

ACKNOWLEDGMENTS



The Vancouver Urban Farming Census 2017-2019 is a project of the Vancouver Urban Farming Society (VUFS).

PROJECT TEAM

Angeli dela Rosa, Project Researcher & Writer Karen Ageson, Project Manager Marc Schutzbank, Project Advisor Shauna MacKinnon, Project Advisor Darby Arens, Graphic Designer



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LAND ACKNOWLEDGMENT

We want to acknowledge that urban farming and this research takes place on traditional, ancestral and unceded territory of the Coast Salish peoples, including the territories of the x^wmeθkweyem (Musqueam), Skwxwú7mesh (Squamish), Stó:lō and Selílweta?/Selilwitulh (Tsleil-Waututh) Nations.

IN RECOGNITION

The original Urban Farming Census was carried out by Marc Schutzbank as part of his masters thesis at the University of British Columbia. We are grateful for the seeds he planted 10 years ago, and for his continued support and guidance for this work, including as project consultant and writer for the 2014-2016 Census (available at urbanfarmers. ca). His thesis was completed in 2012 and can be accessed through the UBC Library:

Schutzbank, M. H. (2012). Growing vegetables in Metro Vancouver: an urban farming census (T).
University of British Columbia. Retrieved from https://open.library.ubc.ca/collectionsubctheses/24items/1.0058494

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EXECUTIVE SUMMARY

We are now 10 years out from the first year of the Urban Farming Census. When the previous Census was released in 2016, the report showed an increase in production, but slowing of growth in how much land was being farmed in the city. Urban farms faced economic challenges to their operations from low returns, high labour costs, insecure land tenure, and restrictive regulations. The report concluded that the City was unlikely to meet its target of 35 urban farms by 2020 without providing tangible support and resources to the sector.

Those conclusions hold true 3 years later. The results of the 2017-2019 Vancouver Urban Farming Census show that revenues from farm sales overall declined by 37% between 2016 and 2019. There are fewer active urban farms, and a number of farms have either left the City or closed down their operations. At the same time, urban farmers are resilient, determined, and driven by values to make the food system more just and sustainable. Urban

farms that remain in the city are showing growth in terms of land area under production. They continue to provide opportunities for city residents to connect with the food system and with each other, while demonstrating what it means to grow food using ecological methods.

Supporting food friendly neighbourhoods

Eleven urban farms participated in the 2017-2019 Census. Two of those farms stopped operating in Vancouver after 2017. Four other urban farms that participated in the 2014-2016 Census are known to be inactive or shut down and did not participate for 2017-2019. Flower farms and beekeepers were invited to take part in the Census for the first time. Only one flower farmer chose to participate. Overall farm production area decreased by 5% between 2016 and 2019. Most of the loss is in land within the Southlands neighbourhood. Farm production area outside the Southlands neighbourhood increased from 4.2 acres to 5.9 acres over the same period.

Empowering residents to take action

When it comes to social impact and community engagement, urban farms continue to shine. Urban farms engaged over 17,000 people in 2019 through events, volunteering, and educational programs. They help city residents connect with the food system, teaching them skills to start their own gardens and how to be more food literate. Urban farms also play a part in growing new farmers by providing opportunities for the farm-curious to get hands-on experience with small scale commercial food production.

Improving access to healthy, affordable, culturally diverse food for all residents

Food and flower sales decreased from over \$750,000 in 2016 to \$477,915 in 2019. Most of the decrease is in restaurant sales, although they continue to make up the highest proportion of farm sales values. The value of CSA and farmers market sales has not shown much growth since 2016. CSA shares increased from 245 shares in 2016 to 283 in 2019.

Making food a centrepiece of Vancouver's green economy

The number of urban farm employees in all categories (full/part-time and seasonal/year-round). decreased

significantly from 2016 to 2019. Nine out of 11 farms reported at least one employee, and the remaining 2 farms were operated solely by the business owner. Wage rates are consistent with the previous Census, starting at minimum wage for farm workers, going up to \$24 per hour for farm managers. For the sector as a whole, labour costs exceed revenues from food and flower sales. This demonstrates the narrow margins in agriculture, and the financial challenges faced by urban farmers in covering costs solely through produce sales. Revenues from grants, fee-for-service, and donations are critical for many farms to stay in operation. Most of these revenues were reported by charitable urban farms, but urban farm businesses also reported receiving a small amount of grant revenues.

Advocating for a just and sustainable food system

Some farms participate in advocacy through more formal channels, serving as members of the Vancouver Neighbourhood Food Networks and Vancouver Food Policy Council. They create green spaces that demonstrate how food can be grown ecologically, and help residents become better informed and empowered food citizens.

understanding Urban Farms

Non-profit urban farms are operated by registered charities or non-profit organizations and can be supported by grants and donations. These farms integrate the sale of farm products with their non-profit goals. Two charities and three non-profit urban farms participated in the current Census and farmed on 5.3 acres in 2019.

Indoor, intensive farms grow high value crops for restaurant, retail, and direct-to-consumer sale on a small footprint of land. Two indoor intensive farms participated in the current Census, but one of them left Vancouver for another jurisdiction after 2017 due to challenges with the City's permitting and licensing process.

Yard-sharing residential farms operate in front and backyards and other small plots of land, usually working with multiple small sites in residential areas. Four yard-sharing farms participated in the current Census but one farm stopped operating after 2017. The 3 remaining yard-sharing farms operated 26 different plots

on 1.2 acres in 2019. One of the yard-sharing farms is structured as a non-profit.

High-tech, capital-intensive farm businesses were mentioned in the previous Census. One farm provided data for 2016 but shut down within the year due to financial reasons caused by inconsistent production. None of the farms in the current Census fit this model and we are not aware of any others in Vancouver. Active examples of this urban farm model are Boston's Corner Stalk Farm, operating out of repurposed shipping containers, and Montreal's Lufa Farms, using large-scale rooftop greenhouses.

One small-scale, diversified farm operates on Agricultural Land Reserve land in the Southlands neighbourhood. They produce a diverse range of farm products and offer educational programs and events for all ages. They are not subject to the city's Urban Farm Guidelines.

