Land Lines

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Farming Inside Cities

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When people think of growing food in the United States, the images that come to mind are vast stretches of vegetable and fruit tree farms in California's Central Valley, golden fields of wheat in the Plains states, and cows grazing on verdant rural landscapes in the Midwest and New England. Rarely is the image one of farming inside American cities. Yet, in an increasing number of cities today—especially those substantially affected by structural economic change and population loss over the past several decades—community-based organizations are growing food for the market on vacant lots, in greenhouses, and even in abandoned warehouses. Some of these groups market their products at local farmers markets, roadside stands, restaurants and supermarkets. Others convert their harvests into value-added products like salad dressings, jams and salsas for sale in regional markets.

Starter plants for community gardens are grown in this 3,000 square-foot greenhouse renovated by Milwaukee's Growing Power.

A Conceptual Three-Legged Stool

Our recently completed study, supported by the Lincoln Institute, explored the characteristics of entrepreneurial urban agriculture in the U.S., key obstacles to its practice, and ways of overcoming these obstacles. The study framework can be visualized as a wobbly three-legged stool that needs to be made sturdier. One leg of the stool represents inner-city vacant land and the government agencies and their policies that affect its disposition and management. The scale of the vacant land problem in many American cities, particularly in the Midwest and Northeast, is significant. Philadelphia, for example, has an estimated 31,000 vacant lots and as many as 54,000 vacant structures that, if demolished, would add considerably to its vacant land supply. Detroit's inventory of 46,000 city-owned vacant parcels is accompanied by an estimated 24,000 empty buildings. Even smaller cities are faced with a stockpile of vacant land. In Trenton, New Jersey, a city of 85,000 people, eighteen percent of the land is vacant. Despite the spread of gentrifying neighborhoods and new in-town developments in many cities, considerable amounts of vacant land, especially in disadvantaged neighborhoods, will likely continue to lie fallow because of limited market demand.

The second leg represents for-market urban agriculture, a movement of individuals and organizations who wish to produce food in cities for direct market sale. The initiators of these projects are a diverse group—community gardeners, community development corporations, social service providers, faith-based organizations, neighborhood organizations, high schools, animal husbandry organizations, coalitions for the homeless, farmers with a special interest in urban food production, and profit-making entrepreneurs. Proponents of for-market urban agriculture put forth a wide range of benefits, such as instilling pride and greater self-sufficiency among inner-city residents; using vacant lots in disadvantaged neighborhoods to nurture growth rather than to collect trash; supplying lower-income residents with healthier

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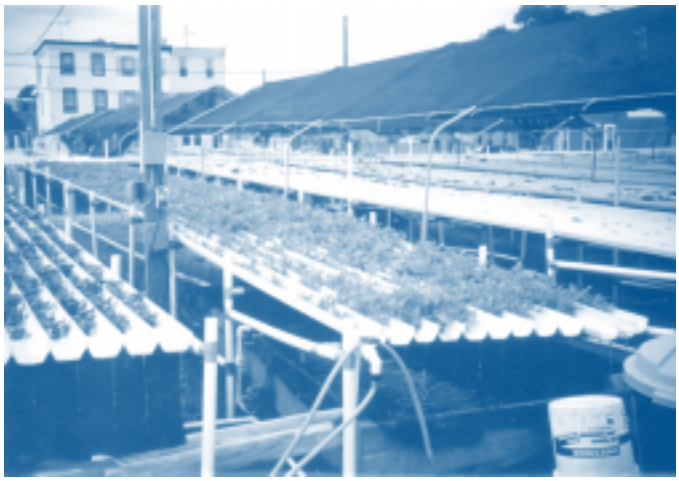
and more nutritious foods; providing local youth with jobs in producing, processing and marketing organically grown food; and reducing the amount of unproductive city-owned vacant land.

The third leg of the conceptual stool represents the institutional environment for urban agriculture within cities. Is it accommodating, neutral, skeptical or restrictive? The more that entrepreneurial urban agriculture is seen positively by local government officials, local foundations and the public, the greater the likelihood of a smoother future. But, when the institutional climate is indifferent or cool, then urban farming advocates will clearly encounter more difficulties. We found the overall climate for entrepreneurial urban agriculture to be mixed, with some supporters, many who seemed indifferent, some skeptics, and even a few who were decidedly hostile to the idea.



