden. For the project's leaders, this was the true concept behind the gardens: not just providing fresh food for local residents, but providing a pathway to success for people in need.

Challenges

- **New development.** As land values in the neighborhood continue to increase, developers are taking the opportunity to put up new apartment buildings in the area. The stewards of the Gallucci garden worry that the proposed 171-unit apartment complex nearby would block the garden's scenic view and potentially decrease sunlight on the plot, impacting plant growth.

Case Study #2: Tilth Alliance's Rainier Beach Urban Farm & Wetlands (RBUFW)

Seattle | Healthy food, education, and a sense of community in Seattle.

Mission: RBUFW is a city park where we come together to grow food, foster community, and work to restore the wetlands through powerful partnerships. [Source]

Overview

In 1974, spurred on by the reported loss of small farms to larger industrial ventures, a group of farm and food activists formed Seattle Tilth, which would merge in 2016 with the Cascade Harvest Coalition and Tilth Producers to become the Tilth Alliance. The Tilth Alliance supports a whole host of activities, including 5 urban farms; this case study will highlight the work being done at Rainier Beach Urban Farm & Wetlands (RBUFW). RBUFW dates back to 2010, when the site's 72-year-old Atlantic Street Nursery managed by the city's Parks & Recreation Department (SPR) was consolidated elsewhere. By 2011, Tilth Alliance and the Friends of RBUFW were working to create a 10-acre site dedicated to producing and distributing organic food, promoting environmental education, and restoring the wetland ecosystem. Throughout the site's transformation into a productive urban gardening hub, the land has maintained its purpose of serving as a public-access city park under the Parks Department's ownership.

Benefit and Impact

RBUFW is a truly multi-faceted community asset. In addition to producing and distributing large amounts of fresh produce, it also provides educational opportunities for underserved youth, garden education programs, small business incubation, an educational community kitchen, and land access in a restored wetland for both farmers and community members.

- **Food production.** The urban farm produces more than 20,000 pounds of fresh produce each year. This produce is shared with community members through free U-pick areas, monthly community dinners, and a neighborhood CS) program that provides boxes of fresh produce weekly throughout the summer months.
- **Community farm stand.** Food and flowers grown on the farm are sold through the on-site farm stand alongside other locally sourced agricultural products. These products are made accessible to the community through a self-identified sliding scale and a discreet checkout system. In addition to providing affordable healthy food to the community, the stand also offers volunteer opportunities for community members, including at-risk youth.
- **Community support.** The on-site community kitchen provides a community meeting-place in which people can learn about food preparation, kitchen skills, and nutrition through classes and community dinners. It was the first example of a functional community kitchen on Seattle Parks & Recreation land. Immigrants, refugees, seniors are brought to Rainer Beach to be introduced to the community resources (such as the pay-what-you-can farm stand) so they feel comfortable engaging with the garden/resources on their own in the future.

- **Education.** On school field trips, middle school students can learn about ecology through lessons on water quality monitoring, invasive species removal, and restoration work, while elementary school students are taught the fundamentals of how food grows and how to care for plants. Other educational programs hosted in the site's 1,800 square foot classroom building and the community teaching kitchen, including a kids' summer camp as well as programs for adults, center on gardening, beekeeping, and the importance of native plants, fruit trees, berries, and a healthy wetland ecosystem.

Lessons Learned

As Seattle's largest urban farm, the Rainier Beach Urban Farm & Wetlands demonstrates that a truly multi-use gardening space – focused on education, food production, community programs, and ecological restoration for the wetland ecosystem – can thrive in an urban environment. Tilth's Community Education Manager, **Chris Hoffer,** participated in an interview for this report and helped identify some key lessons learned:

- **Understanding and highlighting intersections.** RBUFW produces large quantities of fresh produce each year, but the benefits extend far beyond food production. Being able to understand and communicate those intersecting benefits – both short- and long-term – is critical when securing community and funding support. Certain grant programs, for example, may not explicitly support food security endeavors, but may support the other needs being met by a community garden. Organizers must understand how to tell the story of their project to garner as much support as possible.
- **Navigating regulations can be challenging on Parks land.** When gardening on Parks Department land, it is critical to establish a secure relationship with the department to ensure that the park still meets the needs of a public space. For RBUFW, navigating the requirements of SPR can be a challenging learning curve, but absolutely necessary to the ongoing success of the project.

Challenges

- **Longevity and land access**. Although RBUFW is well-established on its plot of land, Hoffer acknowledged that smaller or newer urban farms may not experience the same level of certainty. Urban farms on church property, school grounds, housing communities, and so on are subject to the whims of the landowner, and may ultimately disappear if the main stewards of the garden relocate or abandon the project. For true longevity, an urban farm needs a secure lease.
- **Managing the costs.** Expenses relating to maintenance, utilities, and operating costs for things like cleaning the public restrooms tend to fall on Tilth Alliance and the Friends of RBUFW, despite the use of SPR land. It can be difficult for long-term ongoing projects to secure new grant funding, so any unexpected management costs may be especially challenging to handle as they arise.

Case Study #3: River City Youth Ops

Spokane | Whole-family wellbeing through urban gardening with youth.

Mission: River City Youth Ops — formerly Project Hope Spokane — creates opportunities for youth enrichment in their neighborhoods through community engagement, job training, and education.