BACKGROUND



URBAN FARMING IN VANCOUVER

The Census features data from 11 urban farms that grew farm products for sale within the City of Vancouver between 2017 and 2019. To put this number in context, the City of Vancouver reported 4,960 food assets in 2018¹. Food assets include community garden plots, farmers markets, community orchards, community composting facilities, community kitchens, community food markets, and urban farms. Urban farms may be few in number, but they generate jobs, grow food using organic practices, and help citizens learn skills and connect with the food system.

URBAN FARMING POLICIES

In March 2016, Vancouver City Council adopted Urban Farming Guidelines to recognize urban farming as a legitimate land use and business activity. The Guidelines apply to urban farming in all areas except the South-

¹ Greenest City 2020 Action Plan - 2018-2019 Implementation Update, https://vancouver.ca/files/cov/greenest-city-action-plan-implementation-update-2018-2019.pdf

lands neighbourhood. The new policies were intended as a two year pilot, and staff were directed to work with urban farming stakeholders to evaluate effectiveness and recommend changes. The review process was delayed until the fall of 2019. City staff are scheduled to report their findings and recommendations to Council by the end of May 2020.

The Vancouver Urban Farming Society has identified a number of issues with the City's Urban Farm Guidelines and has published a separate report with policy recommendations to make the Guidelines less burdensome for and more supportive of urban farms. The policy report will be available on the VUFS website (urbanfarmers.ca) by April 2020.

RESEARCH QUESTIONS AND METHODOLOGY

The 2017-2019 Vancouver Urban Farming Census seeks to gather economic and social data of urban farms that were active within the City of Vancouver between 2017 and 2019. To be eligible, farms must grow and sell products within the City of Vancouver. Flower farms and beekeepers who sell honey were invited to participate in the Census for the first time, despite not being subject to the City of Vancouver's Urban Farm Guidelines.

The Census is designed as a survey that can be filled out on an online form or electronic Word document. The full questionnaire is available in the Appendix. Majority of the questions were taken from the 2014-2016 Census survey, which in turn was adapted from the semistructured interview tool developed by Marc Schutzbank for his 2012 masters thesis. New questions (#14 to 25) were added to capture more information about the social and educational impacts of urban farms. The new questions were adapted from a report on urban agriculture indicators published in 2016 by Toronto Urban Growers². The survey data is presented through the framework of the five dimensions of the Vancouver Food Strategy, same as the 2014-2016 Census.



² Indicators for Urban Agriculture in Toronto - A Scoping Analysis, http://torontourbangrowers.org/img/upload/Indicators_AODA.pdf

THE 5 DIMENSIONS OF THE VANCOUVER FOOD STRATEGY

- 1 Support food friendly neighbourhoods
- **2** Empower residents to take action
- 3 Improve access to healthy, affordable, culturally diverse food for all residents
- 4 Make food a centrepiece of Vancouver's green economy
- **5** Advocate for a **just and sustainable food system** with partners and at all levels of government

Data was collected between November 2019 and February 2020. A contact list of urban farms was generated by tapping into the VUFS network, participants from the previous Census, and internet searches for other active urban farms. The final contact list of urban farms comprised 13 urban farms growing mainly vegetables, 2 flower farms, and 3 beekeepers who sell honey. The invitation was also sent to the BC Urban Farmers mailing list operated by VUFS. Eleven urban farms, including 1 flower farm, participated in the Census. Farmers were asked to provide information for their operations

for 2017, 2018, and 2019. Participants received \$75 in recognition of their time and contribution.

DATA LIMITATIONS

Data limitations of the Urban Farming Census continue to be the same as previous years. The questionnaire gathers self-reported data from urban farmers only. Farmers vary in the detail and accuracy of recordkeeping, and not all farmers responded to every question. Data on the social and community benefits of urban farms is limited to urban farmers' perspectives.

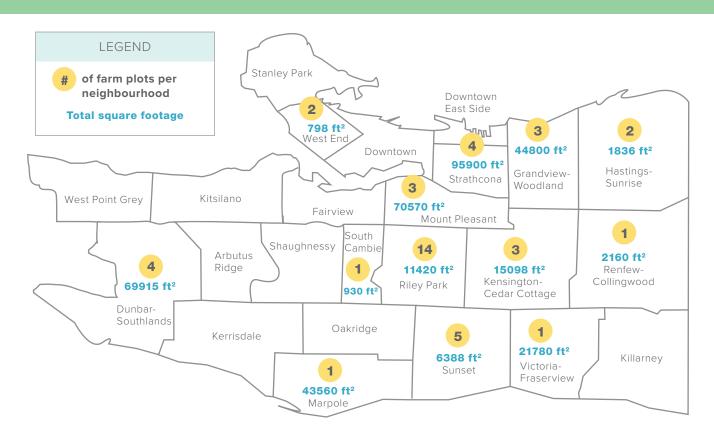
CONTRIBUTIONS TO VANCOUVER FOOD STRATEGY GOALS



The five dimensions of the Vancouver Food Strategy provide the lens for evaluating the Census results. The results below represent the responses from the 11 urban farms who completed the survey. Two farms only submitted data for 2017 as that was the last year they operated their businesses in Vancouver. One farm only started operating in Vancouver in 2018 so they only submitted data for 2018 and 2019. In some cases, respondents did not complete all of the survey questions; for this reason, some results may reflect responses from less than the total number of active farms that year.

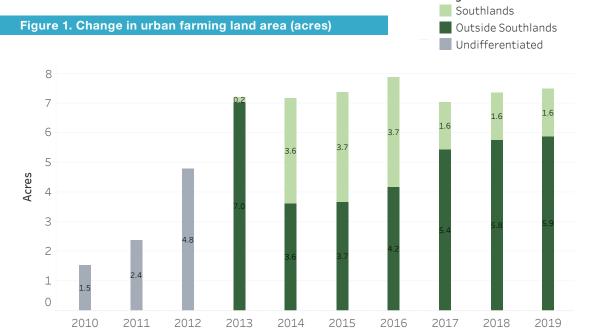
1 Support Food Friendly Neighbourhoods

The map below shows the number of plots and total square footage in urban farm production in each Vancouver neighbourhood in 2019. The neighbourhood with the most farm plots is Riley Park at 14 plots. The neighbourhood with the most square footage in production is Strathcona at 95,900 square feet (2.2 acres).