Water pumped into plastic gutters irrigates lettuce that will be marketed to local restaurants by Greensgrow Farm in Philadelphia. This hydroponic system sits on the site of a former galvanized steel plant.

A Medley of Projects

Our study uncovered more than 70 for-market urban agriculture projects throughout the country. Four representative examples are summarized here.

Greensgrow Farms, Philadelphia. This small for-profit producer of hydroponically grown vegetables epitomizes the potential that agriculture offers as an urban land use. Greensgrow began in 1997, when two former chefs envisioned a practical way to meet the demand from Philadelphia restaurateurs for fresh, organically grown produce. Greensgrow occupies a three-quarter-acre site in North Philadelphia that has been cleaned of the contamination left from its former use as a galvanized steel plant. After a site lease was arranged through the New Kensington Community Development Corporation, the partners built an extensive hydroponic system to produce gourmet lettuces.

Greensgrow has since taken advantage of an EPA sustainable development grant and a donated greenhouse to grow and market lettuce, heritage tomatoes, herbs and cut flowers to 25 area restaurants after the outdoor growing season ends. The for-profit side of Greensgrow expects to break even in 2000 with revenues of $50,000. Its community-based side has hired three welfare-to-work participants and intends to develop a job training and entrepreneurial program in collaboration with the nearby Norris Square CDC.

Growing Power, Milwaukee. In some cities, farm sites may be part of a larger enterprise. For example, inner-city youth in Milwaukee are providing horticulture and landscaping services on a number of central city sites under the auspices of Growing Power, Inc., which is co-directed by an African-American farmer and a woman active in youth gardening and training. The organization aims to help inner-city youngsters attain life skills by cultivating and marketing organic produce, and to operate a community food center that can serve the broader community through education and innovative programming.

Growing Power's nerve center, on a 1.7-acre site on Milwaukee's north side, is a collection of five renovated greenhouses that were in dilapidated condition when purchased from the city in 1992. The center also features a farmstand, a vegetable garden and fruit trees, and an area where food waste from a local supermarket is being converted into compost. The greenhouses contain thousands of starter vegetable and flower plants, ten three-tank aquaculture systems (where tilapia, a freshwater fish, grow in inexpensive 55-gallon plastic barrels) and a vermiculture project consisting of wooden bins in which worm castings are collected by youngsters and sold back to Growing Power for use in its city gardens. Marketing some of its products to the public is also part of Growing Power's mission.

The Food Project/DSNI Collaboration, Boston. The Dudley Street Neighborhood Initiative, a well-known example of community organization and empowerment, considers urban agriculture essential to the transformation of its section of Roxbury into an urban village. Since 1993, this effort has been aided by DSNI's collaboration with The Food Project, based in the Boston suburb of Lincoln. Like Growing Power, The Food Project aims to link youth development with the enhancement of urban food security. Its core activity is a summer program involving up to 60 high school students, some from the suburbs and some from Roxbury, in cultivating organic produce on a 21-acre farm in Lincoln and on two parcels within DSNI's target area.

Collards, tomatoes and herbs now grow within sight of the new housing units developed by DSNI's associated organizations. Much of the harvest is sold at a weekly farmers' market in the nearby Dudley Town Common. The young farmers have become proficient at presenting their activities to Bostonians visiting the market and at youth gatherings nationwide. For the future, DSNI and The Food Project have identified other sites in Roxbury on which to expand urban food production. In addition, DSNI will convert a former garage in the neighborhood into a 10,000 square foot community greenhouse.

Village Farms, Buffalo. A corporate presence in urban agriculture is rare, but a notable exception is Village Farms in Buffalo. The goal of Village Farms' parent corporation, AgroPower Development (APD), is simply to maximize profits, although it does provide jobs for central city residents. In its 18-acre greenhouse, the company uses a Dutch growing method whereby tomato plants are grown in porous, rock-wool blocks to produce up to eight million pounds of tomatoes a year, which are marketed primarily to area supermarkets.

A number of incentives lured Village Farms to a vacant 35-acre industrial site close to the downtown that sits in both a federal Enterprise Zone and a city econ-

omic development district. Although APD does not release sales figures, it is satisfied with the operation and hopes to replicate it in other cities. For its part, the city of Buffalo points to Village Farms as a success story—an innovative, nonpolluting business that is using vacated industrial land.

