

Urban Agriculture — Best Practices and Possibilities



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ABSTRACT

This report provides an overview of urban agriculture and local food system resources and practices across the United States and parts of Canada, with a primary emphasis on providing resources that can encourage and support urban agriculture in Missouri's metropolitan areas. We analyzed information from a survey of Urban Sustainability Directors Network members who belong to either the national network or the Heartland Sustainability Network. We provide examples of emerging practices that are working well for cities and collate a number of resources that exist for cities and their urban agriculture practitioners and advocates. This information is accessible in this report, but is highlighted in the website created for this project at <http://extension.missouri.edu/foodsystems/urbanagriculture.aspx>, which includes a public, searchable database that provides documents and websites of zoning ordinances, promotional and educational information, and resources on urban agriculture and food systems.

INTRODUCTION

At the request of the cities of Kansas City, Columbia and St. Louis, we seek to provide research-based guidance that can help these cities to realize the potential of regional food systems as an entrepreneurial strategy for urban economic development, paying special attention to urban agriculture. In particular, these cities were interested in seeing how regional food systems can be developed to bring together the interests of municipalities, advocates and practitioners.

Our *specific objective* was to assess and compile best practices and policies to promote urban agriculture, working with members of the Urban Sustainability Directors Network (USDN) and urban agriculture advocates and practitioners in the cities of Kansas City, Columbia and St. Louis. This report joins several other major guides and assessments that have been published recently in the constantly changing field of urban agriculture. The results of this project are presented in several different formats. First, this written report helps to define and describe urban agriculture and local food system efforts within Missouri's metropolitan areas and other cities across the nation. A report is a static document that is good only at the time of writing. Thus, a second output of this project is a dedicated web page created within University of Missouri Extension's website to provide information and resources on urban agriculture as part of larger food system efforts. The third output, a searchable database housed on the website, contains links to existing resources that cities can use to support and encourage urban agriculture and local food system strategies. This database also affords access to existing ordinances concerning urban agriculture as well as educational and promotional efforts made by cities to help advocates and practitioners of urban agriculture. This database is meant to be a dynamic tool that can help cities share information and resources with each other and the general public in the rapidly emerging field of urban agriculture.

PROJECT METHODOLOGY

Two primary methods were used to collect data for both the written report and the web page. First, we conducted an online survey of USDN members and members of the Heartland Sustainability Network; 29 members responded. This survey included questions about what kinds of urban agriculture existed in their cities; what challenges urban agriculture faced in their cities; and what kinds of policies, ordinances and practices they used to promote urban agriculture. The survey included space for respondents to upload any relevant public documents from their cities. Second, we conducted face-to-face interviews with eight advocates and practitioners of urban agriculture in Kansas City, Columbia and St. Louis. Interviewees were asked about urban agriculture practices in their cities, challenges faced by urban agriculture in those cities, and opportunities to work with city government to promote urban agriculture. All data gathering was conducted in accordance with the rules of the Internal Review Board of the University of Missouri.

While this report draws primarily from the survey and interview responses, it also uses information collected and shared through the listserv of the Community Food Security Coalition on specific urban agriculture practices, ordinances and programs.¹ In the course of our work, several queries about municipal policies, ordinances, programs and support for urban

¹ The Community Food Security Coalition has existed since 1996. It is one of the most important groups of practitioners, advocates and scholars in the United States and Canada connecting nutrition, food security and local food systems. Its mission is "to catalyze food systems that are healthy, sustainable, just, and democratic by building community voice and capacity for change." See <http://foodsecurity.org/> for more information. The listserv is (COMFOOD-L@elist.tufts.edu).

agriculture surfaced on this listserv. We used answers to these queries not only to supplement the scan done through the survey but, more important, to cover a wider range of tools and resources for the web page. Finally, material for this report also came from public testimony received by the State of Missouri’s Joint Committee on Urban Agriculture. Hearings were conducted in four cities in Missouri from July to October 2011. This testimony was reviewed for relevant information.

DEFINITIONS OF URBAN AGRICULTURE AND LOCAL FOOD SYSTEMS

The popularity of urban agriculture has increased considerably in the last few years as concerns about the environment have combined with increased interest in health and community-building issues, giving rise to support for food systems in metro areas as an integral part of a sustainable development path for cities. More cities, advocates and practitioners are moving to take advantage of the rise in interest in sustainable local or regional food systems, but they face many challenges, which accounts for the fact that a number of resources provided in this document have appeared only within the last six to twelve months.