Overview

River City Youth Ops (RCYO) officially became established as a 501(c)3 nonprofit in 2008 under the name Project Hope Spokane, although their work to engage with youth in the West Central neighborhood of Spokane through urban farming was already ongoing at the time. The project emphasizes restorative community engagement, job training, and education for local young people, all while strengthening the local environment.

Although RCYO's community-driven work has been hosted at different sites over the years – a hallmark of many urban agriculture projects, given the often-tenuous nature of land access agreements – the organization has continued to provide benefits to the local community, including an annual farm-to-community harvest dinner, volunteer opportunities with community partners, and the sale of fresh produce.

Benefit and Impact

As an urban farming project, RCYO benefits the West Central neighborhood through place-based gardening and food sharing. But according to **Stevie Watson** and **Kate Burke**, who participated in an interview for the development of this report, the benefits of their program extend well beyond food access. At its core, RCYO empowers local youth to improve their community, experience social and emotional learning, and gain concrete skills to be applied in all aspects of their lives, including money management and employment skills.

- **Youth education.** In the garden, young people learn skills related to growing and distributing food, including planning and cultivating a garden, soil testing, composting, irrigation, and weed and pest control. They also benefit from mentorship and informational visits from local leaders, including on topics ranging from money management to kitchen skills like making jam from fresh fruit.
- **Workforce development through a food systems perspective.** RCYO hosts volunteer opportunities for kids aged 11-13, and paid employment opportunities for youth aged 14-18. In previous years, youth participated in a free career pathway assessment to learn more about their natural strengths, as well as a resume workshop.

- **Whole-family wellbeing.** Although RCYO's programming is primarily focused on youth engagement with their local environment, it also recognizes the importance of supporting a healthy home life for children. This includes emotionally regulating with children in the gardens through offering them the opportunity to talk with adult mentors about topics like school and their interests while identifying stressors at home and providing a safe space for processing emotions.

Lessons Learned

Through the cultivation of community partnerships and networking, RCYO hopes to expand their current programming to maximize their impact on the local community. In over 15 years of working towards this goal, several key lessons have emerged:

- **Having reliable, permanent land access is vital.** Without a permanent location, RCYO faces the possibly of needing to rebuild every year. Land agreements with homeowners may not have built-in infrastructure for things like water access and requisite farming equipment, while building a relationship with the city government to farm on open green space is a slow-moving process. In order to fully realize the potential benefits of urban gardening, it is critical to have long-term access to farmable land.
- **Vandalism is not a key challenge.** Rather than intentional vandalism, minor harm done to the garden is more likely the result of curiosity from community members, according to the stewards of the RCYO garden. It's not an insurmountable problem to navigate passerby pulling up unripe carrots, for example; the solution could be as simple as putting up a sign to indicate when the produce will be ready to harvest.
- **Partnerships support well-rounded community programming.** During the 2023 summer program, a group of River City youth supported the work being done by Our Place Community Outreach Center, helping with the Center's no-barrier food, clothing, and hygiene bank. The youth were able to learn from this experience while also supporting the Center's work, further destigmatizing access to community resources across the board. Additionally, RCYO has partnered with Legacy Learners and the City of Spokane to offer the *STEAM in the Garden* program, which educates youth on topics relating to science, technology, engineering, arts, and mathematics, all as they connect to recycling and other pro-gardening activities.

Challenges

- **Land access.** For RCYO, not having a secure home base is a critical challenge to the consistency and efficacy of place-based programming. The urban farm relocated in 2024, which required some rebuilding; this will likely only continue to happen until the program is able to acquire a long-term lease. RCYO staff hope to secure a permanent location with land to house the gardens and a building to serve as a meeting-place for youth and additional programming. They anticipate a whole host of new opportunities would accompany the move to a new and permanent space.

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References

1. Agricultural activities and forest practices—Presumed reasonable and not a nuisance—Exception—Damages. RCW 7.48.305. https://app.leg.wa.gov/RCW/default.aspx?Cite=7.48.305
2. American Farmland Trust. (2022). *Save Washington farmland*. https://farmland.org/save-washington-farmland/
3. Berger Partnership. (2021). *2021 WASLA Award Winner – Rainier Beach Urban Farm & Wetland*. ASLA Washington. https://www.wasla.org/2021-wasla-award-winner---rainier-beach-urban-farm---wetland
4. Bick, C. (2020, June 30). Farm Stand in Rainier Beach Provides Free and Low-Cost Produce for the Community. *South Seattle Emerald*. https://southseattleemerald.com/2020/06/30/farm-stand-in-rainier-beach-provides-free-and-low-cost-produce-for-the-community/
5. Bones, A. (2024, May 1). Local Government-Supported Urban Agriculture Adds Equity and Climate Change Benefits for the Public. *MRSC*. https://mrsc.org/stay-informed/mrsc-insight/may-2024/urban-agriculture
6. Broadway, M. J., & Broadway, J. M. (2011). Green Dreams: Promoting Urban Agriculture and the Availability of Locally Produced Food in the Vancouver Metropolitan Area. *Focus on Geography*, 54(1), 33-41.
7. Cast Architecture. (n.d.). *Rainier Beach Urban Farm and Wetlands Classroom building – community design*. https://www.castarchitecture.com/rainier-beach-urban-farm
8. City of Olympia. (2024). *Olympia Urban Farm Park Feasibility Report: Olympia Urban Farm Park*. https://olympia.legistar.com/LegislationDetail.aspx?ID=6585886&GUID=3DF0BE29-9447-4DC1-B940-C734C40C35AE
9. City of Seattle Office of Sustainability & Environment. (2024). Native Foods Listening Session: Final Report (Publication No. 5.31.2024). https://www.seattle.gov/documents/Departments/OSE/FoodAccess/Food%20Action%20Plan/NativeFoodsListeningSession_FinalReport_Pub5.31.2024.pdf
10. City of Tukwila. (2022, July 27). *Tukwila Village Farmers Market*. https://www.tukwilawa.gov/event/farmers-market/2022-07-27/
11. Clark County Public Works. (n.d.). *78th Street Heritage Farm*. Clark County Washington. https://clark.wa.gov/public-works/78th-street-heritage-farm
12. Clark County Public Works. (2020). *Master plan adopted March 10, 2020*. Clark County. https://clark.wa.gov/sites/default/files/dept/files/public-works/Master%20Plan%20Adopted%20March%2010_2020.pdf
13. Diekmann, L., Healy, S., August, R., & Huras, P. (2020). More than food: The social benefits of localized urban food systems. *Frontiers in Sustainable Food Systems*, *4*, Article 534219. https://doi.org/10.3389/fsufs.2020.534219