Overcoming Obstacles

The obstacles to urban agriculture can be formidable, but persistence, organizational capacity, political savvy, outside support, and some good fortune have demonstrated that they are not insurmountable.

Site-related Obstacles. Several critical problems in producing food inside cities are tied to attributes of the sites themselves. First, vacant urban parcels give visible and sometimes less-visible evidence of past use. While they may be cleared of debris and rubble, almost all sites have some subsurface contaminants that may affect the safety of any produce harvested. This obstacle can be overcome through several approaches that together have come to characterize urban agriculture practice. Planting crops in raised beds of clean, imported soil is the most straightforward approach, and is less costly than the more involved practice of amending existing urban "soil" with truckloads of compost and humus. Soil-free hydroponic practices avoid the contamination issue, as in the elaborate Greensgrow system that sits four feet above cracked concrete, and give urban agriculture the cutting-edge feel displayed at Village Farms.

A second, more challenging site-related obstacle is lack of tenure, since the majority of urban agriculture activities are on sites owned by private landowners or public agencies who view urban food production as a temporary use. This is a common concern for community gardeners, and has carried over into entrepreneurial city farming endeavors. One solution is represented by the growing number of open space land trusts that acquire title to properties on which urban farming is already being practiced.

The logic of the urban land market results in a third site-related obstacle—the view that the value of a vacant parcel is primarily economic and that urban agriculture produces low revenues compared to other forms of land development. One way to overcome this perception is to emphasize that most urban agriculture activities are initiated by non-profit organizations for the community good. Thus, city farming should be seen by the public as a combination of earned revenue (in the case of market operations) and less quantifiable social benefits that are equally if not more important to the community interest.

Perceptual Obstacles: The greatest overall obstacle to urban agriculture is skepticism among those who, in different ways, can support and influence its initiation and practice—local government, private landowners, financial supporters and community residents. Their skepticism is based on either a simple lack of awareness or the conventional means of valuing urban land based on market factors. Another group of concerns reflects doubts about the wisdom of growing food in cities because of site contamination, security and vandalism, or the "highest and best land use" argument. A related perception is simply that agriculture is a rural activity that does not belong in the city.

A key to effectively overcoming these perceptions is to understand that the future of city farming depends on the level of acceptance and support it can garner from institutions such as local and state governments, the federal government, local philanthropic foundations, CDCs, the media and neighborhood organizations. Time after time, the city farming advocates we interviewed stressed the importance of "packaging" their activities to decision makers and the public so that the multiple benefits could be seen and valued clearly.

Conclusion

Both vision and reality informed this study. The vision foresees a scenario where vacant land in parts of American cities would be transformed into bountiful food-producing areas managed by energetic community organizations that market some or all of the food they grow for the benefit of community residents. Proponents of such a vision would clearly like to see urban farming's small footprint enlarged in cities with increased supplies of vacant land. The reality, however, is more sobering. Many for-market urban agriculture projects are underfunded, understaffed, and confronted with difficult management and marketing issues. Nor is urban agriculture on the radar screens of many city government officials as a viable use of vacant inner-city land.

Yet, signs of a more hopeful reality are apparent. A diverse array of innovative for-market city farming ventures are making their presence known, and pockets of support for city farming are found among local and higher-level government officials, community organizations, city residents and local foundations in several cities. Some entrepreneurial urban agriculture projects are beginning to show small profits, while many more are providing an array of social, aesthetic, health and community-building benefits. The legs of the nascent movement of for-market city farming are gradually becoming sturdier.

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REFERENCES

Jerry Kaufman and Martin Bailkey. 2000. "Farming Inside Cities: Entrepreneurial Urban Agriculture in the United States." Lincoln Institute Working Paper. 122 pages, $18.00, WP00JK1. Also available on the Lincoln Institute website: *www.lincolninst.edu.*

Proposal Deadline Is March 1, 2001

The Lincoln Institute announces its annual funding cycle to select proposals for research projects, case studies, courses, curriculum materials and dissertation fellowships that focus on land use planning, land markets and land-related taxation policies.Proposals must be received at the Lincoln Institute by March 1, 2001, to be considered for funding during the 2002 fiscal year (starting July 1, 2001). To obtain a copy of the Request for Proposal guidelines, you can download the document from the Institute's website (**www.lincolninst.edu**), request a copy by email (**help@lincolninst.edu**) or call 1-800-LAND-USE (526-3873).