Many of the respondents to our survey mixed conversations about local food systems with questions and policies dealing specifically with urban agriculture, which is actually one subsector of a city’s food system. A **food system** is all the growing, processing, distributing, retailing, consumption and waste disposal activities associated with food (**Figure 1**). Definitions of local food systems often incorporate two other components — the location of these activities in a specific geographical area, and specified goals to “enhance the environmental, economic, social and nutritional health of a particular place.”² However, these definitions vary from place to place, leading to little consensus on what “local” means. Finding a consensus definition frustrated authors of a report on local food systems prepared by the United States Department of Agriculture in 2010. For their purposes, they defaulted to the Congressional definition in the 2008 Farm Bill, which was “locally or regionally produced agricultural food product [that] is less than 400 miles from its origin, or within the State in which it is produced.”³ Clearly, local food systems and urban agriculture vary substantially from place to place, making them sensitive to local context and the specific people involved;

thus, ***cities must define and clarify their meanings for urban agriculture and food system issues when changing codes or when providing education and resources.***

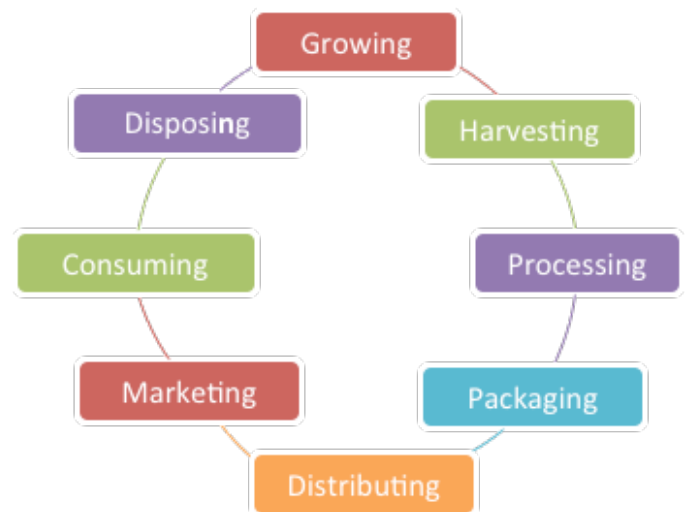


Figure 1. A food system and its components.

A city’s food system is fed by local, regional and global systems of production and consumption. In local food systems, the emphasis is on building community relationships in the food system that can meet overall goals of enhancing the health, economy, society and environment of a particular place. For instance, while a notion of geographical place has been at the heart of local food system discussions, the USDA report concluded that consumers often associate other characteristics with local food systems such as marketing arrangements (e.g., direct farmer-to-consumer marketing like farmers’ markets), product characteristics (e.g.,

² Garrett, S., and Gail Feenstra. 1999. *Growing a Community Food System*. Pullman, Wash.: Western Rural Development Center.

³ Martinez, Steve, et al. *Local Food Systems: Concepts, Impacts, and Issues*. ERR 97. U.S. Department of Agriculture, Economic Research Service. May 2010.

produced with reduced use of synthetic fertilizers or other chemicals, humanely raised), and who produced the food (e.g., ethics of the farmer, fair labor practices).⁴

Urban agriculture is one component of local food systems. As a subsector of such a complex system, urban agriculture can be defined in many ways and will need to be adapted to the local context. For the purposes of our project, the definition provided by Bailkey and Nasr is used: **“The growing, processing, and distribution of food and other products through intensive plant cultivation and animal husbandry in and around cities.”**⁵ In our face-to-face interviews, respondents generally follow the path of Goldstein et al.⁶ by broadening the definition: urban agriculture “refer[s] to growing and raising food crops and animals in an urban setting for the purpose of feeding local populations. Cities choose to narrow and focus this definition in various ways, often categorizing urban agriculture as one or more of the following: community gardens, commercial gardens, community supported agriculture, farmers’ markets, personal gardens, and urban farms.” One of our interview respondents (M-1) said that “urban agriculture is community-based and community-minded.” ***We believe it is important for cities to understand urban agriculture as a food-producing and community activity, one that is sometimes a for-profit business, especially as urban agriculture is incorporated into sustainable development goals.***

Important Issues for Cities:

Policies, education and technical assistance are going to differ based on the type and scale of urban agriculture. Profit-making farms need different support than community gardens or other more communal or community-based farming. The majority of urban farms are small, most being less than one acre, which is approximately half a city block. However, larger scale urban farms – from four acres to 100 acres – are possible. With intensive cultivation and good marketing practices, urban farming businesses can gross more than \$50,000 per acre, which may be an important economic development tool.