LAND IN PRODUCTION

Total area of land in agricultural production in all neighborhoods has generally held stable since 2013, peaking in 2016 at 342550 sq ft (7.9 acres), compared to 326932 sq ft (7.5 acres) in 2019 (Figure 1). If we only consider land outside of Southlands, where farms are not subject to the Urban Farm Guidelines, the total area of land in urban farm production has been increasing since 2014 to 257017 sq ft (5.9 acres) in 2019.



In 2019, the smallest farm was 788 sq ft and the largest farm was 160900 sq ft (3.7 acres). The median total farm size was 22967 sq ft. The mean total farm size was 31128 sq ft. Of the 11 farms that participated in the 2017-2019 Urban Farm Census,



LAND IN PRODUCTION (CONTINUED)

only 9 were active in Vancouver as of 2019. The estimated number of urban farms in Vancouver, including those that we are aware of but did not participate in the Census, is 13 (11 growing primarily vegetables, and 2 growing flowers). The number of urban farms and farm plots has decreased over time, but the number of plots per farm and average plot size has increased (Table 1). The number of small farm plots (up to 2500 sq ft in size) has decreased from 40 in 2013 to 26 in 2019. The number of larger farm plots (over 15000 sq ft) has increased from 6 in 2013 to 8 in 2019 (Table 2). The smallest farm plot in 2019 was 244 sq ft and the largest plot was 69000 sq ft. The two largest plots in 2019 were located outside of Southlands.

Table 1. Farm plots and plot sizes for 2013, 2016, and 2019.

	2013	2016	2019
# farms	15	13	9
# plots	50	44	38
Plots / farm	3.3	3.4	4.2
Median plot size (sq ft)	1000	1083	995
Average plot size (sq ft)	6255	8182	8559

Table 2. Plot numbers by size for 2013, 2016, and 2019.

		# of Plots	
Square Foot Range	2013	2016	2019
0 – 1,000	28	18	19
1,001 – 2,500	12	14	7
2,501 – 5,000	2	2	2
5,001 – 15,000	2	4	2
15,001 – 25,000	2	3	4
25,001 – 50,000	3	2	2
50,001 - 150,000	1	1	2
TOTAL	50	44	38

LAND IN PRODUCTION (CONTINUED)

In 2019, 5 urban farms operate on private residential land, 2 on institutional land, 1 on private commercial land, and 1 on both private commercial and institutional land (Table 3). In terms of square footage, 47% of urban farm production takes place on institutional land, 27% on private residential land, and 24% on private commercial land. Just over three-quarters of the farm production on private residential land occurs in Southlands.

Table 3. Number of farms by land classification in 2013, 2016, and 2019

LAND CLASSIFICATION	# OF FARMS, 2013	# OF FARMS, 2016	# OF FARMS, 2019	SQUARE FOOTAGE, 2019
Private Residential Land	5	7	5	92857 (69915 in Southlands)
Institutional / City-Owned Land	3	4	3	154000
Private Commercial Land	2	4	2	78400
TOTAL	10	14*	9	325,257

^{*}One farm is operating on both institutional (leased City land) and private commercial land.

LAND TENURE

Of the 11 farms that participated in the Census for 2017-2019, only one operated on land owned by the farmer. Six farms have written agreements to secure their land, 3 farms use oral agreements, and 1 farm used both. Five farms have agreements lasting between 1 and 5 years, and 4 farms have indefinite or ongoing agreements. Compensation to landowners is provided in the form of food (4 farms), rent (2 farms), property tax savings (2 farms), tax breaks on urban farm site expenses (1 farm), and provision of therapeutic gardening service to hospital residents (1 farm). Farmers expressed that

insecure land tenure creates uncertainty and stress over the possibility of losing their land. It limits their capacity to invest in improvements, make long-term plans, and fully realize their business goals. Short term tenure also affects urban farm production and strategies. They have less incentive to use sustainable practices that pay off in the long-term (e.g. perennial crops, permaculture techniques for soil building). Landlords also have a say over practices, for example asking farmers to focus on aesthetics. Farmers may have limited access to infrastructure like storage, washrooms, irrigation and compost bins.

As our relationship is very good with the company who allows us to use their land, we are able to continue with our current farming practices. However, if at any point they decide not to continue with us we would have to look for other willing partners with land in the neighbourhood, establish a relationship, create new farming sites (which would take time to set up) and possibly make changes to our practices and program based on our capacity. ...our Urban Farming is sustained by the property company allowing us to use this land.



FARM PRACTICES

All urban farms surveyed in the Census use organic principles and growing practices, although only one farm in Vancouver had organic certification in 2019. Farms report using practices that promote soil health and biodiversity, such as compost, organic soil amendments, mulches, cover crops, polycultures, crop rotations, no-till or minimal till, and cultural pest management.

ORGANIZATIONAL STRUCTURE

Of the 11 farms that participated in the Census for 2017-2019, 5 were structured as non-profits or charities, and 6 were structured as businesses. Of the farm businesses, there are 4 sole proprietorships or partnerships, 1 corporation, and 1 cooperative. Two of the farm businesses stopped operating in Vancouver after 2017.

2 Empower Residents to Take Action

Proposed in the city, reporting just over 15,000 people engaged in 2016 to 17,185 in 2019 (Table 4). People in the city interact with urban farms through events, volunteering, and educational opportunities. Most engagement happens through events, which include markets, festivals, farm tours, volunteer work parties, fundraisers, corporate team builders, and community

dinners. In 2019, 3670 people participated in educational programs such as mentorships, internships, courses, workshops, volunteering, and experiential learning programs in schools. Volunteering continues to be a significant way that residents engage with urban farms, with 181 volunteers contributing 4230 hours in 2019.

Table 4. Number of people engaged in urban farm programs from 2017 to 2019

Type of engagement	2017	2018	2019
Formal mentorship	2	2	2
Internships	30	35	30
Course, training program, or certificate program	71	89	126
Workshops	140	148	122
Volunteers	211	209	181
Other educational programs	2019	2295	3209
Events	13595	13575	13515
Total	16068	16353	17185
Number of farms reporting	7	6	6

Even as these engagement numbers continue to grow, they do not fully convey the impact that urban farms have through informal and unexpected interactions with neighbours. Farmers shared that they receive positive feedback from people walking by who are curious about their work and want to get their advice for their own gardens. Urban farms also provide spaces for city residents to meet each other and strengthen their social connections with others in the neighbourhood.

