

FROM FACTORIES TO FRESH FOOD

Planning for Urban Agriculture in Somerville



Tufts Department of Urban and Environmental Policy and Planning. Field Projects 2010.
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ABSTRACT

Somerville, Massachusetts was historically an area with farms, backyard gardens, livestock, and food processing facilities. The emergence of industry, however, changed the dynamic of the city and now Somerville is densely populated, has much less industry than at its historic high, and little space for agriculture. However, in recent years Somerville's local food movement has enjoyed a surge in popularity. Our report suggests ways that the city of Somerville and its non-profit allies – including our client Groundwork Somerville – can increase the amount of food grown in the city and methods for establishing a local distribution scheme to benefit both gardeners and Somerville residents. Our primary recommendations are to increase the available public space for gardening, begin a city-wide yard waste and food scrap

collection program for composting, establish a gardeners' network to support backyard and market gardeners, promote innovative growing techniques for small spaces, and establish a shared-use community kitchen. While we don't expect that Somerville will ever meet its own fresh food needs with Somerville-grown produce alone, we nonetheless suggest long-term objectives such as establishing a model for a backyard garden-to-consumer marketing program that could economically support backyard gardeners in addition to promoting the eating of more locally-produced vegetables and fruit, and we also suggest the development of edible or green corridors that would reconnect Somerville's scattered open spaces and re-establish its agricultural heritage.

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EXECUTIVE SUMMARY

Somerville, Massachusetts was historically an area with farms, backyard gardens, livestock, and food processing facilities. With the emergence of industry and then heavy industry as major economic drivers from the mid-1800's to the mid-1900's, the soil was rendered unsuitable for crop cultivation due to contamination, while the increasing urbanization of the city paved over much of the remaining available open land.

However, in recent years, Somerville's local food movement has enjoyed a surge in popularity. Our client, Groundwork Somerville, a local nonprofit organization focused on the Somerville community and the built environment, initially requested that we assess ways of implementing a "backyard to market" local distribution program in Somerville. As it quickly became clear that the current urban garden production in Somerville isn't sufficient to even meet gardeners' personal needs, our client agreed that assessing methods for increasing urban agriculture production in the city would be a more effective goal for this project.

The results of our pilot gardener survey, though not reflecting the diversity of Somerville or its gardeners, clearly shows that further discussion with Somerville's gardeners will be of great use in guiding policy. Therefore, we suggest that Groundwork Somerville survey more Somerville gardeners, ideally with translated versions of the survey, to capture information that reflects the demographic diversity of the city.

Through case studies of urban agriculture distribution networks in other cities, the creation and circulation of a pilot survey to Somerville gardeners, research into community kitchens elsewhere, and research of the laws and regulations governing food production for distribution and sale, we have compiled short-term and long-term recommendations for expanding Somerville's urban agriculture landscape.

Recommendations such as encouraging the city of Somerville to change zoning laws so as to allow the planting of fruit trees on public land, clarifying ordinances so that citizens may keep chickens and bees, as well prioritizing the creation of – and ensuring the permanence of – community gardens, were drawn from our research on urban agriculture practices in other cities but are applicable for Somerville. Additionally, recommendations such as the launch of a city-run composting program – similar to existent programs in Cambridge, Massachusetts and other locations – would help address gardeners' needs for dealing with the pervasive soil contamination in the city.

For community organizations such as Groundwork Somerville, valuable work can be done in advocacy, community organization, and support. Urban agriculture flourishes in the presence of a strong community gardeners' network, and these organizations can encourage not only popular support for necessary or helpful government action, but also such initiatives as the streamlining of any licensing processes or

the removal of cumbersome bureaucratic hurdles. Somerville residents are in turn supported by these organizations, as the advice on imaginative uses of diminutive garden space, recommendations for the types of crops that might sell well, and additional resources and guidance, are invaluable.

Cooperation between government offices and community organizations is critical to the creation and continued existence of a successful urban agriculture network. Some desirable products of such a network, such as a community kitchen or a learning farm, are not achievable without this cooperation. Recommendations for how Groundwork Somerville and the city of Somerville can address urban agriculture initiatives together have been highlighted.

Fortunately, Somerville is primed to adopt these changes thanks to the city government's interest in local food production for more healthy communities and the outstanding efforts of Somerville's urban agriculture and gardening organizations. A twenty-year Comprehensive Plan for the city is currently being developed, and organizations such as Groundwork Somerville, are well-placed to forge necessary connections and stimulate enthusiasm and support throughout the community. Decisive action today could place Somerville at the forefront of the urban agriculture movement and position local organizations, the community, and the municipal government as models for visionary action in dense urban settings.



INTRODUCTION

INTRODUCTION

Groundwork Somerville has been a leader in programming that promotes creative land use, including urban agriculture, in Somerville. The UEP Field Project team's initial assignment – to explore potential opportunities and methods for distributing local produce from home gardens to area businesses like restaurants, cafes, and markets – followed from that. But it quickly became evident that more detailed information about the current state of Somerville's urban agriculture and gardening community was needed in order to advance our understanding of how to scale up Somerville's agricultural production and distribution. Our team and client agreed that a valuable tool for Groundwork Somerville would be an assessment report that not only offered a snapshot of the 'Who', 'What', and 'Where' of urban agriculture in Somerville, but also, more importantly, provided the 'When' and 'How' to identify promising trends for policy makers looking to enhance urban agriculture in the city. To develop realistic goals for Groundwork Somerville and the municipality, we used information from surveys, interviews, and research with local actors, community members, urban agriculture groups, and existent urban agriculture literature.

Somerville's Agricultural History

Somerville has a deep history of producing and processing food. Early records suggest a Native American cornfield was once located on Convent Hill in East Somerville, with the European colonists arriving here from Boston and Charlestown to farm. Agriculture, dairying, and stock-raising remained

dominant in Somerville's economy until the Revolutionary War, after which Somerville saw a considerable population increase and heavier industry, much of which was based upon processing food. Railroad, road, and canal infrastructure later helped to establish Somerville as a major center for the meatpacking industry in the early industrial period (mid-1800s).¹

Good transportation links proved attractive to heavier industries in the 1800s, including brick making, a bleachery, and a brass tube factory. Mills, ironworks and glassmaking industries followed, alongside food processing facilities like distilleries, vinegar works, bakeries, and the ever-present meat packers. Agriculture peaked in 1865 with the census recording 22 farms, but declined significantly between 1915 and World War II, when the last open land was lost to residential subdivisions. More heavy industry followed, with the Ford Motor Company operating a facility in Somerville from 1927-1958. Ford was the largest employer in the area at the time, and the closure of its plant corresponded with a decrease in heavy industry in Somerville that continues today.²

1 Massachusetts Historical Commission, "Reconnaissance Survey Town Report – Somerville," (1980), <http://www.sec.state.ma.us/MHC/mhcupdf/townreports/Boston/smv.pdf> (accessed April 4, 2010)..

2 Albert L.Haskell, "Haskell's Historical Guide of Somerville, Massachusetts," http://www.ci.somerville.ma.us/CoS_Content/documents/HaskellsHistoricalGuideBook.pdf (accessed April 4, 2010).

SOMERVILLE'S ENVIRONMENT (PHYSICAL AND POLITICAL)

Somerville's industrial legacy – together with lead from house paint and vehicle exhausts – has severely degraded the soil. The USDA's Natural Resources Conservation Service classifies most of Somerville's soil as "urban land" and "udorthents" (soil disturbed by human activity). Additionally, Somerville's soil is very acidic, which creates a challenging environment for growing food.³

The 2000 Census recorded Somerville's population at 77,478 in 4.1 square miles, making the population density the highest of any community in New England with 18,897 people per square mile, and thus leaving little room for traditional in-ground food production.⁴

There are presently two city initiatives that have the potential to increase the amount of food grown in Somerville. The "Shape Up Somerville" program is a citywide initiative aimed at increasing "daily physical activity and healthy eating through programming, physical infrastructure improvements, and policy work."⁵ Shape Up Somerville is an indicator of the importance the City and Mayor Joseph Curtatone place on encouraging

3 USDA Natural Resource Conservation Service, "Web Soil Survey," <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm> (accessed April 4, 2010).

4 City of Somerville website, <http://www.somervillema.gov/AboutSomerville.cfm> (accessed April 4, 2010).

5 City of Somerville, "Shape Up Somerville," <http://www.somervillema.gov/Division.cfm?orgunit=SUS> (accessed April 4, 2010).

healthy lifestyles. Somerville is also currently half way through a new Comprehensive Plan, with anticipated approval between October and December 2010. Part of the vision statement for the Comprehensive Plan includes objectives that naturally align with urban agriculture, including:

- build a sustainable future through strong environmental leadership
- balanced transportation modes
- engaging recreational and community spaces
- exceptional schools and educational opportunities
- improved community health
- varied and affordable housing options
- effective stewardship of our natural resources⁶

The Comprehensive Plan represents an opportunity not to be missed for addressing the many hurdles budding gardeners in Somerville face in regards to growing food in the city. Inclusion of urban agriculture in Somerville's Comprehensive Plan could bring Somerville closer to its roots as a thriving agriculture community.

Groundwork Somerville is active in both Shape Up Somerville and the Comprehensive Plan visioning process. Groundwork Somerville is an advocate for environmental education, recreation, and youth programs, in addition to being a key organization supporting urban agriculture in Somerville. Our

6 City of Somerville, *Somerville Vision Statement 2010-2030*, http://www.somervillema.gov/cos_content/documents/Vision%20Statement_2.23.10_Final1.pdf (accessed April 4, 2010).

team recognizes that, particularly at this timely moment, this report will be most useful if it provides actionable information that Groundwork Somerville can draw on to lobby for policies that strengthen and expand the existing urban agriculture landscape of Somerville.

THE LOCAL FOOD MOVEMENT

The last hundred years have seen an intense restructuring of the food system into a global network of farmers, distributors and consumers. In 2005, it was estimated that the average American meal traveled between 1500 and 2500 miles from farmers' fields to consumers' forks.⁷ The new international food chain is often critiqued as a major contributor to both climate change⁸ and the obesity epidemic.⁹ With this dire prognosis for both people and planet as a backdrop, the local food movement has sprung up as an environmentally-, economically- and health-conscious alternative to the conventional food system. The popularity of this notion is exemplified by the explosion in the number of farmers' markets and community supported agriculture operations across the country.

7 Brian Halweil, "Home Grown: The Case For Local Food In A Global Market", (Washington DC: The Worldwatch Institute, 2002).

8 R. S. DeFries, C. B. Field, I. Fung, G. J. Collatz, and L. Bounoua, "Combining Satellite Data and Biogeochemical Models to Estimate Global Effects of Human-Induced Land Cover Change on Carbon Emissions and Primary Productivity," *Global Biogeochemical Cycles*, 13 (1999): 804.

9 Corinna Hawkes, "Uneven dietary development: linking the policies and processes of globalization with the nutrition transition, obesity and diet-related chronic diseases," *Globalization and Health* 2(2006):4, www.globalizationandhealth.com/content/2/1/4 (accessed March 15, 2010).

