



# The Promise of Urban Agriculture: National Study of Commercial Farming in Urban Areas (Summary)

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Under a cooperative agreement between USDA Agricultural Marketing Service (AMS) and the Cornell University's Small Farm Program, Dr. Anu Rangarajan and Molly Riordan researched factors affecting the commercial viability of urban agriculture (UA). They explored the challenges and circumstances required for urban agriculture to provide opportunities for economic gain and improve access to fresh foods in urban centers. The research focused on 14 commercial urban farms or farms where food sales are their primary activity and evaluated factors that contributed to or inhibited their successes.

The full report is available at <https://smallfarms.cornell.edu/projects/urban-ag/promise-urban-agriculture/>.

## **Background and Overview**

Urban agriculture (UA), growing food in urban and peri-urban areas where agriculture is not a primary land use, is a growing industry with a long history. There are examples of community gardens and the growing of food in American cities that date back to the 1800s.

A new UA movement is gaining momentum as a route to economic development in urban areas. There are claims that urban agriculture offers many promises such as increased fresh food access, workforce development and training, enhanced neighborhood safety, environmental improvements, and local economic development to name a few.

The primary focus of this report is on evaluating market access potential and the commercial viability of UA. This report reflects a year's worth of research, in-person interviews with over 160 practitioners, researchers, advocates, and subject matter experts, and visits to urban farms and communities throughout the nation. It evaluates factors that have contributed to or inhibited the success of commercial urban farms; identifies policy considerations, investment needs and community actions that could foster development of more commercial UA; and determines strategic research, training, University Extension and education needs to advance commercial UA.

## Methodology

This study focuses on commercial urban farms or farms where food sales are their primary activity. This distinction was made to focus the analysis on UA's ability to be profitable and sustainable as an agricultural business, rather than a social enterprise. Commercial urban farms may still produce a social benefit, but it is not their primary purpose. To frame the analysis, an extensive literature review, coupled with consultations with UA researchers, identified opportunities and threats to the economic viability of commercial UA. This review included online materials from case study urban farms, popular media presentations on UA, past UA studies, peer-reviewed journal articles, and investigations into organizations and policies that promote UA.

A snowball sampling technique, where interviewees are asked to recommend future interviewees from their personal networks, was used to identify potential case study farms and gather information and perspectives on commercial UA. This expert sample included more than 160 individuals, including farmers, advocacy organization representatives and community advocates, researchers, urban farm educators, urban farm service providers, foundation representatives, municipal and federal government officials, and legal professionals with urban agriculture experience.

The primary criteria used to refine the list of potential case study farms included gross revenue (earning a minimum of \$10,000 from the sale of agricultural products), primary location, farm maturity (at least 3 years), and agricultural products sold. Farms could supplement income through grants or other on-farm activities, but a significant portion of revenue had to be from food sales. Farms were also chosen to reflect a diversity of manager demographics (age, race, gender), geographies (cities of different sizes and densities), and farming practices (land-based/terrestrial, rooftop, controlled-environment). At the end of this process, 14 farms were selected as case studies: Mycopolitan Mushroom Company (Philadelphia, PA); Rising Pheasant Farm (Detroit, MI); Karen Fresh Garden (Kansas City, KS); Little City Gardens (San Francisco, CA), Brother Nature Produce (Detroit, MI); Our School at Blair Grocery (New Orleans, LA); Side Yard Farm (Portland, OR); Wilson Street Urban Farm (Buffalo, NY); Growing Home, Inc. (Chicago, IL); Love is Love Farm at Gaia Gardens (Decatur, GA); Springdale Farm (Austin, TX); Brooklyn Grange (Brooklyn and Queens, NY); Mellowfields Urban Farm (Lawrence, KS); and Green City Growers Cooperative (Cleveland, OH). These case study farms were visited in-person by the research team who conducted interviews with the farm managers, farm workers, consumers, local city officials, and other relevant stakeholders.