14. Diekmann, L. O., & Ostrom, M. R. (2020). Urban Agriculture and Extension: Building Capacity for Food Systems Change. Journal of Agriculture, Food Systems, and Community Development, 9(4), 1-14. doi:10.5304/jafscd.2020.094.001
15. Dubbeling, M., van Veenhuizen, R., & Halliday, J. (2019). Urban agriculture as a climate change and disaster risk reduction strategy. Field Actions Science Reports. *The Journal of Field Actions*, (Special Issue 20), 32-39.
16. Dvorak, J. (2011). Carrie Little and the Tacoma Community Gardening Movement. *Tacoma Community History Project.*
17. Dvorak, J. (2012). *Growing a greener Tacoma: The historical roots of Tacoma's urban gardening movement.* [Master's thesis, University of Washington]. https://digital.lib.washington.edu/server/api/core/bitstreams/1d2a1e90-feff-468a-a883-3fcb7453e579/content
18. Food Innovation Network. (2019, July 31). *New Roots: building thriving gardens and communities.* https://foodinnovationnetwork.org/news-stories/news/2019/07/new-roots-building-thriving-gardens-and-communities/
19. Garden-Raised Bounty (GRuB). (n.d.). History of the GRuB Farm. https://www.goodgrub.org/history
20. Golden, S. (2013). Urban agriculture impacts: social, health, and economic: An annotated bibliography. UC Davis, Davis, CA. https://sarep.ucdavis.edu/sites/g/files/dgvnsk5751/files/inline-files/UAAnnotatedBiblio_2013.pdf
21. Gomez-Martinez, F., Beurs, K.M. de, Koch, J., Widener, J., (2021). Multi-temporal land surface temperature and vegetation greenness in urban green spaces of Puebla, Mexico. *Land* 2021; 10(2), 155; https://doi.org/10.3390/land10020155
22. Gripper A. B. (2023). Practices of Care and Relationship-Building: A Qualitative Analysis of Urban Agriculture's Impacts on Black People's Agency and Wellbeing in Philadelphia. *International Journal of Environmental Research and Public Health, 20(*6), 4831. https://doi.org/10.3390/ijerph20064831
23. Grivas, E.B. (2024, April 20). Tilth Alliance at 50: This group revolutionized how we eat and compost. *The Seattle Times*. https://www.seattletimes.com/life/outdoors/tilth-alliance-at-50-this-group-revolutionized-how-we-eat-and-compost/
24. 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(2), 164–173. https://doi.org/10.1038/s44284-023-00023-3
25. Healthy Food Policy Project. (2024, February). *Zoning for Urban Agriculture: A guide for updating your community's laws to support healthy food production and access*. https://healthyfoodpolicyproject.org/wp-content/uploads/Zoning-for-Urban-Agriculture-2.pdf
26. Hill, M. (n.d.). *Namaste Community Garden.* Edible Seattle. https://www.edibleseattle.com/features/namaste-community-garden/
27. Ilieva RT, Cohen N, Israel M, Specht K, Fox-Kämper R, Fargue-Lelièvre A, Poniży L, Schoen V, Caputo S, Kirby CK, et al. The Socio-Cultural Benefits of Urban Agriculture: A Review of the Literature. *Land*. 2022; 11(5):622. https://doi.org/10.3390/land11050622
28. Igoe, B., Iberle, C., and Walsh, S. (2022). Food Action Plan Update Stakeholder Engagement Report Back. City of Seattle. https://www.seattle.gov/documents/Departments/OSE/FoodAccess/Food%20Action%20Plan/FAP_StakeholderEngagement_ReportBack_July2022.pdf
29. Ilieva, R. T., Cohen, N., Israel, M., Specht, K., Fox-Kämper, R., Fargue-Lelièvre, A., & Blythe, C. (2022). The socio-cultural benefits of urban agriculture: a review of the literature. *Land, 11*(5), 622.