Despite the surge in interest in local foods, there is no standard definition of the term "local" and not all agree that it is better than the conventional food system. The "100-mile diet" is a popular (albeit arbitrary) designation made famous by the bestselling book of the same name, while the Boston Localvores encourage their members merely to "buy some of what they eat outside (of) mainstream food production."¹⁰ "Buy fresh, buy local" campaigns exist in several regions to encourage people to purchase foods produced within that region. Other definitions follow political boundaries and stay within state,¹¹ county,¹² or city¹³ limits. Some researches warn consumers not to fall prey to the "local trap" in assuming that local agriculture is inherently better than conventionally grown produce when that is not always the case.¹⁴ In the popular media, articles in *Forbes*¹⁵ and the *New York Times*¹⁶

10 Boston Localvores, "Frequently Asked Questions," <http://bostonlocalvores.org/frequently-asked-questions> (accessed April 5, 2010).

11 Christian J. Peters et al. "Mapping Potential Foodsheds in New York State: A Spatial Model for Evaluating the Capacity to Localize Food Production." *Renewable Agriculture and Food Systems*. 24(2009): 72-84.

12 Kami Pothukuchi, "The Detroit Food System: A Handbook for Community Planners" (Detroit, MI: Wayne State University, 2003).

13 Sarah Unger and Heather Wooten, "A Food System Assessment for Oakland, CA: Toward a Sustainable Food Plan," (Oakland: Oakland Mayor's Office of Sustainability, 2006), <http://oaklandfoodsystem.pbworks.com/> (accessed April 4, 2010).

14 Brandon Born and Mark Purcell, "Avoiding the Local Trap: Scale and Food Systems in Planning Research," *Journal of Planning Education and Research*, 26(2006): 196.

15 James McWilliams, "The Locavore Myth." *Forbes Magazine*, August 03, 2009. Available at <http://www.forbes.com/forbes/2009/0803/opinions-energy-locavores-on-my-mind.html> (accessed 4/5/2010).

16 Stephen Dubner, "Do We Really Need a Few Billion Locavores?" *New York Times Freakonomics Blog*, comment posted June 9, 2008, <http://freakonomics.blogs.nytimes.com/2008/06/09/do-we-really-need-a-few->

have questioned the legitimacy of some of the environmental claims associated with buying local. Backlash against this amorphous movement has risen, but the popularity of local produce continues to grow.

Urban agriculture is a highly visible part of the local food system, and helps to promote healthy lifestyles, and the environmental and social sustainability of the city. Community gardens and other urban agriculture sites provide fresh sources of produce as well as act as a site for recreational activities for urban residents.¹⁷ Gardens can facilitate interactions among individuals from different socioeconomic backgrounds, and have been shown to enhance neighborhood cohesion and community engagement.¹⁸

SOMERVILLE – PEOPLE, FOOD, AND GARDENS

Farmers' Markets in Somerville

Just as in urban locations all over the country, the local food and agriculture movement in Somerville is thriving. Somerville currently has two farmers markets: one in Davis Square on Wednesdays, and one in Union Square on Saturdays. Despite their spatial proximity (they are 2 miles apart), these two markets are run very differently. The Davis Square farmers

market is operated by the Federation of Massachusetts Farmers Markets (FMFM). FMFM aims to improve farm viability through direct-marketing of locally produced goods.¹⁹ Due to this, non-profit organizations like Groundwork Somerville are not permitted to participate in the Davis Square market because farming is not the organization's primary source of operational funding and concern exists that non-profits will undercut the prices that farmers charge.

In contrast to the Davis Square market, the Union Square farmers market is operated by the Union Square Main Streets program and is focused on bringing business to Union Square. Since its inception in 2005, it has allowed Somerville residents to participate as guest vendors alongside standard farm retailers at its "Grown in Somerville" booth. For a \$25 weekly rental fee, local artisans and community organizations are allowed to use the booth during the farmers market to sell their produce and promote their causes.

In the past, Union Square Main Streets has sought out backyard gardeners to participate in the booth, while concluding that gardeners do not have enough produce to merit a table of their own. Should backyard gardeners choose to participate in the future, they are required to file an application and provide test results showing that their soil is free of contaminants.

billion-locavores/ (accessed April 5, 2010).

17 S. Wakefield et al., "Growing Urban Health: Community gardening in South-East Toronto," *Health Promotion International*, 22 (2)(2007): 92-101.

18 J. Ferris, C. Norman and J. Sempik, "People, Land and Sustainability: Community Gardens and the Social Dimension of Sustainable Development," *Social Policy & Administration*, 35 (5)(2001): 559-568.

19 Federation of Massachusetts Farmers Markets webpage, http://www.massfarmersmarkets.org/FMFM_Main.aspx (accessed April 5, 2010).

A Diverse Community and Gardeners

Somerville's well-documented population demographics reveal the city's diversity. The area has always been a magnet for immigrants, attracting primarily the Italian and Irish between 1850 – 1950, and immigrants from a broader range of countries in the latter half of the 20th century. In 2000, nearly 30% of Somerville's 77,000 residents were born outside of the United States.²⁰ According to the 2000 census, residents came from countries such as Brazil, Portugal, El Salvador, Haiti, China, Italy, India, Canada, Ireland, and Guatemala (in order of frequency).²¹ In addition to English, this diverse population speaks many languages, most commonly Portuguese, Spanish, Haitian-Creole, Italian, Chinese (in order of frequency).²² Foreign-born residents and non-native English speaking residents tend to be spatially dispersed throughout Somerville, with the highest concentrations in Clarendon Hill, East Somerville, Gilman Square, Union Square, and Winter Hill. Areas of Somerville with the fewest foreign-born residents and lowest number of non-native English speakers are Ball

Square, Davis Square, Inner Belt, Porter Square, and Spring Hill.²³

Unfortunately, less is known about the diversity of Somerville's gardeners or how access to land, desired produce, and participation in the gardening community varies based on these ethnic demographics. Information about where immigrants might have gardens, how far away they typically live from community garden sites, what they might be growing, and if they feel supported by the city of Somerville or other Somerville gardeners is missing. These particular questions are relevant to this report, and the research team has considered them when making recommendations in the absence of hard data.

A study assessing immigrants' access to land hopefully would answer such questions as "Are foreign-born residents equally likely to have garden space at their homes as U.S. citizens?" and "Are foreign-born residents equally likely to have a community garden plot as U.S. citizens?" Access to land is an important component in gauging immigrant participation in urban agriculture, but more broadly, issues of access to culturally appropriate foods are equally important. Further information is needed about the level of access to culturally appropriate foods among foreign-born residents and

20 City of Somerville Office of Strategic Planning and Community Development, "Trends in Somerville: Population Technical Report - April 2009," http://www.somervillema.gov/cos_content/documents/Population%20Trends%20Report%205-19_Final1.pdf (accessed March 23, 2010).

21 Ibid. (accessed March 23, 2010).

22 Ibid. (accessed March 23, 2010).

Other non-English languages spoken: Thai, Armenian, Tagalog, Hindi, Portuguese, Italian, Haitian-Creole, Chinese, Urdu, Arabic, Hebrew, Polish, Cambodian, Serbo-Croatian, Hungarian, Japanese, French, Spanish, Farsi, Vietnamese, Russian, Yiddish, Korean, German (Source: http://www.somervillema.gov/cos_content/documents/PopulationTrendsSlidesMeeting6-23-2009.pdf (from the US Census))

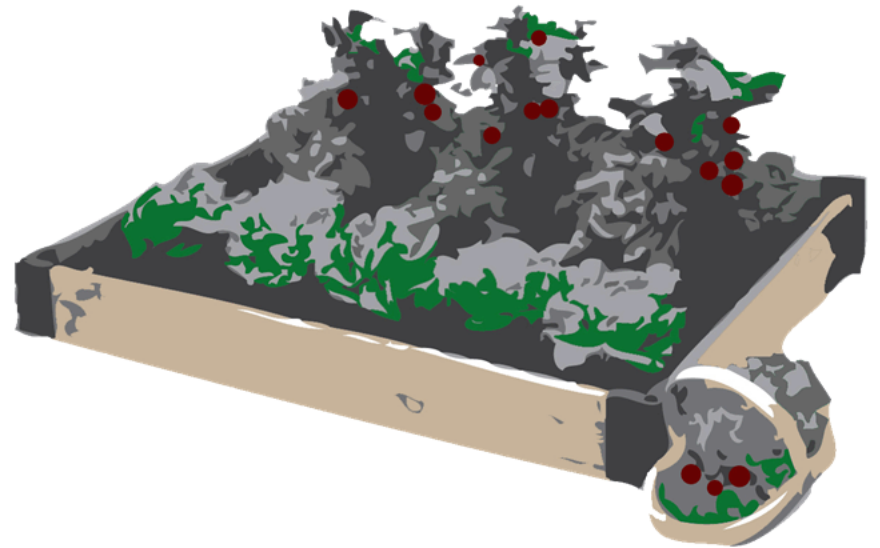
23 City of Somerville Office of Strategic Planning and Community Development, "Trends in Somerville: Population Trends: June 23rd 2009," http://www.somervillema.gov/cos_content/documents/PopulationTrendsSlidesMeeting6-23-2009.pdf (accessed March 23, 2010).

the degree to which they are being targeted as a consumer audience. It is not known if Somerville stores regularly stock culturally-specific produce, or if local farmers expressly grow and sell produce that is desirable to Somerville's immigrant population. Somerville's farmers' markets at Union Square and Davis Square could address this need and may be interested in gathering data to determine missed market opportunities for specialty crops desired by certain residents. *(See the Appendix: World Crops for more information about specific ethnic crops that grow well in the Northeast.)*

RECOMMENDED GOALS

The following sections contain a series of observations and recommendations about the state of local food and urban agriculture within Somerville city limits. Recommendations are broken up into sections surrounding the physical environment, the social environment, local food distribution models, and the establishment of a community kitchen. When appropriate, the rules and regulations surrounding each recommendation are also elucidated. Specific action steps and policy advocacy positions are suggested for Groundwork Somerville at the end of each recommendation so that each can become a reality.

SOIL & SPACE



SOIL & SPACE

Addressing the Physical Environment

Somerville is a densely populated city with few available sites for urban agriculture, and what little space is available may be contaminated by the legacy of industrial uses. Nevertheless there are some spaces within the city that are suitable for food production. With a few policy changes and a little bit of creativity, many more productive spaces can be incorporated into the urban fabric. Without bringing new land into production, more food can still be grown in Somerville by increasing the soil fertility of existing garden spaces.

GOAL

Make vacant lots available for cultivation.