## Case Studies Takeaways

### ***Urban Farms Can Leverage Limited Resources by Using Innovative Strategies and Collaborating with Surrounding Businesses***

In addition to slim margins, urban farms must leverage limited resources such as land, capital, and water as much as possible in order to be viable commercial businesses. Rising Pheasant Farm, for example, grows 10-15 field-based crops each year, focusing on things they know they can grow well, that they succession plant, and that maximize their limited space. These crops include scallions, kale, chard, beets, and sun gold cherry tomatoes. "It might take more time, or more creativity, but it can help your bottom-line business-wise," says Rising Pheasant Farm's Carolyn Leadley, "especially because those solutions are less expensive or resource intensive." Rising Pheasant Farm transports produce to restaurants and farmers market by bicycle, illustrating this low-cost, low-impact philosophy. They own a Dutch cargo bike, a regular bike, and two cargo trailers; all of which eliminate fuel costs while allowing them to interact meaningfully with their neighbors and build familiarity.

Participants revealed additional strategies used to cut costs and capitalize on their urban locations and surrounding communities. Mycopolitan Mushroom finds individuals in the community with shared goals, makes partnerships, and identifies ways to utilize these local partners' available resources. Currently, they get coffee chaff and burlap sacks from a local business, La Colombe Coffee, and sawdust from Lehigh Valley Sawmills, to add to their soil beds. Brother Nature also utilizes local partnerships and gets manure from the Detroit zoo, spent brewers' grains from a brewery, coffee grounds from local coffee shops, and cut-down trees and leaves from their property to build up their topsoil. Lay Hyoo of Karen Fresh Garden works with other urban farmers to buy seeds together for lower prices. They also lend one another equipment and talk about production problems. Urban farmers understand—whether it be based on proximity, similar mission, or shared need—that taking a community approach and sharing resources and knowledge can be critical.

### ***Urban Location Creates Opportunities for Consumer Interaction, Product Development, and Additional Income Streams***

Based on their location, many urban farms have the benefit of being able to sell using a variety of market channels. The diversification helps to expand their customer base and spread the risk over multiple marketing outlets. All of the case study farms have diverse income streams, and many have small community supported agriculture (CSA) programs, farm stands, or a presence at farmers markets for direct sales. Several also use fairly informal sales at the farm (simple stand with cash “honor box”) to remain visible and available to neighbors.

According to the case study farms interviewed, direct marketing channels help them build relationships with their consumers as well as experiment with customer-influenced product offerings. For example, Brother Nature Produce created a signature salad mix when they moved to a new, much smaller, market location. They used the new market location, which is on a college campus, as an opportunity to interact more with their customers. They soon started offering a new value-added product line (prepared salads) based on consumer suggestions. This product line has continually gained in popularity. As a result, Brother Nature Produce is now creating a salad dressing made from their own vinegars and herbs to add to their offerings.

Urban farms are also able to easily benefit from non-production income streams, which help many farms round out their budgets. Six farms report earning income from on-site events, tours, or rent collected for use of the land by others. For two farms, this represents 25% or more of their total earned revenue. All fourteen farms participate in community or education events, but only four earned revenue from these activities. Those who were able to monetize educational activities typically did so through holding on-farm workshops, which constituted 3-14% of total earned revenue. Five farms earned money through off-site speaking events, which constituted 1-4% of the farm’s total earned revenue. The remainder of earned revenue came from off-site services like landscaping or installation of home gardens, or custom hire jobs like field preparation or snow-plowing. Seven of the fourteen case study farms earned revenue this way. Five consider it a critical part of their business model, and earn 8-28% of their total annual revenue this way. For the other two farms, it constitutes 2% or less of their total revenue.

### ***Urban Agriculture and Economic Development Can Co-exist***

Urban farms can sometimes find themselves in competition with other city priorities and residents who might have a perceived better use for the land and resources. It is easier to advance UA policy when it complements existing priorities and shows that UA does not have to be in conflict with economic development. In Philadelphia, Elisa Esposito, Urban Agriculture Coordinator for the City of Philadelphia Department of Parks and Recreation, says she and other UA advocates are “trying to change the city mentality of gardens as interim development,” and show how urban gardens and farms are a complementary permanent use. Permanent use requires considerations of long-term land tenure, comprehensive UA risk management, environmental health, and personal and public safety, suggests attorney and professor of food systems Nicole Civita. “Make sure [UA] ordinances are designed to create harmonious uses,” like a provision that beehives be kept a certain distance from property lines, states Civita. Without those provisions, there will be conflict over farms, she says. Cities like Portland, OR, that have a strong desire to increase density can also incorporate UA if it is done with other priorities in mind. “I see nothing wrong with UA so long as it does not detract from urban development,” says Portland land use attorney Carrie Richter. But when increasing affordable housing is a city priority, she says, “I would hate to see urban farms take the place of needed housing.” New Urbanist models of development that incorporate dense development with green infrastructure are examples of how both sets of urban priorities can harmoniously co-exist.