On many occasions, since our sites are easily visible and accessible to the visible public, people have asked us for advice on growing certain things and we are happy to share our experience with them... [Our farm] is a space where people who may never have met get to exchange stories and life experiences, learning from each other in ways they never predicted.

I had the opportunity to meet new people in my community and enjoyed the companionship... sharing knowledge and support, not just about food and gardening but other life challenges we had in common... having fun, learning and laughing together.

When asked which segments of the population participate in their skill development programs, the most common response was youth/students (Table 5). Engaging people from different walks of life is important for urban farms. They offer opportunities for diverse groups of people to work, learn, and socialize together. Inclusion as a value is explicit in the mandate of most urban farms structured as charities, and they shared that this aspiration is reflected in the structure of their social impact programs and employment practices.

Table 5. Segments of the population who participate in urban farm skills development programs.

Group	# of farms
Youth/students	7
Newcomers	5
LGBTQ2SA community	4
English language learners	3
People experiencing physical or mental health barriers	3
Racialized people	3
Seniors	3
Indigenous/First Nations/Metis/Inuit people	2
Low income or vulnerably-housed people	2
Other	2

- [Our farm] was founded with a mandate to provide agricultural training, employment and social inclusion to people facing barriers in their life. We provide a range of opportunities for social engagement, ensuring that our mission-based staff are involved in all market opportunities... representing themselves and the farm to the general public.
- We continually strive to improve upon our practices to include and provide leadership opportunities for people from all walks of life. We always seek to prioritize diversity within hiring staff, hosting events, and designing programming.
- We have helped several people who have just arrived in Canada find friends and a team to be a part of to help adjust into life in Vancouver. We work with an organization who places people with mental and physical challenges into workplaces to build skills and meaningful employment.

New questions were added to this Census based on equity and inclusion indicators suggested in a 2016 study by Toronto Urban Growers, seeking to estimate how many employees and people in leadership positions come from various marginalized communities (refer to question 18-20 in Appendix). Six out of 11 farms reported some representation from marginalized communities in leadership positions from 2017-2019. Eight out of 11 farms reported representation from marginalized communities in their employment and volunteer positions. Highest numbers were reported for people from racialized groups, those who are low-income or vulnerably housed, and those with physical or mental health challenges.



We recognize the limitations of collecting this information in a survey format. Identities are complex and cannot be easily categorized into distinct categories. We recommend re-examining these questions for any future Urban Farm Census and exploring other methods to gauge how well urban farms are doing in terms of equity and inclusion in programs and employment.

GROWING SKILLS

Urban farms provide opportunities for the city's residents to develop job skills specific to agriculture (Table 6). Most farms report teaching residents how to grow food using organic methods, and related skills like carpentry or how to create compost. A number of farms also teach other food-related skills such as cooking, food processing, food safety, and food literacy. Some urban farms teach general skills that help people become more employable, including communication, working with people from diverse backgrounds, and marketing. Through these learning opportunities, city residents are empowered to grow their own food and stay involved in the food system. Not only do urban farms create food assets through the farm sites they operate, but they also teach city residents the skills and confidence to start their own gardens.

The program helped me become more actively involved and committed to growing food for myself and to share with others. I was surprised to find that my enthusiasm was "contagious"...with a little nudge of encouragement and sharing of knowledge, several of my building neighbours began tiny gardens on their balconies.

I learned so much about plant families, the seasonality of food grown in Vancouver, culls and food waste, how to drive a big truck and work with tools and machinery, how to write professional emails, interpersonal communication with coworkers and managers, how to cook large amounts of food based on what was in season, and a lot about myself! And it didn't even feel like learning - in a good way!

Table 6. Skills developed by urban farms.

Skill type	Skill	Number of farms
	Food production	8
Outside to face d	Organic/ecological/sustainable production methods	7
Growing food	Other environmental practices	
	Carpentry and mechanical skills	5
	Food literacy and nutrition	5
Working with food	Food preparation and cooking	4
Working with 1000	Food processing	3
	Food safety	3
	Fluency in English	5
	Social skills (e.g. communication, working with people from diverse backgrounds)	
Other	Marketing and distribution	3
Other	Other employment related (e.g. punctuality, business communication, working with a supervisor)	
	Business planning	
	Working in a trauma-informed environment	1

GROWING FARMERS

Some urban farms shared that their employees and volunteers have gone on to start their own farms or enter other agriculture-related careers. It is important to recognize the important role that urban farms can play in growing the next generation of farmers by providing them with the experience of producing food and helping manage a small-scale farm operation.

Four of our alumni have gone on to be proprietors of their own small-scale sustainable agriculture projects, mostly in rural BC. Their work with us was the entrypoint into food production. Other alumni have gone into other jobs in the agricultural sector.

I largely attribute my success in being employed with the province's Ministry of Agriculture to my involvement with you and your team. I was able to draw specific examples and speak to relevant agricultural experiences in the hiring competition due to my learning on your farms.

Our former staff & volunteers have started 4 new farms in rural BC & Washington, with one more being planned in Saanich, BC.

GROWING PARTNERSHIPS

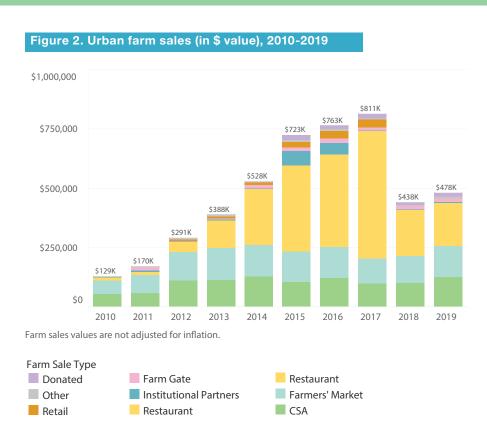
Urban farms help build social capital in the city by forming collaborations with other organizations, businesses, government departments, and institutions to achieve common goals. Eight urban farms reported forming or joining 118 joint initiatives, ranging in duration from 2 months to 10 years. Through these collaborations, urban farms are able to improve their access to resources for their operations and their participants, increase the effectiveness of their outreach and marketing efforts, better coordinate their services, and reduce duplication of projects and programs.