Figure 2 shows that survey respondents generally believe that urban agriculture is used to supplement household income or to provide food for the household. This may not reflect reality, but as we show in this report, there is little ongoing research to provide answers to this question. Thus, cities may want to separate out forms of urban agriculture that are primarily profit-based – essentially farming in the city⁷ – from those that exist primarily to benefit the common good (e.g., community gardening) when thinking about policies, education or technical assistance that can or should be provided (**Figure 3**).

Cities should also understand matters of scale in urban agriculture. Although many urban farmers are small producers who use profits mostly to subsidize household income rather than make a living, it is important that cities understand that urban agriculture projects can also be large-scale. For example, the FarmWorks project in St. Louis envisions redeveloping a four-acre site in the downtown area to provide jobs, fresh foods and processing in one place.⁸ In Kansas City, Kansas, a two-acre plot of organic land grosses over \$100,000 in sales for Cultivate Kansas City, a nonprofit that uses the land as a farm incubator.⁹ In Detroit, one private investor, Hantz Farms, and Michigan State University have both announced plans to establish large-

⁴ Ibid.

⁵ Bailkey, M., and J. Nasr. 2000, From Brownfields to Greenfields: Producing Food in North American Cities, Community Food Security News, Fall 1999/Winter 2000:6

⁶ Goldstein, M., et al. (2011). Urban agriculture: a sixteen city survey of urban agriculture practices across the country. Page 4. Retrieved from <http://www.georgiaorganics.org/Advocacy/urbanagreport.pdf>.

⁷ The U.S. Department of Agriculture defines a farm as “any operation that sells at least one thousand dollars of agricultural commodities or that would have sold that amount of produce under normal circumstances.” For instance, urban farmers can qualify for assistance under USDA farm programs, including those for conservation and income support.

⁸ Written testimony provided by *Farm Works* at the Missouri Joint Committee on Urban Agriculture hearing in Maplewood, Mo., on October 4, 2011.

⁹ Testimony from Katherine Kelly provided to the Missouri Joint Committee on Urban Agriculture hearing in Kansas City, Mo., July 11, 2011.

acreage urban farms of 100 acres or more.¹⁰ Thus, it is important for cities to understand urban agriculture as private enterprise that can exist from a micro to macro scale.

Interest in urban agriculture as a viable economic enterprise is reflected in some responses to our survey of USDN members. For instance, a couple of respondents specifically asked for resources that would help them answer the following questions:

- How can we address the financial viability of urban or peri-urban farming or incentivize urban/peri-urban agriculture to increase food security but also consider issues of affordability?
- Can urban agriculture create full-time employment through food production?

Other cities responded that they were working on activities to make urban agriculture more financially viable, including establishing a centralized incubator farm¹¹ and working with local lenders to help capitalize urban food production efforts.

STRUCTURE OF THIS REPORT

We have chosen to focus on a few key areas in this written report, including key questions that USDN members and urban agriculture practitioners/advocates have about urban agriculture; city ordinances and zoning regulations; access to water and capital; brownfields and contaminated soil; food policy councils; food access; local food system infrastructure; and Missouri-specific information. These particular discussions follow this introduction. Each section presents a discussion of the issues, an analysis of USDN members' interest in those issues, and a highlight of either a best practice or a best resource. In the concluding section, we identify some gaps in the work and discuss overall ways that cities can successfully deal with local food system and urban agriculture work. As noted above, this written report is only one of the outputs of this project.

Another key output is the development of a web page at the University of Missouri that includes a searchable database of educational resources, reports, best practices and specific ordinances that apply to urban agriculture or local food systems. We believe this database will be the most significant output of this work for its ability to function as a dynamic tool for USDN members and the general public. **See the screen shot on p.10** of the opening page of the website, which provides access to the searchable database and an online copy of this report.

¹⁰ Gallagher, John. 2012. "Michigan State proposes 100-acre, \$100-million urban-farming research center in Detroit." *Detroit Free Press*. April 13. Also consulted Hantz Farms website at <http://hantzfarmsdetroit.com/>.

¹¹ For good examples of urban farm incubators, see Cultivate Kansas City (<http://www.cultivatekc.org/>) and Growing Power in Milwaukee (<http://growingpower.org/>).