### ***Farmer Engagement and Knowledge of Industry Needs Informs More Effective Policies***

Not everyone making and enforcing policies has the same knowledge level about urban agriculture, its emerging trends, and the needs of urban farmers. As a result, some policies have an unintended negative impact on urban farmers and agricultural entrepreneurs. Bringing urban farmers to the conversation will allow for the distribution of knowledge about UA from a practitioner level and a more thorough discussion about impacts of policies on all individuals. Many farmers interviewed for this report were catalysts for, or significantly influenced, the changing of city policies making it possible for them to farm commercially in the city. Caitlyn Galloway and Brooke Budner of San Francisco’s Little City Gardens decided that rather than apply for a costly and difficult-to-secure conditional use permit, they would get the law changed. Their activism led to the redefinition of urban farms in San Francisco, which allows “neighborhood gardens” of less than one acre to exist in all zoned areas, as well as on-site sales. Similar activism by the Oakland Food Policy Council led to the citywide allowance of limited (non-animal husbandry-based) agriculture in Oakland.



### ***Proactive Policies Can Foster Faster and Sustained Growth***

As several case studies demonstrated, UA policy is often a reaction to existing agricultural pursuits in the city, rather than setting the stage for UA development. “The City seems to catch up after things happen on the ground,” says Harry Rhodes of Growing Home in Chicago. Because UA policy development is often reactionary, it does not always take into account the knowledge and opinions of practitioners in this industry, leading to inefficient and ineffective policies that hinder its growth. Stacey Givens, of Side Yard Farm, found the process of building her office and storage space extremely slow and expensive. “The permitting fees [for the building] alone were just as much as this building. It was about \$7,000,” she says. Additionally, the Bureau of Transportation stated that they considered the Side Yard a standard commercial site and required handicapped parking (“It cost about \$4,000,” says Givens). Because there was a lack of clarity on how to define her urban farm business and confusion on what regulations and requirements applied to her business, many of which would not apply to a traditional agriculture business or land zoned for agricultural activities, Givens faced many undue financial and time burdens when beginning her business. These burdens could have been lessened or completely avoided if policy makers, farmers and other relevant stakeholders had worked together to develop policies that better addressed and anticipated industry needs.

## **Considerations and Recommendations**

Derived from this study’s findings, based on a literature review, informant interviews, and site visits, the report calls for considerations and recommendations, a sample of which can be found below. Strategic adjustments to federal government programs, academic research priorities, city policies, and philanthropic investments have the potential to improve the viability of urban farms and the environment for commercial UA. Recommendations are designed for city officials, urban planners, funders, UA practitioners, and UA advocacy groups. Inclusion of urban farmers in the process is essential to advancing any of these recommendations.

**Urban Farms should register with the Farm Service Agency (FSA) and participate in the Census of Agriculture to take advantage of available Federal resources and be recognized as commercial farms.** The first step toward recognizing urban farms as commercial farms—rather than farm-like organizations—is to make sure they are recognized as farms in two important ways. First, urban farms must be encouraged to register with FSA to receive a farm number. FSA numbers enable farmers to participate in FSA loan and cost-share programs and the Natural Resources Conservation Service (NRCS) Environmental Quality Incentives Program (EQIP) high tunnel program that has been valuable to many urban farmers, and helps USDA include them in Census of Agriculture outreach. Second, urban farms must be encouraged to participate in the Census of Agriculture administered by the National Agriculture Statistics Service (NASS) of USDA. Integrating urban farms into the Census of Agriculture is the foundation for discovering how other USDA programs relate to UA in its real-world, multivariate contexts.