3 Improve Access to Healthy, Affordable, Culturally Diverse Food for All Residents

FOOD AND FLOWER SALES

he reported value of urban farm sales peaked in 2017 at \$810,850 before dropping by \$372,677 (46%) to \$438,173 between 2017 and 2018, and rising slightly to \$477,915 in 2019 (Figure 2). One factor in this significant sales drop is the loss of a number of urban farms that either left Vancouver for other cities, or stopped operating all together. We are aware of at least one farm that decided to move their business to a neighbouring jurisdiction where they had a much easier experience getting a business license and all necessary permits, compared to their challenges navigating the City of Vancouver's permitting policies.



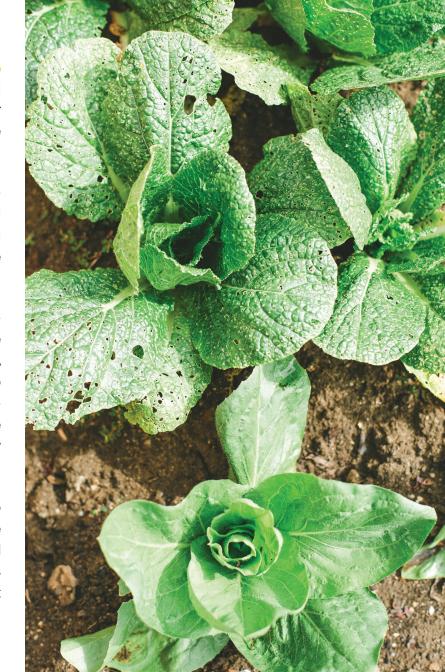
FOOD AND FLOWER SALES (Continued)

Farm sales values for 2017-2019 include both food and flower sales. Some urban farms that grow food as their primary product also sell flowers. Flower sales make up just over 4% of total farm sales in 2019.

Restaurant sales continue to make up the highest proportion of all urban farm sales. Restaurant sales peaked in 2017 at \$538,750 (66% of total sales), then dropped to \$198,122 in 2018 and \$180,539 in 2019. Only three urban farms reported any restaurant sales in 2019.

CSA and farmers market sales make up the next highest proportion of urban sales values, and neither have shown much growth since 2016. The number of CSA shares grew from 245 in 2016 (\$122,022 sales value) to 283 in 2019 (\$125,709 sales value). Six farms (including one flower farm) reported CSA sales in 2019. The length of CSAs ranged from 8 to 22 weeks, and weekly box value ranged from \$25 to \$30.55.

Farmers market sales went from \$128,200 in 2016 to \$130,022 in 2019, with 4 urban farms reporting. Three urban farms sell at the Trout Lake, Main Street, and Nat Bailey markets organized by Vancouver Farmers Markets. One farm organizes a mobile produce market as part of their non-profit organization.



Farm gate sales only make up 3% of total urban farm sales (\$16,125), with 3 urban farms reporting. Institutional sales saw a small rise in 2015 and 2016, but have dropped off to \$4,493 in 2019. 2017 was the last year that any farms reported retail sales.

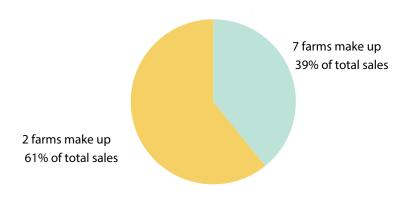
Donations from 2017-2019 continue to be consistent with previous years, making up between 2 and 3% of total farm sales revenues. Urban farms donate to community organizations such as schools, churches, shelters, community centres, neighbourhood houses, and food rescue groups. Three urban farms also directed their farm produce to kitchen programs that they run internally.

SHARE OF FARM SALES

In 2019, 2 urban farms accounted for 61% of sales (Figure 3), compared to 2016 when 3 urban farms accounted for about 79% of total sales. Sales per farm for the 2017-2019 period varied widely, with the lowest farm sales revenues under \$1000 to the highest farm sales revenues over \$350,000. By 2019, the highest farm sales revenue for a single urban farm was down to just over \$180,000. That same year, the average value of farm sales was \$51,546 and the median value was \$33,200 (n=9).

In 2019, charitable and non-profit urban farms accounted for 78% of total land area in production but only 60% of all farm sales. In terms of farm sales per square foot of production, charitable and non-profit urban farms have an average of \$1.12 in farm sales per square foot. In contrast, farm businesses have an average of \$7.51 in farm sales per square foot.

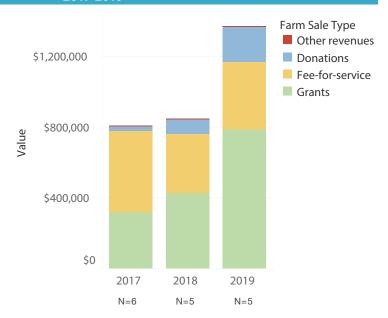
Figure 3. Two farms account for more than half of all sales, 2019



REVENUES FROM OTHER SOURCES

Six urban farms reported revenue from other sources besides food and flower sales, such as grants, fee-for-service payments, and donations (Figure 4). These revenues in 2019 totaled \$1,368,768, almost 3 times the value of food and flower sales that same year. Charitable urban farms account for a majority of revenues from other sources, but farms structured as businesses also reported a small amount of revenues from grants.

Figure 4. Revenues from other sources besides farm sales, 2017-2019



N = number of farms reporting any non-farm sales revenues.

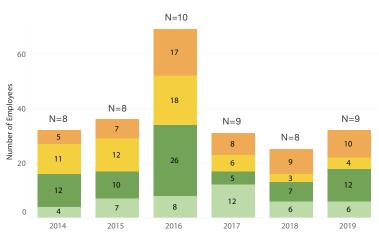


4 Make Food a Centrepiece of Vancouver's Green Economy

EMPLOYMENT

Nine out of 11 urban farms who responded to the Census reported at least one employee position between 2017 and 2019 (Figure 5). The remaining two farms were operated solely by the business owner. The previous Census showed steady growth in the number of urban farm employees from 2012 to 2016. In 2017, employee numbers decreased significantly from the 2016 peak, and dropped even further in 2018 before rising slightly in 2019. The drop can be explained by a number of factors. It could be due to the overall decrease in urban farms in Vancouver. There are also inconsistencies in how some farms answered question 33 ("What job titles did you have available in 2017-2019?") and 34 ("How many contractors/employees did you have each year, of each type?"), creating uncertainty in the employee numbers data. Finally, some farms may be relying more on unpaid labour by volunteers.