Somerville's high density is a barrier to agricultural cultivation on a large scale; however, there are a few sizable open spaces within the city limits. These are primarily in locations that were previously occupied by industrial operations, but are also on former residential and commercial sites. Unlike Somerville, some cities contain large numbers of vacant lots, which often represent economic decline and a decreasing population. These cities have thus actively engaged in programs to find productive uses for underutilized land. The city of Cleveland recently reimagined their vacant parcels in a variety of novel ways, including agricultural, and determined that it would cost \$3.45 per square foot to convert land to market gardens and \$3.00 per square foot to convert it to

community gardens.¹ After the study was released, nearly \$284,000 was raised to support urban agriculture projects and has been disseminated to various agricultural projects throughout the city².

Similar to Cleveland, the state of Michigan owns a large amount of (mostly urban) land due to owners' failure to pay property taxes. The state has instituted an innovative land-banking program in which vacant parcels can be leased for \$25 a year if used for agricultural purposes. This allows residents to turn lots into productive urban farms without having to pay taxes on the land. In the city of Boston, the Sustainable Neighborhoods Group and the Trust for Public Land are currently working on a resource guide for the transformation of vacant lots. This guide walks organizations through the process of adopting lots and provides suggestions for new uses, including converting them to community gardens.

Soil contamination can be a problem on former industrial sites, and cities have opted to deal with this problem in a variety of ways, including phytoremediation (growing specific plants to remove toxins from the soil) and building raised beds.

1 Neighborhood Progress, Inc. *Re-Imagining Cleveland: Vacant Land Re-use Pattern Book*, (Cleveland: Kent State University, 2009), 17.

2 Marc Lefkowitz, "Re-imagining a More Sustainable Cleveland," *EcoWatch Journal*, February/March 2010, <http://www.ecowatch.org/pubs/mar10/reimagine.htm> (accessed 3/31/10).

RECOMMENDATIONS

Make information on vacant parcels public.

Groundwork Somerville can use the Sustainable Neighborhoods Group's guide as a reference and as a resource for converting vacant parcels into gardens. The city of Somerville should function as a clearinghouse of information about vacant parcels and can work with community residents to identify vacant land in their neighborhoods.

GOAL

Revise parking ordinances to increase cultivable areas.

Parking is often a sacrosanct amenity for local business owners and residents; they see it as a necessary element to a successful neighborhood and commercial district. Many communities struggle with the perception of a lack of convenient parking when the actual circumstances may indicate an overabundance of parking. In some cases, parking spaces can be more fully utilized by converting them to other public uses, including parks and gardens. The city of San Francisco recently completed an inventory of all of the parking spots within city limits – the first of its kind in the nation. The inventory showed that there are underutilized parking spots in certain areas of the city, and that some of them could be removed. A trial program is converting some of these to extended sidewalks and café seating areas. San Francisco is also using the inventory to revisit the requirement that each new residence include one unit of parking.

The city of Somerville currently requires that most buildings provide a certain number of parking spots, with the number dependent on the type of building. As more and more residents choose to opt out of car ownership, these parking requirements may exceed demand.

RECOMMENDATIONS

Revise parking regulations.

The city of Somerville should revisit parking regulations to allow existing buildings to provide fewer off-street parking spaces. Driveways cannot be ripped out entirely because the zoning code requires them to exist, but they can be populated with planters, raised bed gardens, or by adding layers of topsoil and compost directly on top of concrete. Groundwork Somerville can encourage residents to reuse underutilized driveways as extra planting space.

GOAL

Better utilize city-owned open space for agriculture.

Several cities have undertaken urban land inventories to determine where suitable agricultural land exists within the city limits. Portland State University conducted the Diggable City Project in 2005. This project found land owned by utility companies and city agencies by looking at utility rights of way, land surrounding transfer stations and other forms of open space. These land parcels were then assessed for the suitability of agriculture. Researchers found 289 sites

that could support community gardens or small-scale farms.³ Similarly, a study by the University of California at Berkeley looked at city owned land in Oakland and assessed each site's potential for food production. Using aerial photos, Geographic Information Systems (GIS), and site visits, the study found 1,200 acres of undeveloped open space, and determined that 5 to 10 percent of the city's food needs could be produced on these lands.⁴

Somerville has a few large swaths of open land along the Mystic River and smaller parcels scattered throughout the city. These locations, and perhaps a few more, would turn up in an urban land inventory.



Alewife Brook community path
Source: Friends of the Path, Alewife Chapter

However, there may not be a large amount of underutilized land in the area. In Somerville it may be appropriate to combine the urban land inventory with a rooftop inventory. The rooftop inventory would seek out large, flat roofs that could host a rooftop garden.

RECOMMENDATIONS

Produce an urban land inventory.

A land inventory would be a useful first step to increasing the amount of land available for cultivation. Groundwork Somerville could work with students from Tufts University to produce an inventory as part of course work or a summer internship. While the city of Somerville completed a public tree inventory in the summer of 2009, an inventory of Somerville land has not yet been done.

Make parks and planting strips more productive.

In addition to converting open space to vegetable gardens, it is also possible to more productively use existing parks. A number of cities are beginning to use edible landscaping in their parks. The city of Denver recently partnered with Grow Local Colorado to construct a series of vegetable gardens in public parks that demonstrate the beauty of landscaping that can be eaten.⁵ Davenport, Iowa converted a municipally owned parking lot to vegetable gardens that are available to harvest for free to all passersby.⁶ Other cities, like Seattle, have allowed vegetable plantings on parking strips and medians.⁷

3 K. Balmer, A. Rhoads, and P. Rosenbloom, "The diggable city: exploring the potential for urban agriculture," (Portland, OR: Portland State University), 2005: 3.

4 J. McKlintock and J. Cooper, "Cultivating the Commons: An Assessment of the Potential for Urban Agriculture on Oakland's Public Land," (PhD diss., University of California, Berkeley, 2009): 1.

5 Grow Local Colorado, "Current Projects," <http://www.growlocalcolorado.org/node/624> (accessed 3/31/10).

6 Alma Gaul, "Davenport Man: Good Time to Plant Food in Public Places," *Quad City Times*, September 9, 2009, http://qctimes.com/news/local/article_cc24fd2c-9cf4-11de-9abb-001cc4c002e0.html (accessed 5/1/10).

7 City of Seattle, "Street Use Permits," http://www.seattle.gov/transportation/stuse_garden.htm (accessed 3/1/10).

GOAL

Plant fruit trees on public land.

Some cities have planted fruit-bearing trees on city property. Seville, Spain is well known for its variety of Seville oranges

– a bitter orange excellent for marmalades – and the city of Orange, California planted Valencia oranges on the town green in a nod to its agricultural history and name. Earthworks, a non-profit organization in Boston, plants urban orchards



Seville oranges

Source: <http://desperatelyseekingsuddenlysusan.wordpress.com/2008/02/>

in publicly accessible places. Somerville could follow suit by planting fruit-bearing trees along its streets or within public parks. Somerville residents can keep track of their fruit trees by adding them to online mapping systems, such as City Fruit and Neighborhood Fruit, or the city of Somerville could update their own TreeKeeper website to be more user friendly and allow searches based on fruit variety. There has already been some discussion among Somerville residents and politicians on the topic of public fruit trees. Because of the sensitive nature of this subject, the team does not expressly recommend this step be taken immediately, but hopes that it

will be considered as an option in the future.

Somerville tree planting is governed by Massachusetts General Laws, Chapter 87: Shade Trees.⁸ Under this law, the tree warden is in charge of all public trees that are not planted in either the public highway or in parks. Trees in public highways are under the charge of the department of highways, while the parks commissioners control plantings within parks. Chapter 87 does not provide guidance as to the types of trees which can be considered “shade trees”; there is nothing to say whether fruit trees are included or excluded from that categorization. Indeed, currently a number of ornamental (non-fruiting) cherry, pear, and plum trees are planted throughout Somerville.⁹ However, this is an important definition to clarify, as section 7 of M.G.L. Chapter 87 makes it clear that “[c]ities and towns may appropriate money for the purpose of acquiring and planting shade trees...”¹⁰ If the city of Somerville takes the suggestion in the 2009 “Street and Public/Park Space Tree Inventory Management Plan,” and creates a tree ordinance specifically for the city,¹¹ it would be beneficial for the ordinance explicitly to include fruit trees within the species allowed for public planting; public funds could then be appropriated for the planting of fruit

8 Massachusetts General Laws, Chapter 87, Section 7, “Planting of Shade Trees.”

9 City of Somerville, “Urban Forest Initiative,” <http://www.somervillema.gov/section.cfm?org=PARKS%20&%20OPEN%20SPACE&page=1503> (accessed 3/31/10).

10 M.G.L. Chapter 87, Section 7: Planting of Shade Trees.

11 Davey Resource Group, “Street and Public/Park Space Tree Inventory Management Plan,” Kent, Ohio (2009): 52.

trees. Guidelines should be included with the ordinance as to methods for prioritizing location and for training city officials in proper care, as well as clear statements of how and by whom the fruit produced may be used. Since Massachusetts General Law provides no explicit definition of “shade tree”, the City of Somerville may act in this way without exceeding the bounds of Massachusetts General Law.

RECOMMENDATIONS

Plant fruit trees in semi-public spaces.

Planting fruit trees in the public realm can be complicated by a lack of designated caretakers. Thus it is recommended that the city of Somerville begin planting fruit trees in semi-public locations that already have designated landscape services, such as schools, housing authority sites, public offices.

Groundwork Somerville can suggest good varieties of trees to plant.

GOAL

Increase the number of community gardens in Somerville.

For many Somerville residents, community gardens are the most visible form of urban agriculture. These gardens provide growing space for many residents who lack growing space at home. Even though Somerville owns and manages all nine community gardens, they have no explicit protection. A change in city priorities could potentially remove community gardens in favor of an alternate use. This occurred in the late 1990s on the Lower East Side of New York City when the city attempted to remove gardeners from land that had been

cultivated (illegally) for over 20 years in order to build condos. The community gardeners raised \$1 million to purchase the land.¹² It is important to ensure that existing gardens are not threatened by development and that community gardens be permanently protected as gardens. New York City enlists the help of land trusts to protect gardens, while Cleveland has included language in its zoning code that establishes community gardens as the “highest and best use” of the land and thus cannot be redeveloped.

Not every neighborhood has equal access to community gardens. Proximity to community gardens, however, does not always equate to access, and residents may rent a community garden plot while still living far from the site. Proximity does also not necessarily equate to access because residents who live nearby a community garden may not be able to rent a plot due to long wait lists or unfamiliarity with the enrollment process. Current waiting lists vary by garden; some plots in specific gardens may be free within a season, while most gardens have a two year wait list at minimum. Figure 1 (next page) shows that both the northeast section and northernmost tip of Somerville are currently underserved by gardens. Northeast Somerville has a higher percentage of foreign born residents and a lower median income than the rest of Somerville and should be prioritized for new garden development. Every neighborhood should have equal access to at least one of the city’s community gardens.

¹² Laura J. Lawson, *City Bountiful: a Century of Community Gardening in America*. (Berkeley: University of California Press, 2005): 258.