30. International Rescue Committee. (2019, December 5). *New Roots, new opportunities*. https://www.rescue.org/announcement/new-roots-new-opportunities
31. International Rescue Committee. (2021, September 1). *IRC's New Roots program: Growing good from the ground up*. https://www.rescue.org/report/ircs-new-roots-program-growing-good-ground
32. IRC New Roots. (n.d.). *Welcome to New Roots in Seattle*. https://www.newrootsseattle.org/
33. James, K. (2014). *Rainier Beach Urban Farm and Wetlands: Strengthening Diversity for Community Resilience*. [Master's thesis, University of Washington]. https://digital.lib.washington.edu/researchworks/items/b8865027-880a-414c-91c2-57ce3b29c35c
34. Jha, S., Egerer, M., Bichier, P., Cohen, H., Liere, H., Lin, B., Lucatero, A., & Philpott, S. M. (2023). Multiple ecosystem service synergies and landscape mediation of biodiversity within Urban Agroecosystems. *Ecology Letters*, 26(3), 369–383. https://doi.org/10.1111/ele.14146
35. King County Department of Natural Resources and Parks. (2022, September 1). Keeping King County Green: Horseneck Farm – King County land conservation brings refugee farmers back to the soil so better lives can be grown. https://kingcountygreen.com/2022/09/01/horseneck-farm-king-county-land-conservation-brings-refugee-farmers-back-to-the-soil-so-better-lives-can-be-grown/
36. King County Department of Natural Resources and Parks. (2023, June 29). Keeping King County Green - Leveling the fields in western Washington: Black Farmers Collective receives USDA grant to lower barriers for underrepresented farmers. https://kingcountygreen.com/2023/06/29/leveling-the-fields-in-western-washington-black-farmers-collective-receives-usda-grant-to-lower-barriers-for-underrepresented-farmers/
37. King County Department of Natural Resources and Parks. (n.d.). RainWise program. King County. https://kingcounty.gov/en/dept/dnrp/waste-services/wastewater-treatment/programs/rainwise
38. King County Department of Natural Resources and Parks Blog. (2024, January 25). Viva Farms expanding to serve more farmers in King County through education and land access. King County Green. https://kingcountygreen.com/2024/01/25/viva-farms-expanding-to-serve-more-farmers-in-king-county-through-education-and-land-access/
39. Kirby, C. K., Specht, K., Fox-Kämper, R., Hawes, J. K., Cohen, N., Caputo, S., Ilieva, R. T., Lelièvre, A., Poniży, L., Schoen, V., & Blythe, C. (2021). Differences in motivations and social impacts across urban agriculture types: Case studies in Europe and the US. *Landscape and Urban Planning*, 212, 104110. https://doi.org/10.1016/j.landurbplan.2021.104110
40. Kitsap Conservation District. (n.d.). *GRACE Project*. https://kitsapcd.org/programs/grace-project
41. Malberg Dyg, P., Christensen, S., & Peterson, C. J. (2020). Community gardens and wellbeing amongst vulnerable populations: a thematic review. *Health Promotion International, 35*(4), 790-803.
42. Marshall, M. (2022). Change is inevitable, but is gentrification?. *Journal of Agriculture, Food Systems, and Community Development*, 11(3), 295-296.
43. National Association of Conservation Districts. (2022). *Food system grants awarded to 10 Conservation Districts*. https://www.scc.wa.gov/news/food-system-grants-awarded-to-10-conservation-districts
44. National Association of Conservation Districts. (2024). *NACD Urban and Community Conservation Grant Initiative*. https://www.nacdnet.org/urban/
45. National Young Farmers Coalition. (2022). Building a future with farmers III: Results and recommendations from the 2022 national young farmer survey. https://www.youngfarmers.org/wp-content/uploads/2022/09/NationalSurveyReport22-1.pdf
46. Needles, A. (2021, March 28). Can new apartment towers co-exist with existing urban gardens on Tacoma's Hilltop? *The News Tribune*. https://www.thenewstribune.com/news/local/article250129494.html