Figure 5. Change in employment numbers by type of employee, 2014-2019



Numbers in columns represent actual number of employees. N = number of farms reporting at least one employee.



WAGE RATES

Wage rates in 2019 are consistent with data from the 2016 Census. Seven urban farms reported hourly wage data for 2017 and 2018, and 8 farms reported data for 2019. Farm workers or farm assistants start at minimum wage, going up to \$17 per hour for supervisory positions and up to \$20 for positions with sales and marketing responsibilities. Co-op or summer students also start at minimum wage, up to \$15 per hour. Farm managers earn between \$21 to \$24 per hour. A few

farms employ educational programmers at between \$20 to \$25 per hour.

Only a small number of farms reported total labour costs for 2017-2019 (Table 7). In 2019, out of 8 farms that have paid positions, 5 farms reported labour costs totalling \$546,301. Even with incomplete information, we can see that labour costs for the sector as a whole exceed revenues from farm sales alone. Only 3 farms out of the 8 that have paid positions in 2019 had farm sales greater than labour costs.

Table 7. Total labour costs, 2017-2019

Year	Total labour cost	Number of farms reporting
2017	\$436,241	3 out of 7 that have paid positions
2018	\$463,952	4 out of 7 that have paid positions
2019	\$546,301	5 out of 8 that have paid positions

ANTICIPATED CHANGES

Four urban farms anticipate expanding their operations by adding new sites, increasing production, and growing programs and partnerships. Two farms hope to hire more employees to help them achieve their business and social impact goals. Two farms plan to restructure operations and possibly reduce the size or number of farm sites in response to requests from their landlords.

5 Advocate for a **Just and Sustainable** Food **System** with Partners and at All Levels of Government

Vancouver's urban farmers are passionate about moving towards a more just and sustainable food system. Some farms participate in advocacy through more formal channels, serving as members of the Vancouver Neighbourhood Food Networks and Vancouver Food Policy Council. Others point to their contributions in growing food in a good way, and teaching people to better understand the food system and how they can contribute as citizens.

In their own words, here are urban farmers' perspectives on their role as food system advocates:

- A big goal for my business is to do onsite workshops and allow people to come and see farming in the city but I am limited with space and what I'm allowed to do on the land I have. I collect leaves from my neighbourhood, I use the bark mulch from the Sunset Nursery down the block when it's available, I try to use as much around here as I can. I only sell my product in the city of Vancouver. People at the markets love that everything is hyper-local.
- I love to talk about food and educate others that growing food (and a lot of it) is possible in the city.

- We are small but definitely make a contribution by providing affordable, fresh, local food within the city. Our impact isn't regional or provincial. In our weekly CSA pickup, we create a space to share ideas on growing and cooking the foods that we've given. We try to grow with as little impact as possible.
- We work to provide Good Food For All.

 While our farms supply food into our local community, our mission is to engage the next generations of children and youth to be active and informed food citizens.
- We are bringing agriculture into the city creating an entry point for urbanites, the majority of whom are totally disconnected from food and the environment, to learn about the very ecosystems that sustain them.
 - As one of the largest and longest running urban farms in Vancouver we operate as a model for sustainable urban agriculture locally and internationally.

- When we started, most of the city's microgreens were flown from California. We now supply a decent portion of the city's microgreens grown locally and delivered by bicycle while enabling people to farm without having to live in a rural setting.
- We grow a lot of food, and educate thousands about food production and sustainable food systems.
- We provide healthy, local and organic food with minimal waste, as well as contributing high quality compost to adjacent community gardens.
- We provide education, connection and nourishment to our community (including members, volunteers and staff) through our various food programs. We link our food programs and create a farm to table experience for everyone to get excited about, and educate people along the way. We are dedicated to finding other models of providing dignified access to food to our members.

CONCLUSION

he Census data from 2017-2019 show us that the urban farming sector is no longer growing in the same way it was from 2010 to 2016. Farm sales and employment have decreased since 2016. Six urban farm businesses that were active in 2016 either closed down or moved their operation to another jurisdiction as of 2019. Urban farmers grapple with the same issues of unaffordability and high housing prices faced by Vancouver residents. Urban farm business owners, operators, and workers in Vancouver face additional difficulties. Cost of living is high, and land is limited and expensive. Insecure land tenure creates uncertainty and limits farmers' capacity to improve their land and make long-term plans. There are now slightly more charitable and non-profit urban farms than farm businesses, which may be due to the additional financial support available in the form of grant funding.

At the same time, urban farms continue to generate significant community benefits through education, green

space, and public engagement. Cities cannot grow all the food that they need through urban farming. The unique value proposition of urban farming is not in the volume of food produced, but in the ability to help urbanites understand and connect with the food system. Urban farms help people connect with nature, and encourage us to see ourselves as a part of the ecosystems that support us. Urban farms offer educational opportunities specifically for children and youth, helping to ensure that young people growing up in the city get a chance to see where their food comes from and what it takes to grow it well.

POLICY ACTION

Urban farms face significant challenges to their operations in terms of narrow margins, insecure land tenure, and the high cost of living. In addition to these challenges, they are constricted by city regulations that create uncertainty, impose high costs, and set unnecessary

limitations on urban farm activities. There continues to be a lack of supportive policy and programs to help the urban farm sector thrive.

In the fall of 2019, City staff started reviewing Vancouver's Urban Farm Guidelines to evaluate their effectiveness and recommend changes to Council. VUFS has commissioned a report to inform the City's review process and put forward recommendations to improve the Guidelines. The full report, "Policy and Possibilities: Recommendations for the City of Vancouver's Urban Farm Guidelines", can be found on **urbanfarmers.ca**.