Population Density & Distance from Community Gardens

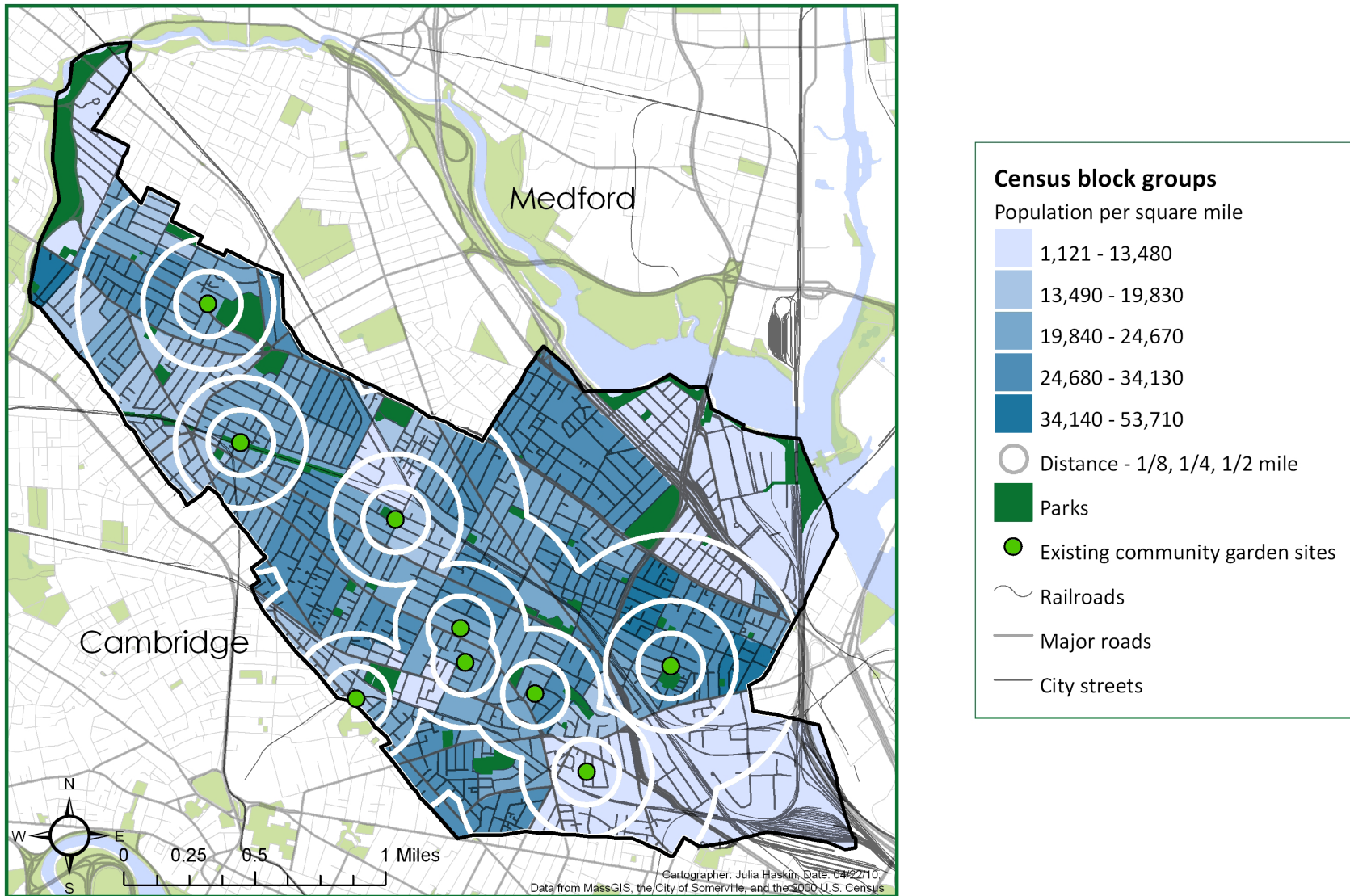


Figure 1: Somerville Population Density and Distance from Community Gardens

The Commonwealth of Massachusetts' Environmental Justice Policy states that¹³

“Environmental justice (EJ) is based on the principle that all people have a right to be protected from environmental pollution, and to live in and enjoy a clean and healthful environment. Environmental justice is the equal protection and meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies and the equitable distribution of environmental benefits.”

Madison, Wisconsin, for instance, requires that one community garden be created for every 2,000 residents.¹⁴ A similar mandate could be adopted by the city of Somerville. Unfortunately, a 2000 UEP Field Project report concluded that the city has only four suitable locations for new gardens.¹⁵ Two of these potential gardens have been created since 2000. An urban land inventory would show if the situation has changed.

13 Executive Office of Energy and Environmental Affairs for the Commonwealth of Massachusetts, “Environmental Justice Policy,” http://www.mass.gov/?pageID=eoeeterminal&L=2&L0=Home&L1=Grants+%26+Technical+Assistance&sid=Eoeea&b=terminalcontent&f=eea_sgse_env_equity&csid=Eoeea (accessed 3/26/10).

14 City of Madison, “City of Madison Comprehensive Plan,” (2006): 6-18.

15 T. Evans, J. Filapek and D. Ralph, “The State of Community Gardens in Somerville: An Examination the Past and a Glimpse into the Future,” (Field Project report, Tufts University, 2000).

RECOMMENDATIONS

Provide equal access to garden space for all residents.

In light of Somerville Mayor Joseph Curtatone’s commitment to the Shape Up Somerville program and other community health initiatives, it is crucial that all residents of Somerville are provided with equal access to healthy amenities like community gardens. Groundwork Somerville must be an advocate for garden access. If no further space exists for community gardens in under-served areas, then alternative garden spaces, including rooftops and underutilized parking lots, should be investigated.

Protect existing gardens from development.

The city of Somerville should enact legislation to permanently protect community gardens. Securing the gardens within a land trust or changing the language of the zoning code to include community gardens as protected land are two ways to ensure that community gardens will perform their social, cultural, and public health functions in perpetuity. Activists in Providence have successfully placed many gardens into a land trust and had protecting language entered into the Comprehensive Plan and zoning ordinances. (*See Appendix: Case Studies for a description of Providence’s efforts*). The City of Boston has established a separate community garden subdistrict of their open space zoning code. This subdistrict “shall consist of land appropriate for and limited to the cultivation of herbs, fruits, flowers, or vegetables” and includes all vacant public land.¹⁶ Groundwork Somerville is in an ideal

16 City of Boston Municipal Code, Article 33, Section 8.

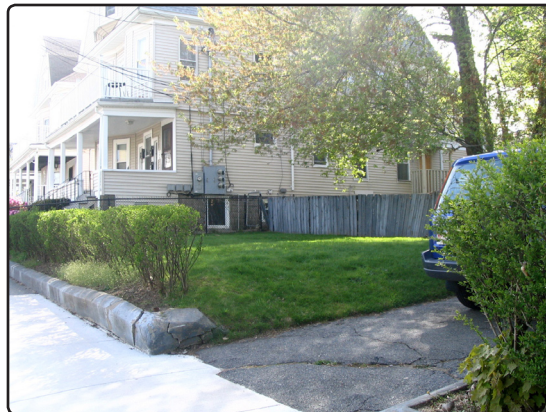
position to advocate for the adoption of similar language in the zoning code.

Encourage Somerville residents to sign up for yard-sharing programs.

Somerville gardeners are particularly challenged by high density land use, leaving most residents with little extra space for growing food. Beantown Beanshare is a new Boston-focused website that, once operational, will connect prospective gardeners with landowners who have unused land, and helps them develop a use agreement for the land. This way, Somerville landowners with yard space that they are not able to utilize could lend the space to gardeners who didn't have "gardenable" space at their own homes. Groundwork Somerville could also coordinate a formal or informal system of this type.

Groundwork's Green Team teens could conduct outreach to residents (at farmers markets or door to door) to encourage them to sign their yard up on Beantown Beanshare or with Groundwork Somerville.

Other websites promoting yard sharing include Shared Earth and Sharing Backyards, but neither had any Boston-area land posted as of April 2010.



Under-utilized side lot in Somerville.
Source: Molly McCullagh

Work with GWS teens or Somerville Climate Action to help install gardens at landowners' yards.

Groundwork Somerville could support more gardens in Somerville by assisting interested gardeners in installing raised beds or preparing in-ground beds in homeowners' yards. The Food Project, a Massachusetts-based farming organization that works to empower youth, operates a "Build A Garden" program where teen gardeners build raised bed gardens and provide technical assistance and support throughout the growing season for residents of Boston and Lynn.

GOAL

Make urban agriculture a priority in the Comprehensive Plan.

Some cities incorporate language about food and agriculture in their comprehensive plans. The Seattle Comprehensive Plan mandates that one community garden be established for every 2,500 residents. The Comprehensive Plan for the District of Columbia makes significant references to the role of urban agriculture in the promotion of healthy lifestyles. An entire chapter of the Madison Comprehensive Plan is devoted to Natural and Agricultural Resources and outlines goals and priorities for the growth and maintenance of the city's agricultural resources.¹⁷

¹⁷ City of Madison, "City of Madison Comprehensive Plan," (2006): 6-16.

RECOMMENDATIONS

Incorporate urban agriculture into the Comprehensive Plan.

The city of Somerville is currently working on a new Comprehensive Plan. This is the perfect opportunity to incorporate food and agriculture into a vision of what Somerville will look like in the future. One of the vision statements guiding the planning process stated that the City should:

Build a sustainable future through strong environmental leadership, balanced transportation modes, engaging recreational and community spaces, exceptional schools and educational opportunities, improved community health, varied and affordable housing options, and effective stewardship of our natural resources.

Establishing more places for urban agriculture within the city would accomplish many of these goals, but is not included as a vision for the city. Urban agriculture should be recognized as a crucial element to the social and environmental sustainability of the city. The Comprehensive Plan can include language requiring the establishment of a community garden whenever a park or affordable housing development is retrofitted or redesigned. It could also encourage agriculture on public property and public easements like the community bike path. A revision to the section establishing the planting of trees on private property can be amended to include fruit trees as acceptable tree types. Groundwork Somerville can use the recommendations made in this report as a guide to including

food and agricultural issues in the Comprehensive Plan visioning process. When the Plan is completed in October and open for public comment, Groundwork Somerville should encourage gardeners to write in support of urban agricultural issues.

GOAL

Amend zoning laws to encourage urban agriculture.

Zoning for urban agriculture is an often-neglected yet important element of a city plan. Community gardens fall under the “open space” district of the zoning code, and are permitted wherever the Board of Appeals allows them, but this is often the only consideration of agriculture in a city’s planning process. Backyard chickens, ducks and bees have become the topic of intense scrutiny in recent years as more residents and backyard growers seek to incorporate them into their urban agriculture practices. Although not prohibited in the residential neighborhoods of Somerville, backyard livestock are not expressly permitted either. Cambridge, Massachusetts has struggled with this problem, most recently when a neighbor’s complaint about backyard chickens led to several hearings at the Zoning Appeals Board for the forced removal of the chickens. Other cities are more permissive of backyard chickens and have enacted legislation allowing birds and bees. The city of Northampton, Massachusetts, for example, allows a maximum of three chickens per household, while Oakland, California allows chickens as long as they are enclosed and are at least 20 feet away from dwellings.

