

The Influence of Covid-19 on Sustainable Urban Food Systems -- Recommendations for Kamloops, BC.

Abstract

This poster outlines sustainable food production in Kamloops, possible improvements, the benefits of urban agriculture, and the impact of COVID-19 on urban agriculture, both globally and in Kamloops. This analysis involves a literature review and general observations. The research shows that while urban agriculture is realistic and highly beneficial to food security, cities such as Kamloops are still in the early stages. While community initiatives are increasing, there is still room for growth. Research and personal observations also show that although the presence of COVID-19 has had plenty of negative consequences, it may be a catalyst in urging cities towards more sustainable food systems. Recommendations include an increase in local food cultivation, processing, distribution, and sourcing. This research concludes that whereas Kamloops is developing as a more sustainable agricultural community, its full potential has not yet been reached.

Keywords: Urban Environmental Sustainability, Urban Agriculture, COVID-19, Sustainable Food Systems, City of Kamloops.

Introduction

The purpose of this poster is to describe agricultural sustainability in terms of applicability in an urban environment such as Kamloops. In order to accomplish this, I will describe urban agriculture, as well as outline urban agriculture initiatives in Kamloops and possible recommendations for the future. I will also discuss Covid-19 as an influencing force on agricultural sustainability in urban communities.

Methods

Methods of research utilized in this poster:

- Literature review
- Personal observation (experience with the Farm to School initiative, and local farmers markets)

Methods used within my sources:

- Analysis of various urban farms, data collection and analysis, and observations.

What is Urban Agricultural Sustainability?

Urban agriculture, also referred to as urban farming, is the practice of growing and distributing food in urban areas. The production of foods can be accomplished through community gardens, rooftop gardens, vertical gardens, and terrace gardens, among others. (Pulighe & Lupia, 2020)

Urban agriculture is becoming increasingly important as it can increase food security (Lal, 2020), decrease the carbon footprint necessary to transport food from rural farms, and combat air pollution in cities

In terms of sustainability, urban agriculture can be a massive tool in accomplishing some of the United Nations Sustainable Development Goals (see below). Additionally, it helps provide communities with fresh and accessible food, and creates more self-sufficient cities. Creating a strong local food system is key in creating a sustainable city (See Fig. 1)

Urban Agriculture is a useful tool to further our progress towards the following UN SDG's:

-SDG #11: Sustainable Cities & Communities- Urban agriculture has the potential to allow cities to be self-reliant in terms of food production and can decrease air pollution within urban areas.

-SDG #2: Zero Hunger- Through urban agriculture, communities can decrease hunger, increase nutrition, and encourage sustainable food systems.

-SDG #8: Decent Work & Economic Growth- Local food production, processing, and distribution can increase jobs, which is especially important right now due to job loss from the COVID-19 pandemic.

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Figure 1: Graphic depicting the factors of a sustainable food system in Kamloops, BC. Source: T. Gadsby (2014) Drawing Out Ideas, <https://www.kamloops.ca/our-community/building-strong-communities/food-and-urban-agriculture>



Urban Agriculture in Kamloops, BC



Some ongoing initiatives in Kamloops related to sustainable food systems and urban agriculture: -Farm to School program, which provides schools across B.C with locally grown produce for free. They also focus on education regarding sustainable food systems, hands-on learning activities, and strengthening the community. -Farm 2 Chef is a Kamloops non-profit which encourages chefs to source their ingredients locally and when in season to encourage a more sustainable local food system.

- EatKamloops.org, which is an online resource that serves as a directory for local agriculture. Farms within Kamloops (specifically organic, natural, or otherwise sustainable farms): -Thistle Farm, Edgewater Nursery, Gardengate, Riverbend Orchard, Sun Rivers Organics, Berry Sweet Gardens, Forest to Fork, Fox Creek Farm, Labyrinth Farm, Made with Love Urban Permaculture Farm and Grocery Manufacturing Company, Tranquille Farm Fresh, among others.



Impact of COVID-19



- The COVID-19 pandemic has had a major influence on food systems worldwide.
- Social distancing measures have decreased the number of farm workers and food production workers that can work at a time, therefore decreasing food production speed. (Pulighe & Lupia, 2020)
- Stay-at-home orders also drastically altered how people eat on a daily basis, with the closure of many restaurants and the panic buying of non-perishables.
- Some countries have set restrictions on food exports in order to protect their food security, which heavily influences countries that are dependent on food grown out of the country.

The combination of these factors reveals our reliance on food systems outside of our urban environment (Lal, 2020), and has led to many people taking up gardening and/or shifting their diets to include more locally grown and locally processed products.