VUFS has identified the following issues with the Guidelines:

• The requirements for permitting and licensing create uncertainty and impose high costs that limit the economic viability of urban farms. The Development Permit process is lengthy, uncertain, and expensive to undertake. The costs are disproportionate to what urban farms can bear, given that food production in any context is a low margin industry. Building bylaws for brick-and-mortar buildings are applied to farm structures that are often used for storage or season extension and have low occupancy. The cost of making upgrades to get a Building Permit is dispro-

portionate to the economic returns of urban farming. The process for applying for a Business License is perceived by farmers as tedious, time-intensive, and unclear, especially for farms that operate on multiple sites.

- The Guidelines set unnecessary limitations on urban farm activities. Urban farms are only allowed to cultivate fruits or vegetables. Urban farms in or near residential areas are not allowed to have activities outside 8am to 9pm. On-site sales are not allowed for farms in Residential Districts unless the primary use of the parcel is Institutional. Any on-site sales are limited to produce grown on the site.
- There is a lack of supportive policy or programs to help the urban farm sector thrive and grow. The Guidelines were designed to prevent urban farms from attaining Farm Class Status under the BC Assessment Act. Farm Class Status can incentivize property owners to lease land to urban farmers. City-owned properties could be made available on long-term leases for urban farm use. There are opportunities for the City to provide resources like municipal compost delivery, soil testing, and grants.

TO ADDRESS THESE ISSUES, WE CALL FOR THE FOLLOWING POLICY CHANGES:

- 1 Incentivize` landowners to make land available to urban farmers using taxation or other policy tools.
- 2 Make more City-owned land available for urban farming.
- **3** Allow urban farming in all zones as a Permitted Use, and eliminate the Development Permit requirement for Class B and large Class A urban farms.
- 4 Create building bylaws appropriate for urban farm structures.
- **5** Clarify and simplify the business license application process.
- 6 Allow other urban farming products besides fruits and vegetables.
- **7** Allow non-disruptive urban farming activities outside 8 am 9 pm.
- **8** Expand on-site sales and allow farm stands.

The first two recommendations address land access, which is one of the most common challenges faced by new entrants to farming in the region due to the extremely high cost of land, and is not exclusive to urban farmers. Because of the financial and tax implications, implementing these two recommendations will be a lengthy and political process. The policy recommendations and precedents in this report are intended to be a starting point to inform further discussion towards policies that increase urban farmers' access to land.

Recommendations 3, 4, and 5 pertaining to development permits, building permits, and business licenses were identified by current urban farmers as being the greatest priority to address in the City's Guidelines. Improving the permitting and licensing processes requires the City to recognize that urban farming is a low-margin activity. Adopting these policy changes will significantly reduce barriers and costs for urban farmers, and make it easier for urban farms to grow. The last three recommendations involve adjusting the Guidelines to recognize and enable common urban farming practices and provide farmers with greater flexibility in marketing and operations.



Outside of these formal policy changes, there are other ways that the City can provide support and resources to urban farms. Suggestions from urban farmers include:

- Free or low-cost deliveries of compost and leaf mulch
- Increased availability of grant funding
- Share infrastructure such as the City's horticultural nursery space
- Cover soil testing costs

A detailed discussion of policy challenges and specific policy recommendations can be found at **urbanfarmers.ca**. The City's upcoming review of the urban farming Guidelines creates an opportunity to enact bold policies to help urban farms succeed in a challenging economic environment and continue to create social, economic, and environmental benefits for Vancouver residents.



APPENDIX

The Census Questionnaire 2017-2019

EDIBLE VANCOUVER: AN URBAN FARMING CENSUS

This questionnaire aims to better understand the impacts of urban farming in Vancouver. The impacts of providing local food, connecting with residents and providing green jobs are not well understood — which is why we are conducting this census. This census, used in conjunction with other reports and studies, aims to gather that data and make it available for current urban farmers to learn from their peers, for city officials to have a better idea about the kinds of activities currently in practice by urban farmers, and for customers to learn more about how the local food system operates.

This survey focuses on the past three years – those years not covered by Marc Schutzbank's past work with the urban farming census. Please answer these questions in relation to your entire urban farming organization using any records or data you have available.

Introduction

1. What is the name of your farm?

Introduction (Continued)	13. How is your organization structured?Sole proprietorshipNon-profit societyCharity						
6. How long is your lease?							
7. Does the landowner receive compensation for your use of the land?	☐ Corporation ☐ Co-op ☐ Other:						
YES NO	Community Impacts						
8. If yes, how much for one year? Please select the method and indicate annual value. Rent (annual value) Food (estimated annual value)	were involved in each opportunity						
Water or other utilities		2017	2018	2019			
Property Tax Savings(type or estimated annual)	Course, training program, or certificate program						
Other:	Workshops						
9. What effect does your land tenure status have on	Formal mentorship program						
your organization / business?	Internship						
10. What effect does your land tenure status have on your farming practices?	Volunteering						
	Other:						
11. Does the landowner limit any farming practices?							
12. Please briefly describe your growing practices (e.g. using organic principles, soil amendments, fertilizers, etc.)	15. How many volunteer hours do logged on your urban farm: in 2017? in 2018?		stimate 2019?_	were			
	in 2017? in 2018?	4	∠∪ I છ f _				

 16. What skills do you help participants develop? Food production Organic/ecological/sustainable production methods Other environmental practices Marketing and distribution Food preparation and cooking Food processing Food safety 	 English language learners People experiencing physical or mental health barriers Racialized people Indigenous/First Nations, Metis, or Inuit people LGBTQ2S community Seniors Other: 				
Food literacy and nutrition Business planning Carpentry and mechanical skills (e.g. using tools, maintaining equipment)	18. How many people in your organization fill a formal leadership role? (e.g. Business Owner; Chair or Members of Board/Committee; Team Leader/Supervisor/ Manager; Executive Director or CEO; Other):				
 Employment-related (such as punctuality, business communication, working with a supervisor) Fluency in English (conversation, reading comprehension) Social skills (communication, working construction) 	19. Of the people with leadership roles, how many of them identify in the following ways? (For individuals who fit with multiple categories, only count them once.) Black:				
tively with others, working with people from	Indigenous/First Nations, Metis, or Inuit:				
diverse backgrounds, respecting others)	From another racialized group:				
Other:	Newcomers (in Canada < 5 years):				
17. Which of the following segments of the population	Having physical or mental health challenges:				
participate in your skills development programs?:	Member of LGBTQ2S community:				
☐ Youth/Students	Low-income and/or vulnerably housed:				
Newcomers	Speak English as a second language:				
Low-income and/or vulnerably housed people	Seniors:				