RECOMMENDATIONS

Explicitly allow backyard livestock and bees.

Currently, there are no restrictions in Somerville on beehives, and a permit is not required to keep bees within the state.¹⁸ Additionally, backyard livestock are not expressly prohibited in Somerville, as long as they conform to what livestock was historically relevant for the area. However, the city of Somerville should adopt zoning codes that specifically allow backyard chickens, ducks and bees. Making the case at the next Zoning Appeals Board meeting without the impetus of an incident like the one in Cambridge is key. Some cities like Northampton and Seattle allow up to three chickens in areas zoned for residential uses, thus establishing livestock



Urban poultry.

Source: www.newresilient.com

as an acceptable use. Chicago allows residents to keep as many chickens as they like as long as they are for eggs and not slaughter. New York City recently adjusted their zoning code to allow beekeeping.

These changes are sometimes met with opposition from community members because they are not comfortable with having chickens or bees in neighbor's yards. Groundwork Somerville should

recruit supporters to attend a Somerville Municipal Planning Board meeting to advocate for zoning changes. Preemptive efforts to address these zoning issues will ensure less conflict in the future as the interest in urban poultry is likely to continue.

GOAL

Encourage creative gardening in and out of the ground.

There are a number of techniques that residents of Somerville can implement that do not require access to a yard. (See *the Appendix: Growing Techniques for intensive gardening practices that can be implemented in Somerville.*)

GOAL

Address soil fertility and contamination.

Northeast urban soils have been subject to hundreds of years of human use, leaving many full of toxic substances, such as lead. The University of Massachusetts at Amherst provides standard soil tests for \$9. The test includes a measure of pH, nutrients and heavy metals. Preliminary survey results have shown that many gardeners are aware that lead can be a problem, but have not tested their soil. Some gardeners are not aware of the dangers of lead-contaminated soil and continue to garden in soil that may produce toxic food.

¹⁸ Massachusetts Department of Agricultural Resources, "Bee FAQ," <http://www.mass.gov/agr/farmproducts/apiary/faq.htm> (accessed 4/20/10).

RECOMMENDATIONS

Encourage gardeners to perform soil tests.

Groundwork Somerville should engage in a campaign to make residents more aware of the dangers of soil contamination. This could be as simple as providing soil test brochures at all Groundwork-sponsored events or mailing a brochure to residents. Although UMass Amherst's soil test is relatively inexpensive, the fee could be prohibitive for some gardeners, especially those that are growing vegetables to make ends meet. Measures should be taken by the City of Somerville and Groundwork Somerville to ease access to soil testing including subsidized soil tests or reduced fees for low-income residents.

GOAL

Increase the availability of compost to gardeners.

Compost is an effective way to use organic waste as well as an excellent way to improve soil fertility and remedy toxic soils. The organic matter in compost breaks down more slowly than chemical fertilizers, allowing the nutrients stored within to be released more gradually, reducing the risk of water contamination due to runoff of nutrients from garden beds.



Wonderful worms!

Source: www.howstuffworks.com

Composting outdoors occupies a lot of space and time – two things that are at a premium for urban gardeners. Vermicomposting – composting with worms – can be much faster and requires less space than bulky compost bins. An indoor worm bin is small enough to store in a cabinet. Worms eat fruit and vegetable scraps quickly, converting them to nutrient-rich compost that can be added to soil.

The City of Somerville currently provides outdoor compost bins to Somerville residents for a modest fee to encourage compost production on an individual scale, but other cities have enacted more far-reaching composting measures. As part of its Zero Waste program, the city of San Francisco has a mandatory composting program for all restaurants and city residents. Residents are given a green bin for food scraps, plant trimmings and paper, which is then picked up by the city and brought to a composting facility outside the city. Finished compost is sold to local farms to spread on their fields. The New York City Compost Project is a part of the New York Department of Sanitation, and is dedicated to promoting residential composting. They provide workshops, composting information, and ready compost free of charge to residents. The city of Cambridge also provides free compost for residents, and allows residents to drop off food scraps at the city's recycling center. Over 60 businesses currently take advantage of Cambridge's new program to pick up compostable materials.

RECOMMENDATIONS

The city of Somerville should operate a city-wide composting program.

Right now, Groundwork Somerville is the only composting organization in the city. Their SoilCycle program picks up residential food waste from subscribers as a service, a function that other cities have taken it upon themselves to perform. This innovative program is admirable in its attempt to reduce the amount of food waste going to landfills, but it is not feasible to operate this program on a city-wide scale. Groundwork Somerville should advocate for a city-wide composting program. It may be unrealistic to demand that the municipality provide curbside pickup of food waste, but allowing residents to drop off food waste – like Cambridge’s program does – is a good first step.

Groundwork Somerville should increase its composting efforts.

As many Somerville residents do not have enough space for a large compost bin in their backyards, Groundwork Somerville can encourage more residents to compost at home with worms. Groundwork Somerville can provide vermicomposting workshops to teach residents about the benefits of composting with worms and even be a worm provider. Currently, composting worms can only be ordered online or exchanged from one gardener to the next. Groundwork Somerville can increase the number of vermicompost bins they maintain in the elementary and middle schools and then harvest the worms for sale or donation to area gardeners. Worms can sell for as much as \$25 a pound online, which could help fund other Groundwork Somerville programs.

COMMUNITY ENGAGEMENT



COMMUNITY ENGAGEMENT

Addressing the Social Environment

Expanding the scope of an area's urban agriculture and gardening environment cannot be achieved through policy and regulations alone. For every thriving urban agriculture neighborhood and town, an equally thriving network of gardeners, urban farmers, and urban agriculture non-profits or city agencies are working in concert to connect the actions of urban agriculture to the community. It is through these networks that some of the most inventive and influential urban agriculture initiatives are developed, often growing directly out of gardener and community needs. In this way, urban agriculture grows with a community and becomes a core identity, rather than simply a feature.

GOAL

Establish a learning farm.

Communities that have successfully scaled up their urban agriculture and local gardening efforts have often relied on the resources of urban and peri-urban farms. These farms tend to be small (1-10 acres), operated by owners with an expressed interest in using agriculture as a civic engagement, community development, and political awareness tool, and are generally maintained by a number of rotating interns and volunteer groups in addition to trained, full-time staff. Many learning farms have successfully reached out to low-income and diverse communities, often promoting programs specifically targeted at inner-city or at-risk youth. The Food Project, an urban farm that operates – among other locations – on 2.5

acres in Roxbury, MA, is notable for its program, which has equipped youth with tools to apply farm practices to at-home methods and influenced youths' eating and lifestyle habits.¹ Farms like Zenger Farm, outside Portland, OR, offer adult workshops on such diverse topics as worm composting, backyard bee-keeping, and basic butchery.²



The Food Project, Roxbury, MA.
Source: Johnny's Selected Seeds

In addition to the merits of these volunteer and workshop opportunities, learning farms perform a number of functions including reconnecting urban dwellers with the natural environment, engaging urban agriculture newcomers in a safe environment, supporting farmer training programs, launching food businesses, providing growing and storage space for smaller farmers or inner-city growers, serving as models of sustainability, and feeding money back into the local economy.

¹ The Food Project, <http://thefoodproject.org>. (accessed March 20, 2010).

² Zenger Farm, www.zengerfarm.org, (accessed March 20, 2010).

RECOMMENDATIONS

Anchor existent learning farms in wider gardening community.

Groundwork Somerville has successfully utilized the resources of the Growing Center in Union Square by staging agriculture-related public events to which are invited the wider community, beyond those already familiar with the center. Groundwork Somerville is in a position to further advertise the Growing Center to its area partners like the Somerville Garden Club and Somerville Climate Action as a place to hold meetings, workshops, lectures, and events.

Additionally, Waltham Fields - an area farm accessible by public transportation and within close proximity to Somerville - is a valuable asset that many gardening groups and resident gardeners would find helpful. Groundwork Somerville can promote Waltham Fields through day-trips and events that showcase the farms numerous resources.

GOAL

Formalize a gardeners' network.

A crucial component to the process of scaling-up urban agriculture production is the concurrent strengthening and expansion of gardeners' networks. Communities that have successfully transitioned to coordinated and professional urban agriculture hubs have done so, in part, from the concerted efforts of gardeners' networks. Whether they are called "cooperatives", "networks", "leagues", "associations", or simply "groups", gardeners' networks perform important

functions beyond peer-to-peer support, including unification of diverse gardener groups, outreach to both the gardener and wider community, and providing education about healthy food and cooking tips. City Slickers Farms, a collection of urban gardeners in Oakland, CA operates a "Backyard Garden Program" in which new backyard gardeners are provided such services as soil testing, one-on-one mentoring, and free pick up of produce to be brought to the organization's farmers' market.³ Other gardeners' networks, like Garden Matters of Minneapolis, MN focus on training and development of gardener skills, drawing committed and strong leaders, fundraising, and suggesting policies that impact city plans. Garden Matters has written a number of factsheets and reports, for both gardeners and community leaders, the most notable being the "Twin Cities Community Garden Sustainability Plan" that included recommendations for re-zoning to encourage urban agriculture. *(See the Appendix: Case Studies for more information on Gardening Matters.)*

RECOMMENDATIONS

Identify leaders and prominent organizations in the urban agriculture community.

A number of strong leaders and forward groups are evident in Somerville that could be tapped to take the initiative on establishing a gardeners' network. Ideally the groups and candidates would have significant experience in urban agriculture, knowledge and familiarity with Somerville including political leaders and demographics, and some expertise in

³ City Slickers, "Annual Report 2008," Oakland, California (2008).

non-profit management.

Apply for funding to hire dedicated staff.

Successful gardeners' networks have been carried by the efforts of directors and staff whose time can be devoted to developing the network. Though many initiatives can be carried out by dedicated volunteers, paid staff members are often able to focus their attention on group-specific needs and provide consistent support. This can speed up the network-forming stages and keep invested organizations mobilized and energized.

Conduct research on gardener demographics and interests.

Gardeners' networks thrive when the organizations developing them intimately know the gardeners of their community. The New Orleans Food and Farm Network's "Grow New Orleans" group meets four times yearly to ensure members' voiced concerns are addressed and that its mission is on target.⁴ Somerville hosts a variety of gardeners whose needs overlap but don't always align. Better understanding of these divergences will help develop goals that gardeners' networks can utilize to bridge disconnected groups. Detailed information about gardener demographics and interests is necessary to inform how gardeners' networks advertise themselves, develop agendas, formalize mission statements, and establish partnerships. Gardeners in Somerville have

already been candid with their needs; a formal survey, focus groups, or in-depth interviews would prove invaluable for both Groundwork Somerville and the City.

GOAL

Establish a shared-use community kitchen in Somerville.