47. O'Dea, J. (Director). (2022). *Farming on the Urban Edge: A Five-Part Docuseries*. [Docuseries; online videos]. Peri-Urban Agriculture Network.
48. Otten, J.J., Collier, S.M., Spiker, M.L., Sipos, Y., Drewnowski, A., Buszkiewicz, J., Rose, C., Ismach, A., & Nguyen, E. (2021). *The State of the Washington State Food System During COVID-19: Taking Stock and Looking Ahead*. Center for Public Health Nutrition, University of Washington. https://cms.agr.wa.gov/WSDAKentico/Documents/DO/Communications/WAFS-FinalReport.pdf
49. Palouse Conservation District. (2023). *Drip and Micro-Irrigation Strategies*. https://www.palousecd.org/post/upcoming-talk-02-09-23-drip-and-micro-irrigation-strategies
50. Palouse Conservation District. (2024). Palouse Conservation District 2023 Annual Report. https://www.palousecd.org/post/our-2023-annual-report-is-here
51. Papanek, A., Campbell, C., Wooten, H. (2023). Social and Community Benefits and Limitations of Urban Agriculture. *UF IAS Extension*. FCS3378.
52. Puigdueta, I., Aguilera, E., Cruz, J. L., Iglesias, A., & Sanz-Cobena, A. (2021). Urban agriculture may change food consumption towards low carbon diets. *Global Food Security, 28*, 100507.
53. Raja, S., Campbell, M. C., Judelsohn, A., Born, B., & Morales, A. (Eds.). (2024). *Planning for Equitable Urban Agriculture in the United States: Future directions for a new ethic in city building*. Springer. https://link.springer.com/content/pdf/10.1007/978-3-031-32076-7.pdf
54. Rosan, C. D. (2020). Making urban agriculture an intentional, equitable city redevelopment strategy. *Frontiers in Sustainable Food Systems, 4*, 74.
55. Sbicca, J. (2019). Urban agriculture, revalorization, and green gentrification in Denver, Colorado. In *The politics of land* (Vol. 26, pp. 149-170). Emerald Publishing Limited.
56. Seattle Parks and Recreation. (nd.). *Rainier Beach Urban Farm and Wetlands*. Seattle. https://www.seattle.gov/parks/allparks/rainier-beach-urban-farm-and-wetlands
57. Snohomish Conservation District. (2023). Increasing Food Security, One Garden Bed at a Time. https://snohomishcd.org/blog/tag/urban+agriculture
58. Steenkamp, J., Cilliers, E. J., Cilliers, S. S., & Lategan, L. (2021). Food for thought: Addressing urban food security risks through urban agriculture. *Sustainability, 13*(3), 1267.
59. Tacoma Urban Land Trust. (n.d.). *Gallucci Learning Garden*. https://www.tult.org/gallucci-learning-garden
60. Tacoma Urban Land Trust. (n.d.). *The TULT Story*. https://www.tult.org/tult-story
61. The Cascadia Conservation District. (2019). Conservation Quarterly Winter 2019. https://cascadiacd.org/wp-content/uploads/2024/01/2019-Winter.pdf
62. Tilth Alliance. (n.d.). *Home*. https://tilthalliance.org/
63. Tilth Alliance. (n.d.). *Rainier Beach Urban Farm & Wetlands*. https://tilthalliance.org/our-work/urban-farms-gardens/rainier-beach-urban-farm-wetlands/
64. U.S. Department of Agriculture, Census of Agriculture. (2014, May.). *Farm demographics: U.S. farmers by gender, age, race, ethnicity, and more* [Infographic]. https://www.nass.usda.gov/Publications/Highlights/2014/Farm_Demographics/Highlights_Farm_Demographics.pdf
65. U.S. Department of Agriculture, Climate Hubs. (n.d.). *Urban agriculture and climate change in the Northwest*. https://www.climatehubs.usda.gov/hubs/northwest/topic/urban-agriculture-and-climate-change-northwest
66. U.S. Department of Agriculture, International Climate Hub. (n.d.). *Urban agriculture*. https://www.climatehubs.usda.gov/hubs/international/topic/urban-agriculture
67. U.S. Department of Agriculture, National Agricultural Library. (n.d.). *Urban Agriculture*. https://www.nal.usda.gov/farms-and-agricultural-production-systems/urban-agriculture

68. U.S. Department of Agriculture, National Agricultural Statistics Service. (2021, January 22). *Family-owned farms account for 96% of U.S. farms, according to the Census of Agriculture Typology Report* [Press release]. https://www.nass.usda.gov/Newsroom/archive/2021/01-22-2021.php
69. U.S. Department of Agriculture. (n.d.-a). Office of Urban Agriculture and Innovative Production. https://www.usda.gov/topics/urban
70. U.S. Department of Agriculture. (n.d.-b). *Urban Agriculture and Innovative Production Grants 2020-2023* [Data set]. https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.usda.gov%2Fsites%2Fdefault%2Ffiles%2Fdocuments%2Fuaip-projects.xlsx&wdOrigin=BROWSELINK
71. U.S. Department of Agriculture. (2022, October). Urban agriculture programs guide. Farmers.gov. https://www.farmers.gov/sites/default/files/2022-10/farmers.gov-urban-ag-programs-guide-10-2022.pdf
72. Washington State Conservation Commission. (n.d.). *Farmland Protection and Land Access (FPLA) Program*. https://www.scc.wa.gov/programs/fpla
73. Washington State Department of Agriculture. (2022). *Equity for Underrepresented Farmers and Ranchers Report*. (Report No. AGR PUB 101 965). https://cms.agr.wa.gov/WSDAKentico/Documents/Pubs/Equity-for-Underrepresented-Farmers-and-Ranchers-Report_FINAL.pdf
74. Washington State Department of Agriculture. (n.d.-a). *At a Glance: Awarded Local Food System Infrastructure Grants*. https://agr.wa.gov/departments/business-and-marketing-support/small-farm/infrastructure-grant/awarded-local-food-system-infrastructure-grants
75. Washington State Department of Agriculture. (n.d.-b). *Local food system infrastructure grant funded projects*. https://agr.wa.gov/departments/business-and-marketing-support/small-farm/infrastructure-grant/awarded-local-food-system-infrastructure-grants/funded-lfsi-grants-lists
76. Washington State Department of Ecology. (n.d.). *Reclaimed water*. https://ecology.wa.gov/water-shorelines/water-quality/reclaimed-water
77. Wiskerke, J. S. C. (2012). Sustainable Food Planning: Evolving Theory and Practice, 431–452. https://doi.org/10.3920/978-90-8686-187-3
78. Yeatman, H. *Developing food literacy through food production.* In Food literacy: Key Concepts for Health and Education; Routledge: London, UK, 2016; pp. 205–220.