20. How many people employed in your organization identify as: Black: Indigenous/First Nations, Metis, or Inuit: From another racialized group: Newcomers (in Canada < 5 years): Having physical or mental health challenges:	23. How many collaborations has your organization formed or joined related to your urban agriculture projects? Collaborations refer to joint initiatives between organizations, businesses, government departments or institutions to achieve commonly held objectives. Collaborations can be formal (with a written agreement) or informal (working together on an event or program)
Member of LGBTQ2S community:	24. Have your collaborations improved any of the
Low-income and/or vulnerably housed:	following activities?
Speak English as a second language: Seniors: 21. Does your project offer opportunities for diverse people to work or socialize together? <i>Diversity can refer to race, ethnic origin, language, socioeconomic status, health status, gender, age, ability</i> YES NO NOT SURE 22. If yes, how?	 Improved outreach/marketing Improved service coordination Improved access to resources for participants (info, services, supports) Improved access to resources for project (funding, inputs, volunteers) Reduced duplication within project, between organizations or externally (across neighbourhood, city) Other:
 Work sessions Social events Educational events Other:	25. How long have each of the collaborations existed?

26. Please describe any events hosted by your urban farm (e.g. tours, classes, weddings, markets, events, volunteer days):

Type of Event	# of events annually	Average # of attendees	Private (Y/N)	Estimated fee

27. Can you describe one or two stories of your farm's social/community impact? (For example, how has your farm created a sense of belonging/inclusion, reduced social isolation, or improved mental health and wellbeing?

Improving Access to Local Food

28. How much food did you sell through the following market channels? *If you have lbs., please include that information*

	20	017	2018		2019	
	\$	lbs.	\$	lbs.	\$	lbs.
Revenues from food sales					-	
CSA						
Farmer's Markets						
At your farm site (e.g. farm stand)						
Restaurants						
Institutional Partners (e.g. cafeterias)						
Estimated value of food grown, but not sold						
Donated						
Other food sales						
Revenues other than food sales						
Grants						
Donations						
Fee-for-service						
Other						

Improving Access to Local Food (Continued)

29. If you had a CSA, how many shares did you have in:

	2017	2018	2019
# of shares			
# of weeks			
Box value/week			

30.	If you	sold a	at farm	ner's	markets,	which	ones	did	you	attend	d:
	2017:										

2018:

2019:

31. If your organization donated food, where did you donate it?

2017:

2018:

2019:

32. What was your total labour cost:

2017:

2018:

2019:

33. What jobs (job titles) did you have available in 2017 - 2019? And what were their wages (hourly) (e.g. Farm Manager, farmer, 13.85/hr).

2017		2018		2019	
Job Title	Wage	Job Title Wage		Job Title	Wage

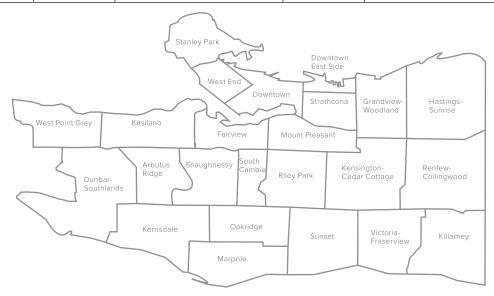
34. How many contractors / employees did you have in:

	# of Full Time year round	# of Full Time seasonal	# of Part TIme year round	# of Part TIme seasonal
2017				
2018				
2019				

Urban Farming Food Assets

In the table below, please list the cross streets or neighbourhood (also below), as well as the size (in sq. ft.) of your farm sites in 2017-2019. You can use this website to calculate the area of your gardens using Google Maps: http://www.daftlogic.com/projects-google-maps-area-calculator-tool.htm

2017		2018		2019	
Cross streets / Neighbourhood	Size (sq. ft.)	Cross streets / Neighbourhood	Size (sq. ft.)	Cross streets / Neighbourhood	Size (sq. ft.)



Advocate for	r a Just	and Sus	tainable	Food
System with	Partne	rs and a	t All Leve	els of
Government				

Government
35. Are you aware that as part of a pilot project, the city of Vancouver now requires urban farms, growing food for sale , whether in a social enterprise, non-profit or profit model, to apply for an annual business licence? Check one:
()YES ()NO
36. If YES, how did you hear about this requirement?
37. Have you applied for your annual business licence this year (2019)?
YES NO
38. Why or why not?

39. How does having a business license (or not having one) impact you?

If you have applied for a business license, please answer the following 3 questions

40. Which of the following best applies to you?
I have been approved for a business license
I have submitted my application, but have not been approved

 I have submitted my application and is beir processed 	ng
41. Which class of business licence did you apply for	?
Class A Urban Farm Class B Urban Farm Other:	

42. Were there any additional costs associated with applying for your annual business license, in addition to the application fee? (i.e. Consultant fees, development permit etc, cost of your time/labour)

YES NO

If YES, please explain (e.g. type and amount of costs):

- 43. Please provide your feedback regarding the City's development permit and business license process:
- 44. Please share other feedback/ideas on other ways that the City can support urban farming. (For example: free compost deliveries; leasing city-owned lots to farmers; sharing horticultural nursery space, specific changes to the Guidelines that you'd like to see, etc).
- 45. What changes, if any, do you anticipate to your farming operation in the next two years. (Ex. expansion to new location, changing growing techniques, new business model, etc.)

46. What is driving that change?

47. How do you see your organization contributing to a just and sustainable food system in the city? The region? And/Or the province? *The City of Vancouver defines a just and sustainable food system as one in*

which food production, processing, distribution, consumption and waste management are integrated to enhance the environmental, economic, social and nutritional well-being of our city and its residents.

Please use this space for any additional comments, questions, or thoughts.						

ABOUT VUFS

VU FS

Aiming to grow urban farming as a viable, thriving, and vibrant sector in Vancouver and beyond, Vancouver Urban Farming Society is a convening organization that strengthens the growth of the urban farming sector through education, advocacy, networking, and business support. Find us at urbanfarmers.ca.