**Increase awareness and understanding of available resources.** Many urban farmers that were interviewed were not aware of USDA or University Extension resources (i.e., personnel and programs) that could support their businesses, or they believed they were ineligible for the available resources. Correcting misinformation and improving the coordination between USDA, University Extension, and UA practitioners is vital to the success of commercial UA. The resurgence of UA and the emergence of Controlled Environment Agriculture (CEA) operations (i.e., greenhouses, aquaponics, hydroponics) require innovative training, education, and promotion of USDA programs. Urban farmers have asked specifically for coaching to successfully apply for USDA programs, and city-based officers have the best opportunity to get to know the farms and recommend programs that best fit their needs and improve their bottom lines.

Also, while the USDA Urban Agriculture Toolkit, released in 2016, is a good summary of USDA programs that can assist urban farmers, according to interviewees, some programs it lists are more likely to have an impact than others. Those interviewed suggest that information about the scope of these programs be shared. The following efforts will ensure that USDA programs that best fit urban farm needs will have maximum impact: promote urban farm successes with high-impact USDA programs; raise the profile of USDA programs with strongest UA potential; remove the ‘rural’ mandate from programs that could assist urban farms; and facilitate UA participation in crop insurance programs.

**Convene food system funders to better coordinate UA funding.** Several current and former employees of philanthropic foundations say that while there is a lot of momentum behind UA and food systems generally, grant-making is not coordinated to achieve broad strategic goals. Diffuse disorganized funding for UA leads to isolated projects, limited impact, and poorly transmitted information. Funder networks can support the coordination of UA funding to maximize impact by sharing plans, findings, and lessons learned which can help foundations and philanthropists make meaningful investments to support the needs and goals of urban farmers and the people they serve. Coordinating funding around set priorities can also help urban farms and related organizations work together to scale their impacts. An example of such efforts is being conducted by Food Well Alliance, an Atlanta-based granting organization that has set out to bring together stakeholders from across the metro-region’s food system—including funders and University Extension—to draw a “roadmap” of priorities for the local food system. The goal is to collaborate across private, nonprofit, and public interests to capitalize on funding and resources to build a stronger, more integrated food system.

**Conduct a critical analysis of existing UA policies and communicate best strategies.** Early adopters of UA said they spent a lot of time educating city leaders about farming, dispelling myths, and showing the value of growing food in cities. An analysis of city-level urban agriculture policies and a dissemination of best practices in urban agriculture planning could help city planners across the country identify successful policies and prevent cities from spending time and resources to recreate strong existing UA policies. Based on stakeholder interviews, primary topics to consider when conducting an analysis of existing UA policies were identified. They include:

- Are these policies working in tandem with municipal support (zoning ordinances, access to land, water, clean soil, etc.)?
- Is there an undue burden (amount of paper work or time required, complicated process, etc.) being put on UA practitioners in order to be compliant with policies? Is there a way to improve the process and requirements?
- How is it being ensured that the policies impact and benefit all individuals equally and equitably?
- Do the policies require privileged access to resources (e.g. capital, investments, loans, education, and political connections) that undermines lower-resourced people and their ability to achieve economic gains from urban agriculture?

**Target future trainings on key issues constraining urban agriculture development.** Urban farms looking to scale toward commercial viability are in need of training aimed at a few specific issues: business development, labor management, risk management, and liability. Potential training topics could include: production practices; business planning; recordkeeping and finance management; Department of Labor regulations related to employer responsibilities (e.g. worker’s compensation, overtime, payroll); and additional insurance protections needed for business risk management.

**Expand efforts to collect impact data on the ecological and social services performed by urban farms.** Advocates of urban farms suggest that such farms have significant social benefits that add value to urban residents’ quality of life. However, it is difficult to ascertain what those benefits are “worth,” or if they exist. These stated social benefits include, but are not limited to, community development (safety, increased property values), consumer education, access to jobs and job-training, increased food access, air quality improvements, and stormwater runoff management. Working to evaluate these types of impacts can help UA advocates to better explain the full benefits of UA to urban planners, city officials and potential funders.

## Contact Information

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