A shared-use community kitchen is a government-certified kitchen and storage space for processing, holding and packing farm produce. An ideal community kitchen in Somerville would also include space for community activities that would benefit from a kitchen facility, such as nutrition classes or special events. A community kitchen could support current Groundwork Somerville programs, such as their Green Team and Maple Syrup Boil Down, and also provide a staging ground for a local distribution program in Somerville (see *the Local Distribution chapter for more information*).



Community kitchen activities.
Source: Rainier Valley Post, Aug. 23, 2008

Additionally, a certified kitchen would provide space for community members to process their produce into products such as jams, pickles, or salsa, for sale. Certified kitchens can be expensive to build, maintain, and manage. Typical investments have ranged from \$20,000

⁴ New Orleans Food and Farm Network, "Grow New Orleans," <http://www.noffn.org/index.php?topic=grown> (accessed March 25, 2010).

to \$250,000, but depend greatly on the type of equipment needed, the potential uses, and the existing building space. Some certified kitchens function as “kitchen incubators” to support new food entrepreneurs and charge their users fees to access the space and equipment while others share staff with local organizations and support less-business oriented programming. *(A resource guide for establishing a community kitchen can be found in the Appendix: Community Kitchen.)*

RECOMMENDATIONS

Temporarily use an existing kitchen.

Because of the amount of planning and fundraising that will be devoted to starting a community kitchen, this is a long-term goal. In the meantime, community members or organizations in need of occasional use of certified kitchen space should reach out to current kitchen users to determine if there are any existing spaces that can be shared. Many churches have kitchens that are underutilized during working hours, while school facilities have kitchens that are underutilized after school hours and on weekends. Conducting a survey of community groups and emergency food providers may reveal existing spaces that can be utilized by the gardening community.

Survey the community more deeply to determine the need.

For this report, we conducted informal interviews with some area businesses and emergency food providers, who gave us feedback on a potential community kitchen. Before moving

ahead with planning for a community kitchen, a more detailed feasibility study should be conducted to investigate potential use. Although survey data alone does not necessarily guarantee potential users or income, it is an important first step.

A Somerville Community Kitchen Task Force was established in 1999 to consider the feasibility of developing a community kitchen in Somerville, but did not get beyond an initial brainstorming phase. Their disbanding does not mean that a community kitchen wouldn't be desirable in Somerville, but indicates a need for a strong champion to act as a developer and chief manager.⁵ This Task Force included emergency food providers and nutrition education groups such as Project Frontline, Share Our Strength, and others. The community kitchen was pursued primarily as an educational venue and a place to cook meals for seniors. Two major issues that may have contributed to the group's eventual dissolution were determining an appropriate site and securing funding.

Kitchen users (restaurant owners, caterers, meal program operators) who were interviewed for this project expressed no awareness of a strong need for more kitchen space among their peers, but said that it seemed like a great idea and could become an important community asset. Three of the users already have their own kitchen spaces, so don't represent actual potential users, but we felt that they had perspective

⁵ Hugh Joseph, conversation with the author, February 22, 2010.

on how a community kitchen may fit within Somerville. One shared space in the past before opening their own kitchen for their catering business and two of the food pantry operators also have their own certified kitchen space. However, their kitchens are well occupied during working hours by their own programs. One food pantry coordinator said that limited funding would prevent them from opening and operating their own kitchen, but that they would potentially benefit from having access to a shared kitchen space. J.D. Walker, director of an existing kitchen incubator, CropCircle Kitchen in Jamaica Plain, was more certain that demand exists and would consider partnering with another organization to open a kitchen in Somerville that would act strictly as a business incubator facility for serious food entrepreneurs and not necessarily be open for other community uses.⁶

Find a champion.

A successful community kitchen requires a champion, someone who has dedicated time (generally compensated) to running the kitchen and supporting the food entrepreneurs. Rather than merely being a landlord, managers must play an active role in helping their tenants succeed, either directly or through community linkages. Managers can provide training, access to appropriate capital, and technical assistance in recipe development. Groundwork Somerville is one organization that could manage the kitchen, but there may be other non-profit groups that focus on health, nutrition, or

community development who could also be involved.

Promote to and recruit potential users.

To thrive as a business, community kitchens require the support of the communities they benefit. Shared-use community kitchens can be successful as components of community centers but generally do not succeed as stand-alone projects. Their economic impact is generally limited, so their true value rests in their implementation in a broader community development scheme.⁷

Collect ideas about how the space would be used.

Groundwork Somerville should think broadly about how other community groups or members might utilize a kitchen space for programs beyond a produce processing facility. It is important to include all potential users in the visioning process to ensure that the resulting space is properly designed for a variety of uses. A community kitchen could also serve other users in the community by offering a place for those without kitchens to prepare meals, a space other organizations to host nutrition classes, or a place for Somerville gardeners to gather to can their produce during the growing season.

Groundwork Somerville could utilize the space for many of their programs beyond a potential urban produce processing facility. Groundwork Somerville's Green Team already

⁶ JD Walker, phone interview with the author, March 8, 2010.

⁷ Smithsonian Mills and Cameron Wold, "Developing Shared Use Food and Agricultural Facilities in North Carolina," (2007) <http://www.smithsonmills.com/ncshareduse.pdf>

includes some cooking in their programming, but they are incredibly limited by a lack of adequate facilities. A proper cooking facility would increase the amount of fresh food the Green Team could harvest and eat together.

If Groundwork Somerville pursues a campaign to increase the capacity of backyard growers in Somerville, the growers may need a centralized space to wash, pack and store their produce between harvest and market times. A portion of a community kitchen space could be useful for produce meant for sale.

[Find a location \(existing kitchen renovation or new construction\).](#)

Most kitchen incubators and community kitchens have underestimated the amount of storage space their tenants will require – an important miscalculation that limits potential growth and income. Federal regulations require separate storage and preparation facilities. Anticipating the type of storage needs (dry, cooler, freezer) that potential tenants will have ensures adequate space. A certified kitchen could be located within a variety of locations, such as restaurants, community centers, universities, hotels, even fire stations. Some locales may present more barriers than others; for example, universities often lease out their kitchen space to contracted vendors and may not be able to open their kitchen to the community for liability reasons.

Some Somerville organizations already have certified kitchens they use to prepare meals for youth programs or store food for food distributions which could serve as potential locations for a community kitchen. For example, the Elizabeth Peabody House currently does not allow other community members use of their kitchen; however, they are open to considering how the space may accommodate more users.⁸ Additionally, programs like Hearty Meals for All, which coordinates a community meal every second Friday of the month at the Somerville Community Baptist Church, points to the potential for a community kitchen to be housed in churches already being utilized by outside food programs.

[Train users in food safety and food processing laws.](#)

To ensure the safety of all users and the security of the facility, all users should undergo basic food and facility safety training provided by the facility manager. More inexperienced or first-time community users may require the presence of a manager during use until well versed in safety procedures and are comfortable with kitchen equipment. Equally important are following processing laws that regulate processors nationally and locally. For instance, these laws may necessitate that a certified food protection manager be on-site at all times, depending on the number of hours for which the kitchen is in use and the purpose for which the products created there will be used. *(For more information on food processing laws and permitting, see the Appendix: Food Processing Laws.)*

⁸ Paul Kuhne of the Elizabeth Peabody House Food Pantry, e-mail to the author, March 26, 2010.

LOCAL DISTRIBUTION



LOCAL DISTRIBUTION

Addressing the Food Environment

To become a leader in urban gardening, Somerville must be engaged in all aspects of the food system. We have already suggested ways that Somerville residents can grow more food in the city, advised education and outreach that should be done to support local gardeners. We even recommended increasing the amount of compost produced in Somerville. Here, we will address another key part of the food system – distribution. Residents who don't have the time or space to grow their own food can still be involved in supporting Somerville agriculture by purchasing locally-grown goods.

GOAL

Increase “backyard to market” opportunities.

In a “backyard to market” model, gardeners from multiple sites garden independently but sell their produce collectively. This allows gardeners to fill an entire market table or fill larger orders for retailers who may require high quantities of individual varieties for their restaurants or stores. Although this model can be run collectively through volunteer coordination from the market gardeners themselves, it benefits from coordination from a single distribution manager. A manager's role involves soliciting orders from retailers, helping the gardeners access plants and seeds to ensure consistent and similar products, helping staff a market table and supply market materials like tablecloths or price cards, or even assisting with distribution logistics such as harvesting and delivery of produce. An excellent example of the Backyard

to Market model is “Grown in Detroit,” a market gardeners cooperative in Detroit, Michigan. The collaborative is coordinated by a paid manager, but is aided by the gardeners themselves who make collective suggestions for what to grow and where to sell their produce. (*See the Appendix:Case Studies for more details on Grown in Detroit.*)

RECOMMENDATIONS

Establish standard growing practices.

Any distribution network should require soil tests. A selling collaborative should also determine standard acceptable growing practices for participating gardeners, such as growing without synthetic pesticides or fertilizers, depending on group consensus. Setting standards and educating growers is important as a marketing tool and for ensuring food safety to consumers and retailers.

Develop relationships with key retailers.

Find small-scale restaurants and retailers who are already interested in – and have an understanding of – local food. Backyard Bounty, an urban farm in Portland, Oregon, now sells directly to chefs after the head farmer reached out to a chef while she was at breakfast one morning; she also called chefs at restaurants that already focused on organic foods. Backyard Bounty coordinates with chefs over the winter to determine their produce needs and the head farmer plants accordingly. (*See the Appendix:Case Studies for a description of Backyard Bounty.*)

Somerville has a number of independent and non-traditional grocery stores, markets, corner stores, cafes, and restaurants that not only contribute to Somerville's unique character, but also hold potential as meaningful partners in urban agriculture initiatives. Previous reports, including a 2007 UEP Field Projects report, "Small Business and Local Food: Challenges and Opportunities for Eastern Somerville," have studied retailers' receptivity to local produce buying programs. Results pointed to a lack of interest, particularly from ethnic markets, due to such issues as the perceived cost of non-wholesale food, unreliability and nonuniformity of non-wholesale food, and a lack of knowledge about locally grown foods.

Recognizing that significant language barriers prevented the team from conducting follow-up interviews with the ethnic market owners from the 2007 report, and that a comprehensive survey of all area businesses was prevented by time constraints, the team isolated a few area businesses with a reputation for supporting local agriculture to examine how their incorporation of local food in their business models operated.

Consider partnering with another local food distributor.

It is unlikely that the Somerville-grown food supply will ever be large enough to satisfy the needs of Somerville retailers and consumers, so any future backyard to market schemes may want to partner with another distributor in order to increase distribution of local food to retailers. Our interviews with area retailers suggested that owners and chefs require the support

of a distribution network to source local produce effectively. In order for backyard to market programs to be successful, participating gardeners must function as a professionally coordinated network.

