

Factors Contributing to the Growth of Urban Agriculture in New York City

By Nevin Cohen, Ph.D., Associate Professor, City University of New York (CUNY) School of Public Health, Director, CUNY Urban Food Policy Institute.

Despite its large population and dense urban form, New York City has a substantial and vibrant urban agriculture sector, with more than 550 community gardens, more than 800 schools with garden projects, dozens of large urban farms operated by non-profit organizations, commercial farms including building-integrated food production on rooftops and in greenhouses, and many private gardens used informally to grow food. By one estimate, more than half (53.3 %) of New Yorkers have access to a community garden within a 15-minute walk from their home.¹

Land Use Policy

The scale of urban agriculture in New York City resulted from a long tradition of policies and programs to support and promote food production. New York's zoning has allowed urban agriculture in all types of zones: residential, commercial, and manufacturing, a huge advantage to the development and growth of gardens and farms in New York City. Recent zoning changes encouraged rooftop agriculture by permitting rooftop greenhouses to not count toward the floor area of a building and to exceed the height limit of the underlying zoning district. The building code requires roofs on new or substantially renovated buildings to be covered by either solar panels or a green roof system. While developers can opt for a passive green roof, this building code has led some to install active food producing rooftops.

Economic Development Policy

Since 1978, New York City has funded GreenThumb, the nation's largest urban gardening program. GreenThumb is an office within the city's Parks Department that helps community gardeners throughout New York City through free land access, materials, technical assistance, public programming, and community engagement. The city runs the NYC Compost Project, which offers free compost to residents and offers a course to support home composting. Within the past decade, New York has directed different agencies that are responsible for providing spaces for entrepreneurs and providing financial support for new businesses, to help strengthen urban agriculture startups. The city has provided resources like incubator space and other financial support for agri-tech startups.

Education

New York City has a very large public school system, with about a thousand school buildings and more than a million students. Over 800 schools have garden projects supported by a program

¹ Limerick, S., Hawes, J. K., Gounaridis, D., Cohen, N., & Newell, J. P. (2023). Community gardens and the 15-minute city: Scenario analysis of garden access in New York City. *Urban Forestry & Urban Greening*, 89, 128107.

called GrowNYC School gardens, a partnership of the non-profit organization GrowNYC, New York City Parks GreenThumb, and the New York City Department of Education. In addition, there are nonprofit organizations like Green Bronx Machine that provide ways to teach science, technology and environmental concepts to young children through urban agriculture, and Teens for Food Justice, a nonprofit that uses urban agriculture in high schools to teach young people about the social justice dimensions of the food system, not only how to grow food but also how to advocate for fair policies in the food system. A workforce training program run by the organization Green City Force uses federal funds to enable young people in public housing developments to gain employment skills by working at farms that have been built in the center of six large scale housing developments.

Nexus Policies

New York City has been a leader in recognizing the many co-benefits of urban agriculture that relate to different domains that are important to city governments. In particular, the city has advanced policies that support urban agriculture and also address nexus issues like climate resilience.² For example, the city's green infrastructure program, which is designed to help abate stormwater surges and to reduce the impact of stormwater on the city's sewage treatment plants, provides funding for private building owners or landowners to invest in urban farms.³ New York State also helped fund a study in the Lower East Side of Manhattan, a low-lying neighborhood that tends to flood, to propose redesigning the urban farms and gardens in that area to serve as a barrier to stormwater surges². Moreover, the city government distributes compost, rain barrels and cisterns to urban farms and gardens, also as a form of green infrastructure. And a new project called PUREsoil NYC mixes the soil excavated for large scale building that lacks nutrients with organic matter to create a valuable growing medium that is made available for free to gardens and farms throughout New York City.

Governance

Governance is critical to urban agriculture. In 2022, the city created a dedicated Office of Urban Agriculture. The office was made part of the Mayor's Office of Climate and Environmental Justice, illustrating that the city's focus is broader than food production. The urban agriculture office was established to promote urban agriculture throughout New York City, but also to help integrate thinking about urban agriculture and supporting urban agriculture across different municipal agencies. The city has begun to form an urban agriculture advisory board with people from the urban agriculture industry, nonprofits, academics, and others.

² Fox-Kämper, R., Kirby, C. K., Specht, K., Cohen, N., Ilieva, R., Caputo, S., ... & Béchet, B. (2023). The role of urban agriculture in food-energy-water nexus policies: Insights from Europe and the US. *Landscape and Urban Planning*, 239, 104848.

³ Cohen, Nevin, and Katinka Wijsman. "Urban agriculture as green infrastructure: the case of New York city." *Urban Agriculture Magazine* 27 (2014): 16-19.