Appendix A: Stakeholder Interview Guide

Overview

The Washington State Conservation Commission (SCC) has contracted support from our team at Ross Strategic to study opportunities and challenges related to urban agriculture in Washington, as required by House Bill 1552. This research specifically focuses on the following aspects of urban agriculture:

- Food access, community gardens, and urban farms
- Educational opportunities
- Economic and career development opportunities
- Green infrastructure, low-impact development, and climate resilience
- Challenges with access to resources and expertise
- Successes and lessons learned from existing programs
- Funding needs and pilot programs

During the 60-minute interview with Ross Strategic, we would like to hear about your work in urban agriculture, successes and challenges, and recommendations for how urban agriculture can be advanced in Washington. Your responses will remain anonymous, and we won't attribute any responses to you without permission.

Interview Questions

1. What are the biggest challenges related to your work in urban agriculture?
2. What is currently missing in the Washington landscape for urban agriculture to thrive?
3. Where do you see opportunities to advance urban agriculture?
4. Describe the urban agriculture activities that your organization leads and/or is involved with.
5. What are some successes in urban agriculture that you have been part of?
6. What lessons have you learned from this work?
7. What perspectives do we need to consider to ensure draft recommendations from this process will advance equity in urban agriculture?
8. What listservs or organizations would you recommend we partner with to distribute a forthcoming online survey to test out draft recommendations?

Appendix B: Stakeholder Engagement Participants

Focus Group Participants (March 2024)

Organization	Name(s)
King CD	Mary Embleton Miranda Smith
Washington State Conservation Commission	Kate Delavan
Tilth Alliance	Melissa Spear
Washington State Department of Agriculture	Laura Raymond Ivy Fox
WSU Extension	Brad Gaolach

Key Informant Interview Participants (April – July 2024)

Organization	Name(s)
American Farmland Trust	Addie Candib Dani Madrone
City of Seattle	Bridget Igoe
GRACE Project	Diane Fish
GRUB	Deb Crockett
Orting Veterans Farm	Carrie Little
Pierce Conservation District	Kristen McIvor
River City Youth Ops	Kate Burke Stephanie Watson
Spokane Catholic Services	Jesse Hansen
SWW Victory Food Project	Heither Tischbein
Tilth Alliance	Chris Hoffer
Urban Futures Farm	TJ Johnson
Viva Farms	Micah Anderson
Washington Conservation Action	Christina Wong
Urban Area Agrifood System Action-Research Scholar, Food System CARE	Jude Ann Wait

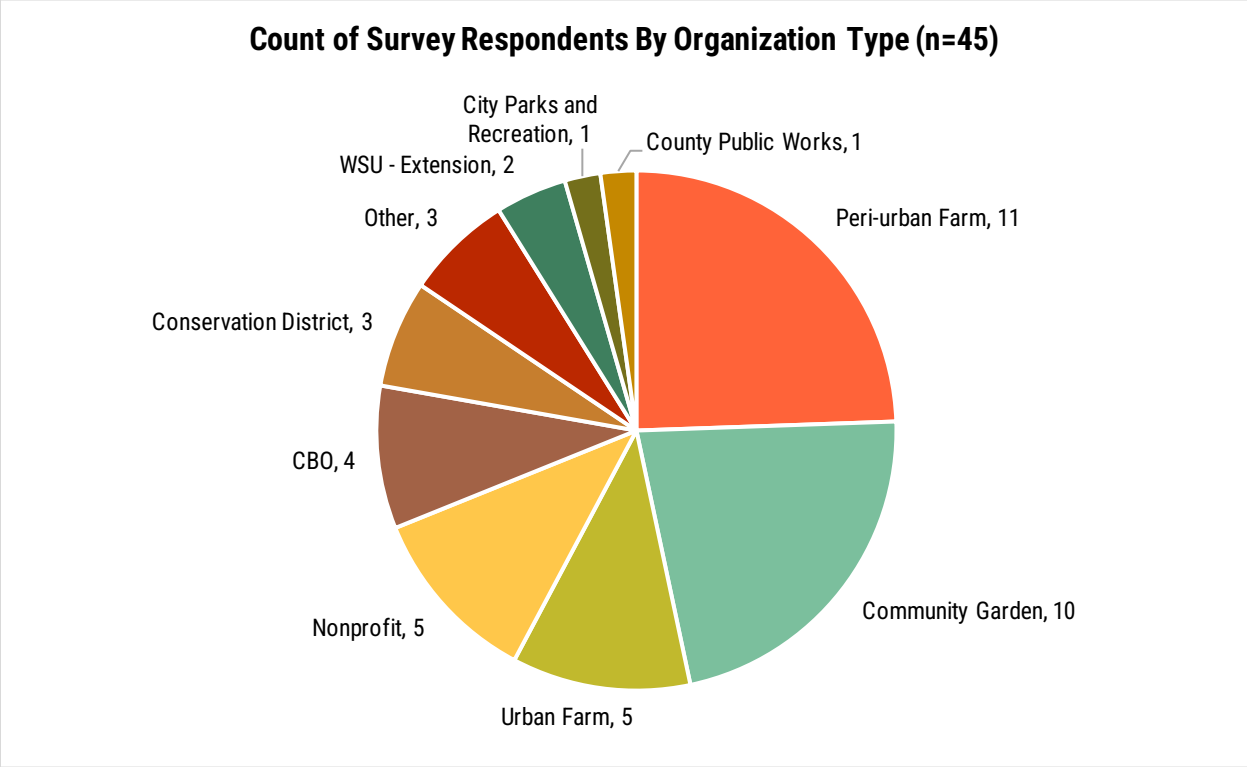
Organization	Name(s)
Whatcom County	Chris Elder
Washington State University, Extension Program	Justin O'Dea