The personal initiative required to source locally from farmers is currently more demanding than what many chefs have time for, often relying on an outside distributor to coordinate with individual growers, present them with product lists, and deliver their orders in a timely manner. This distributor may be a national business, such as Sysco, or a regional business, such as Red Tomato, based in Canton, Massachusetts. Working with a larger food distributor may reduce gardener control over price setting for their products; as such Somerville gardeners may want to sell directly to retailers themselves while also advocating that retailers utilize local distributors for other produce that the gardeners are not providing.

Survey Somerville residents to determine their desired crops.

Somerville's two farmers' markets at Union Square and Davis Square are very popular and successful. According to surveys completed by Union Square Main Streets, the Union Square farmers market received over 15,000 visitors throughout the course of the season. These visitors were slightly better off financially than the average Union Square resident.¹ However, it is likely that the products offered at these two markets do

¹ Mimi Graney, Union Square Main Streets, e-mail to the author, containing charts from surveys, April 30, 2010.

not match Somerville's culturally diverse residents. According to the 2000 US Census, foreign-born residents represented nearly 30% of Somerville's total population. The most frequent countries of origin reported (in order of frequency) were Brazil, Portugal, El Salvador, Haiti, China, Italy, India, Canada, Ireland, Guatemala. Growing crops specifically for these communities may attract a more diverse group of shoppers to the farmers' markets and support the food desires of all of Somerville's residents. Partnering with the Farmers' Markets and local immigrant organizations or community groups would be key to increasing the visibility of available produce at the markets.

A Somerville gardeners' network could work to support gardeners to grow less-common plants by providing seeds, transplants, and growing and handling information. The Welcome Project, an education and advocacy organization for Somerville's immigrant communities, may be a good ally in reaching out to non-English speaking groups. *(See the Appendix: World Crops for a list of ethnic crops that can be cultivated in Massachusetts.)*

Support backyard growers with relevant workshops and resources.

In order to fulfill retailer orders, backyard growers need collectively to have enough of the same products. To ensure consistent product, the gardeners involved in collaborative selling should grow and distribute transplants for each gardener to grow at their own sites.

Many growers interested in growing for market may already be experienced growers; however few growers may have experience handling and storing produce for market. In order to ensure a quality product, the gardeners should be trained in proper harvesting techniques, washing techniques, and bundling methods. To prepare produce for market, produce from different gardens would need to be packaged in the same units; for example, the network may require that carrots from all growers should be washed, their greens trimmed, rubber-banded into 1 pound bunches, and stored overnight in a refrigerator. A market coordinator could train market gardeners at the start of the season and provide written information with standard practices for the gardeners to refer to at home. A market coordinator could also help gardeners to package and uniformly present their produce when they arrive at market, in case a gardener didn't have rubber bands or proper market containers at their homes.

GOAL

Consider a backyard CSA.

Community supported agriculture (CSA) most commonly refers to a system by which consumers pay farmers for produce in advance of the season and receive a box of locally grown produce weekly during the growing season. It is touted as a way for eaters to both connect more directly with the people who produce their food as well as to find local or regional sources of food, thus reducing carbon dioxide and other pollutants associated with the transportation costs of globally-sourced food. While CSAs typically involve one

farm distributing directly to many consumers, this model has recently been adapted to accommodate densely populated urban areas by aggregating produce from multiple sites – including backyards – in place of sourcing from a single farm. The produce is collected from multiple sites, combined into share boxes, and redistributed to CSA members. This model could operate on the initiative of market gardeners, but would likely be more successful if coordinated by a dedicated, paid manager and storage space available for storing produce between harvest and delivery. This staff could overlap with the gardeners' network, addressed in earlier sections.

A backyard CSA is a long-term proposal because it requires not only a large scaling up of production but also more precise growing practices and garden planning. Backyard growers who want to sell at markets have leeway in the amount and variety of produce they bring to a market table on a given week. However, backyard gardeners growing for CSA must have a variety and large quantity of produce to fill a CSA share box each week. Also, a decentralized distribution model of the CSA poses greater coordination challenges than growing from a single field for a restaurant or market stand. Some other urban growers, such as Backyard Bounty in Portland, Oregon, have moved away from growing on many small plots for many consumers to growing on a single field for larger purchasers, such as restaurants. *(See the Appendix: Case Studies for more information on Backyard Bounty.)* Some urban farms, such as reVision Urban Farm in Dorchester, Massachusetts, offer CSA shares to their neighborhoods by partnering with a

regional farm to supply the bulk of the CSA produce.

RECOMMENDATIONS

Follow the steps to supporting growers for market (in the previous goal section).

The city's gardeners are not currently prepared to run a backyard CSA and would need to significantly increase the amount of produce being grown in order to provide an adequate weekly supply for CSA subscribers. The amount of produce that can be grown in a backyard plot will vary greatly based on soil quality, sunlight, varieties of plants chosen, and growing techniques. While backyard CSAs have been operated successfully in other communities, they should be reserved for experienced growers who have an understanding of best growing practices and have recorded how much their garden has produced in the past so as to properly estimate their potential supply of fresh produce.

Promote the CSA and enroll members.

The CSA would benefit from a catchy name and logo. To raise awareness about the program, Groundwork Somerville could sponsor a logo design competition for community members and high school students. Promotion should begin over the winter before the CSA season and can be done at various public events, such as the Health and Wellness Fair (hosted at Somerville High School March 20, 2010), the Maple Syrup Boil Down, to kids involved in after school garden clubs at Somerville schools, or to public housing residents. Outreach could be coordinated through Shape Up Somerville, whose priority is to promote healthy eating and activity to Somerville

residents. Shape Up Somerville currently distributes “Fitness Bucks” to residents who participate in community events or cleanups. The Fitness Bucks are redeemable for discounts during a given time at local restaurants and recreational facilities, but the program could be expanded to include CSA memberships.

Although CSA memberships are usually bought in advance of the season, this can be a problem for low-income residents. Some organizations have worked around this to provide low-income residents with fresh foods by allowing them to pay at the time of delivery or by working with sponsors to help subsidize their memberships.

Coordinate with the Green Team teens to harvest and pack the share boxes.

Choosing a single day for harvesting and delivery can streamline the process of distribution, although weather may preclude harvesting on some days. Harvesting in early morning is best for most plants, especially lettuces, which become more bitter in the day’s heat. Setting a specific time and day can allow the Green Team to be involved in harvesting, packing, organizing pick up of the boxes by members or even delivering the boxes to residents by bicycle. Limiting members to Somerville residents will help make delivery manageable.

GOAL

Donate to emergency food providers.

Gardeners with extra produce that are not motivated to sell it through a distribution network may be interested in donating it. Most food donations to charity are protected under the Emerson Good Samaritan Food Donation Act.² The Act states that a person is not subject to civil or criminal liability arising from the nature, age, packaging, or condition of “apparently wholesome food” that is donated in good faith to a nonprofit organization for ultimate distribution to needy individuals.³ There are a number of emergency food providers in Somerville that would benefit from a donation of fresh produce.

RECOMMENDATIONS

Encourage Somerville growers to donate to food pantries.

Ample Harvest is a website that connects gardeners with food pantries that accept donations; there are currently over 1,500 United States food pantries listed. Gardeners can find a food pantry near them and get the information they need to arrange their donation. Food pantries can register and upload their contact information. Emergency food providers may have specific requirements for when food should be donated, depending on their storage space and distribution

² Public Law 104-210 (1996) enacted changes to existing law and appended those changes to the Child Nutrition Act of 1966, creating the Emerson Good Samaritan Food Donation Act

³ Kenneth Odza, “Donate Food Generously with Immunity,” Food Liability Law Blog, comment posted November 2009, <http://www.foodliabilitylaw.com/2009/11/articles/legislation-2/donate-food-generously-and-with-immunity/> (Accessed March 2, 2010).

schedules. Two local organizations are listed on the website: the Elizabeth Peabody House and Project SOUP. Project SOUP is a food pantry program that distributes packaged foods five days a week and doesn't have a budget to purchase fresh foods. They accept fresh produce from gardeners, but don't have refrigerator space to store the produce, so it must be donated during the week when it can be quickly distributed.

Other Somerville food providers could enroll and be accessible to local gardeners. Groundwork Somerville should include information about the program in outreach they do or on their website. Groundwork Somerville can help persuade emergency food providers to enroll by giving them information about food safety liability.

Develop relationships with emergency food providers that will accept donations.

For gardeners who do not have access to the internet, Groundwork Somerville or Shape Up Somerville could help develop relationships between gardeners and emergency food providers. For example, gardeners could call Groundwork Somerville to find out which organization is accepting produce on a given day, or market growers could agree to donate left over produce from their market table to a specific or rotating organization. The Green Team teens could bring donations from their summer gardens to food pantries and even help distribute the food.

GOAL

Facilitate sharing between gardeners.

Sharing already happens between gardeners and neighbors; a Somerville gardeners' network could encourage more sharing. This may help gardeners that have space or light limitations that only support certain types of plants to swap their produce for a different species from other gardeners. This already occurs informally, but is being established as a more formal system in some communities.

RECOMMENDATIONS

Encourage regular events where gardeners can bring their produce to trade with other gardeners.

The Urban Homesteaders League has hosted a Seed Swap which could be easily applied to a Produce Swap. A formal structure for swapping may help gardeners who feel uncomfortable with bartering participate. A possible system could allow produce to be traded by weight, by a pre-set market value, etc. The Hillsdale Produce Cooperative in Los Angeles, California⁴ developed a formal system for swapping that requires that members drop off their produce at a given time so that volunteers can organize and redistribute the goods. This system works well for members who have access to e-mail and reliable transportation, but is not designed for people without internet or who are unable to meet the necessary time windows for dropping off produce.

⁴ Hynden Walch, "How to Start a Produce Cooperative," Hillsdale Produce Cooperative, <http://hillsideproducecooperative.org/a-chapter-near-you/> (accessed April 21, 2010).

Additionally, produce swaps can be used to encourage community interaction, which is limited when the swap takes place via drop off and deliveries to porches.

The Free Farm in San Francisco, California, sponsors a weekly table where residents of the Mission District can bring their grown or foraged produce to be given away or stop by to get produce. The organizers also promote organic gardening to produce recipients by advertising volunteer opportunities at their neighborhood farm that provides the food for the table. *(See the Appendix:Case Studies for details on The Free Farm.)*

Veggie Trader is a website that allows gardeners to search by zip code for vegetables that other gardeners want to trade or sell within a given area. Groundwork Somerville (or a Somerville gardeners' network) could register as an organization and allow members to search for listings specifically from other members of the network.

GOAL

Consider a Community Supported Market.