Recommendations for Kamloops, BC

- As Kamloops is a community with fairly cold winters, it would be helpful to implement community gardens within greenhouses and/or the average household. By providing a means of urban agriculture through the winter, the growing season would be extended, and local food production would increase over the year.
- While some school based agricultural initiatives exist, Kamloops would benefit from creating gardens in every secondary school to educate teens on food production and provide them with easily accessible nutritious foods.
- While initiatives such as Farm 2 Chef are beneficial, their reach would be more substantial if backed by subsidies provided by the city or province.
- Keeping other aspects of the urban food system within Kamloops, such as processing and storage, would contribute to a more sustainable urban food system.

Larger scale urban farms, such as *The Garden*, in Manhattan, *The Farm*, in London, and *The Park*, near San Francisco, demonstrate the different forms that urban agriculture can embody within a city (Martin, Clift, & Christie, 2016).

- *The Garden* was built on a past brownfield site and is 0.15 acres in size. This site is open to the public and mostly provides people with small amounts of veggies. It is generally liked by the community and thought of as a calm green space among the skyscrapers. Additionally, *The Garden* hosts an annual Tulip Festival which attracts tourism from around the world.
- *The Farm* is 7.2 acres in size and is the largest community farm in London. Community engagement, such as education for students regarding agriculture, is a high priority for this site. Produce grown here is sold, but only in order to pay the bills for the land and all unsold produce is donated to a local charity which makes it into soup.
- *The Park* is 6.5 acres and is made up of several small-scale organic farms in the outskirts of San Francisco. This site is home to a variety of initiatives including the education of school children and supplying produce to local restaurants. While this site is the most rural of the three, it is still closely linked to the urban food systems within the San Francisco area.

While these three urban agricultural examples are different in both location and form, all three positively impact the food systems within the cities. This goes to show that urban agriculture can be implemented in any city in a variety of ways. Cities such as Kamloops could take inspiration from any/all of these forms in order to increase local food production.

Summary & Conclusion

Although Kamloops is improving in terms of the urban agriculture sector, there is still substantial work that needs to be done in order to develop a fully sustainable urban food system. Through the side effects of the COVID-19 pandemic, urban communities such as Kamloops may prioritize developing more sustainable urban agricultural systems for the benefit of the community, environment, and local economy.

References

Crivits, M., Prové, C., Block, T., & Deseine, J. (2016). Four Perspectives of Sustainability Applied to the Local Food Strategy of Ghent (Belgium): Need for a Cycle of Democratic Participation? *Sustainability*, 8(1), 55. <https://doi.org/10.3390/su8010055> Lal, R. (2020). Home gardening and urban agriculture for advancing food and nutritional security in response to the COVID-19 pandemic. *Food Sec.* 12, 871–876. <https://doi.org/10.1007/s12571-020-01058-3>

Martin, G., Clift, R., & Christie, I. (2016). Urban Cultivation and Its Contributions to Sustainability: Nibbles of Food but Oodles of Social Capital. *Sustainability*, 8(5), 409. <https://doi.org/10.3390/su8050409>

Olsson, E.G.A. (2018). Urban food systems as vehicles for sustainability transitions. *Bulletin of Geography. Socio-economic Series*, 40(40), 133–144. <http://doi.org/10.2478/bog-2018-0019>

Bringing healthy, local food to schools. (2020, September 25). Retrieved from <https://farmtoschoolbc.ca/>

Food and Urban Agriculture. (2020, January 02). Retrieved from <https://www.kamloops.ca/our-community/building-strong-communities/food-and-urban-agriculture>

Martin, G., Clift, R., & Christie, I. (2016). Urban Cultivation and Its Contributions to Sustainability: Nibbles of Food but Oodles of Social Capital. *Sustainability*, 8(5), 409. doi:10.3390/su8050409

Pulighe, G., & Lupia, F. (2020, June 19). Food First: COVID-19 Outbreak and Cities Lockdown a Booster for a Wider Vision on Urban Agriculture. Retrieved November 12, 2020, from <https://www.mdpi.com/2071-1050/12/12/5012>

Q&A: COVID-19 pandemic – impact on food and agriculture. (n.d.). Retrieved from <http://www.fao.org/2019-ncov/q-and-a/impact-on-food-and-agriculture/en/>

Sustainable Kamloops Plan 2016 Progress Update. (2016). Retrieved November 12, 2020, from https://www.kamloops.ca/sites/default/files/docs/our-community/sus_sustainablekamloopsplan_update_2016.pdf

THE 17 GOALS | Sustainable Development. (n.d.). Retrieved November 12, 2020, from <https://sdgs.un.org/goals>

We are on a mission to celebrate local food. (n.d.). Retrieved from <https://www.farm2chefs.com/>