Additional Discussions with Food Policy Forum Members (August 2024)

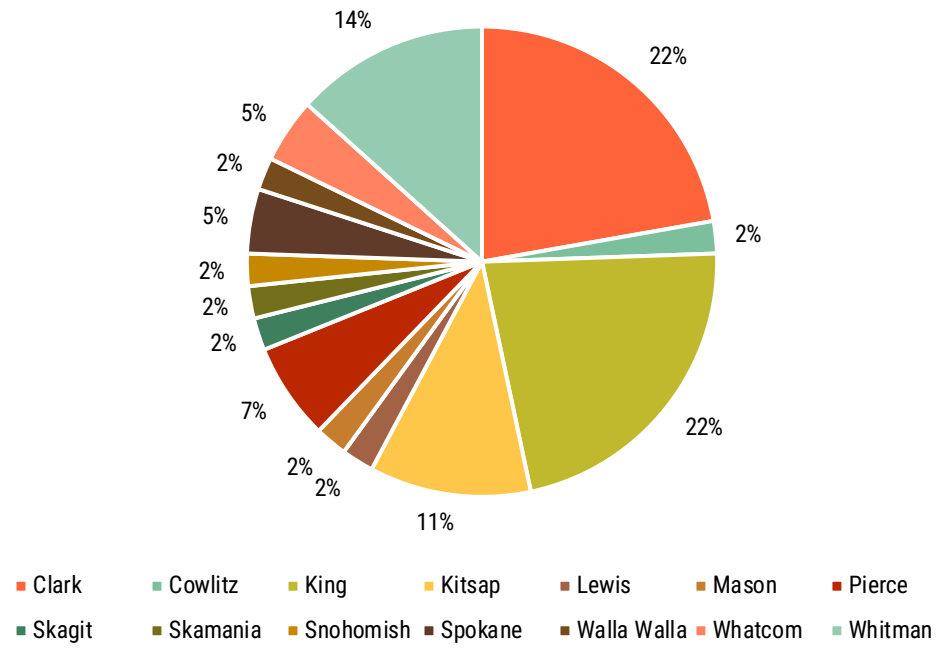
Organization	Name(s)
American Farmland Trust	Addie Candib Dani Madrone
Anti-Hunger & Nutrition Coalition	Claire Lane
Tilth Alliance	Melissa Spear
University of Washington - Food Systems, Nutrition, and Health	Jennifer Otten
Washington State Conservation Commission	Kate Delavan
Washington State Department of Agriculture	Laura Raymond
Washington State Farmers Market Association	Colleen Donavan
Washington Farmland Trust	Nate Lewis
Washington State University - Sustainable Food and Farming Systems, School of the Environment	Marcia Ostrom

Appendix C: Survey Respondent Sector and Demographics

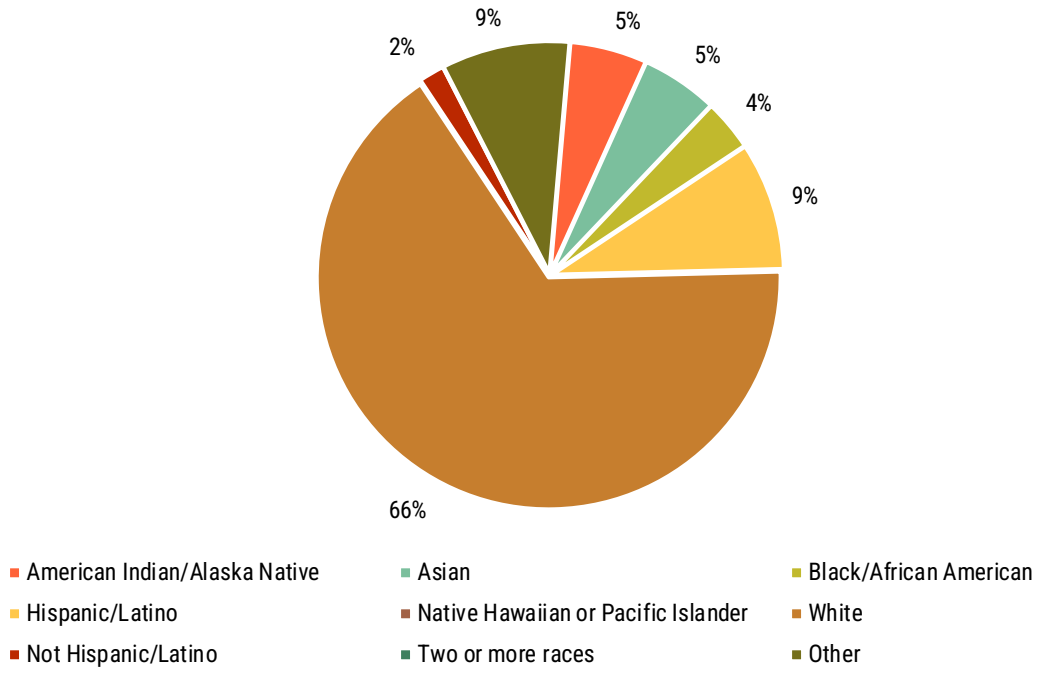
The distributed survey posed several demographic questions, including organization type, region of work, racial/ethnic identity, and gender identity to provide a sense of respondent background and context. Survey respondents represented urban farm, peri-urban farms, community gardens, NGOs, government agencies, and academic institutions. To see the demographics of survey respondents, please see below.

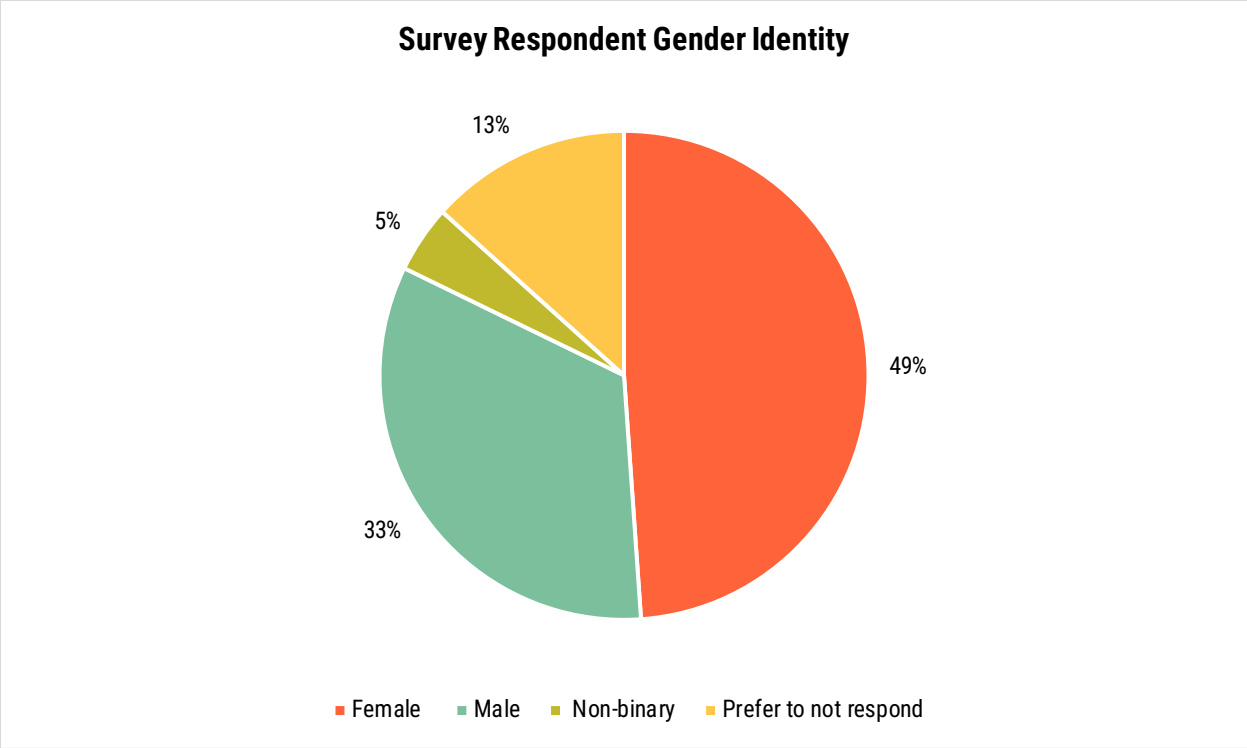


Survey Respondent County Representation



Survey Respondent Ethnic/Racial Identity




Survey Respondent Gender Identity
13%
5%
49%
33%
Female
Male
Non-binary
Prefer to not respond

Appendix D: Additional Resources on Urban Agriculture

As part of this study, the following resources were identified from partners involved in urban agriculture throughout Washington state. These resources can be leveraged by policymakers and other stakeholders to understand how urban agriculture practitioners and organizations are addressing challenges and implementing solutions in their work.

Organization	Resource
ChangeLab Solutions	Seeding the City: Land Use Policies to Promote Urban Agriculture Toolkit, Change Lab Solutions
City of Seattle	Food Action Plan (2024)
Growing Food Connections	Growing Food Connections Local Government Policy Database
Healthy Food Policy Project	Zoning for Urban Agriculture: A Guide for Updating Your Community's Laws to Support Healthy Food Production and Access
National Conference of State Legislature	National Conference of State Legislature Urban Agriculture State Legislation Database
North American Food Systems Network	North American Food Systems Network Community & Agriculture Resilience Audit Tool
Policy Link	Growing Urban Agriculture: Equitable Strategies and Policies for Improving Access to Healthy Food and Revitalizing Communities, Policy Link
Urban Ag Law	Urban Ag Law: Planning and Zoning