A Community Supported Market allows consumers to buy market coupons in advance of the season and redeem them at a market stand during the growing season. Market coupons are generally discounted if purchased early; for example, \$40 in cash buys \$50 in market coupons. This helps the market vendor collect start-up money before they need to invest in seeds and supplies, gives consumers a

discount on produce, and – unlike many CSA shares – allows consumers flexibility in choosing the produce they want. This option can be combined with any of the other local produce distribution models. The disadvantage of this model is that “paying in bulk” is a less accessible option for low income consumers. CitySeed in New Haven, Connecticut operates a farmers' market and also distributes produce from the market to pre-paid employees of local business firms as well as low-income residents who pay the day of delivery. *(See the Appendix:Case Studies for more details on CitySeed's project.)*

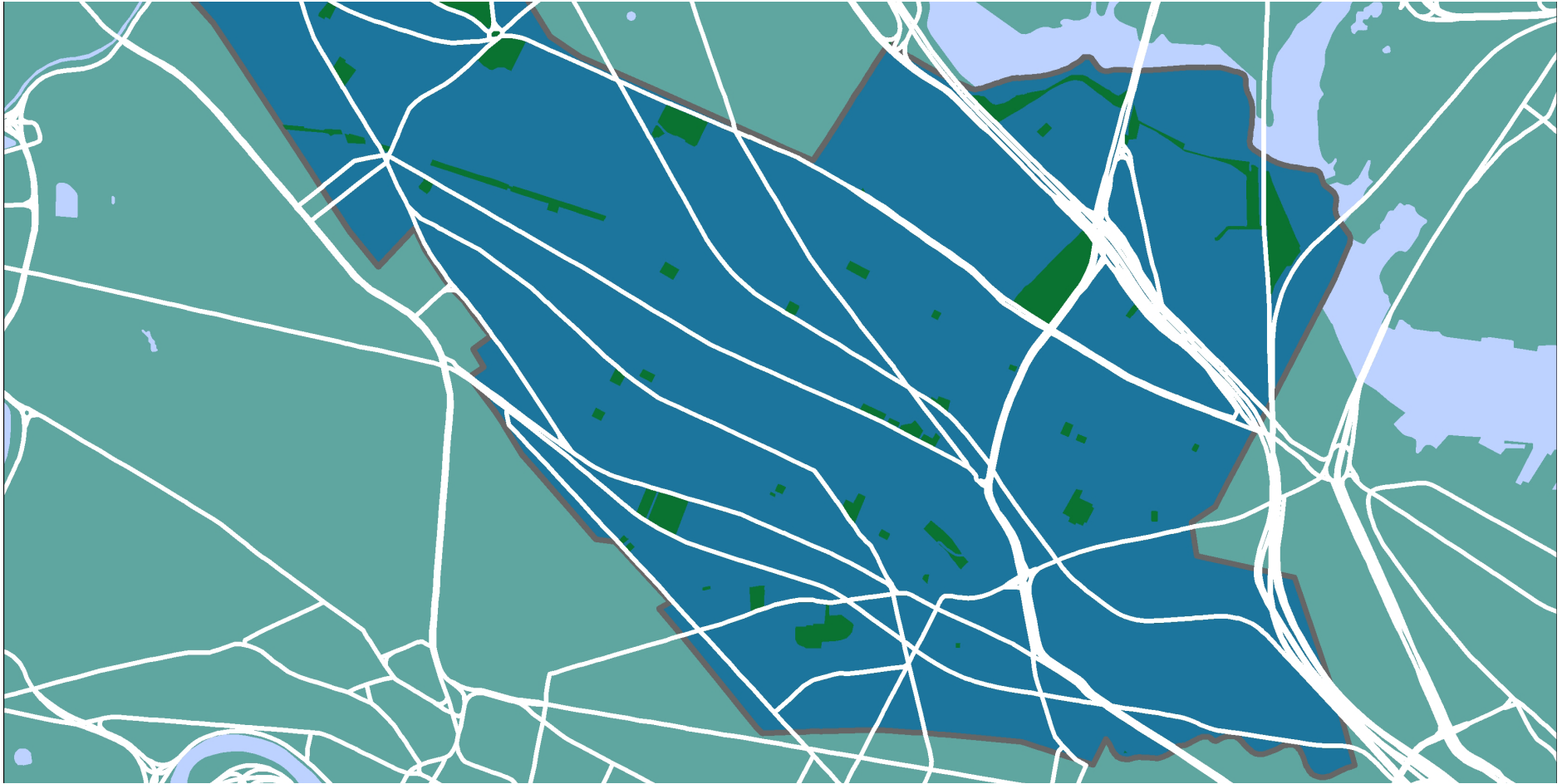
RECOMMENDATIONS

Coordinate with area groups.

Residents could redeem their Shape Up Somerville “Fitness Bucks” for their market coupons; coordination would be required between Shape Up Somerville and the market managers for reimbursement. Or, partner with Somerville Local First, an organization that promotes local, independent businesses by sponsoring coupon books with discounts to local stores and restaurants and would be a potential partner in promoting market coupons for local produce.

Educate table vendors on how to accept coupons.

Teens or gardeners working at the market table are likely to already be familiar with how to accept WIC Farmers' Market Nutrition Program coupons, but should be instructed about how to accept Market Bucks coupons so they help shoppers feel that the coupons are identical in use to cash and just as acceptable.



CONCLUSION

CONCLUSION

This report has laid out a number of goals and recommendations that are both practical and short-term or visionary and long-term. Thanks to the commendable efforts of existent urban agriculture groups in Somerville, a number of short-term goals are ready to be implemented.

1 The first task that should be addressed is the **formation of a gardeners' network**. It is recommended that Groundwork Somerville reach out to such partners as the Growing Center, Somerville Climate Action, the Somerville Garden Club, the Conservation Commission, and the Welcome Project and ask each group to appoint one member to a 'gardeners' network formation team'. Not all of these members have to operate the gardeners' network once it has been established, but relying on these representatives to at least form the network will ensure that Somerville's diverse gardeners are represented and ensure that enough help is available for the various tasks needed to launch the network.

Getting a member from each of these groups in one room to decide short and long-term objectives, potential paths to those objectives, and a timeline of events will form the basis of a working gardeners' network. It should be determined which organization is to take the lead, which person from the various represented groups is to be the head coordinator, which person is to raise funds or apply for grants, and which people are to reach out to various partners like city officials, state-

wide horticultural organizations, or even land trusts and other private charities.

It will be important to make these initial meetings a priority so as to preserve momentum and maintain focus. A number of the organizations listed here as core partners already host regular meetings. A rotation schedule could be developed in which all participating organizations take turns hosting the 'gardeners' network formation team' by giving up a portion of their regular meeting time to an hour of the gardeners' network agenda. Additionally, Groundwork Somerville, or another partnering organization might consider employing an intern or enlisting the help of a volunteer to keep the 'gardener's network formation team' stay on track.

Even during the development stages of the gardeners' network it would be wise to actively recruit any sympathetic elected officials and suggest that the city have a role in the formation of a gardeners' network. Including elected officials in the process will ensure that they feel welcome to participate through the life of the network and positions the network to cooperate on future policy relating to urban agriculture. There is no better time than now to start courting elected officials as the City of Somerville is constructing its Comprehensive Plan.

2 Once the gardeners' network has been constructed, attention can be turned to other practical goals. Given how contaminated

Somerville's soil tends to be, it is critical that urban gardeners [test their soil](#) before cultivating crops that may take up these contaminants and bring them into the gardeners' diets. For some gardeners, however, the cost of soil tests (generally about \$9-\$15, plus shipping) is a barrier to this basic step. Lack of information or confusion about how to go about getting a soil test done is a further barrier.

Therefore, Groundwork Somerville can contribute significantly to gardeners' welfare by subsidizing soil tests for low-income gardeners, and by providing information on having a soil test done.

The University of Massachusetts at Amherst is the nearest soil testing facility for Somerville gardeners. A standard soil test costs \$9 and covers, in addition to lead and other heavy metals, soil pH and soil nutrient levels. Twelve samples must be taken from around the garden to be tested, mixed together, allowed to air-dry, and then labeled and sent to the facility, along with an order form and payment check.¹ Since the facility requires only a cup of soil to be tested, shipping via the United States Postal Service's parcel post should cost no more than \$5.²

¹ University of Massachusetts Soil Testing website, <http://www.umass.edu/plsoils/soiltest/> (accessed April 30, 2010).

² U.S. Postal Service website, <http://www.usps.com/prices/parcel-post-prices.htm> (accessed April 30, 2010). *Price estimate made with the assumption that a cup of soil would not exceed two pounds in weight.*

In short, each gardener would need to pay about \$15 total in order to get their soil tested. Groundwork Somerville, either alone or in tandem with the City of Somerville, can apply for grants to cover the cost of these tests, as well as organization and program implementation costs. \$1,500 – a relatively small amount in the funding world - would cover the testing and shipping costs for 100 gardeners, although extra funding would need to be requested to implement the program. Available funding varies from year to year, but the following organizations or departments have recently had grants programs which might prove fruitful:

- Massachusetts Department of Environmental Protection (Municipal Sustainability Grants)
- Office of the Governor of Massachusetts (Commonwealth Capital program)
- U.S. Department of Housing and Urban Development (Community Development Block Grants)
- U.S. Department of Agriculture National Institute of Food and Agriculture (Agriculture and Food Research Initiative program)

When seeking funding, Groundwork Somerville should keep in mind that soil testing touches on the themes of conservation, agriculture, urban renewal, economic support, and public health. Funding could be sought from sources in any of these varied fields. Additionally, funding for soil testing is a small-ticket item that could easily be tucked into a larger funding application. All in all, this is a highly-effective goal that could be implemented (relatively) easily.

3

Compost is an essential ingredient for any sustainable garden, especially in areas with contaminated soil. Compost can prevent the uptake of some contaminants by plants and is vital for building the raised beds necessary in urban areas like Somerville. Gardener responses to our survey suggested that an overwhelming majority are faced with a shortage of compost. The shortage of compost should be one of the first goals tackled by Groundwork and the new gardeners' network.

As the only provider of composting services in Somerville, Groundwork is uniquely positioned to remediate the shortage of compost. Groundwork recognizes that the Soil Cycle composting program cannot expand in its current form, so slightly different approaches must be explored. Groundwork should lobby the city of Somerville to provide city-wide composting, as many other cities already do. Groundwork could leave the expansion of composting to the city, but with city funding Groundwork could play a larger role in the collection of compostable items, providing work for more local teens. To start a city-wide operation would be a considerable undertaking, but a composting program could be tried on a neighborhood level and rolled out across the city one neighborhood at a time.

Regardless of the route taken to expand city-wide composting, Groundwork should develop the expertise they have in vermiculture. Vermiculture is ideal for densely populated areas like Somerville. Uptake of vermiculture will likely be

slow, with cultural barriers to overcome. Groundwork is already helping to change address cultural misconceptions by locating vermicomposting in local schools. Groundwork should sell vermiculture kits and provide more workshops to promote cultural change and possibly to provide a growing source of revenue.

4

The city of Somerville is currently revising the **Comprehensive Plan**. This is the perfect opportunity to incorporate food and agriculture into a new vision for Somerville. Many other

cities have adopted comprehensive plans that make community gardens a planning priority, and allow agriculture in unexpected places. The Comprehensive Plan can include language requiring the establishment of a community garden whenever a park or affordable housing development is retrofitted or redesigned. It could also encourage agriculture on public property and public easements like the community bike path. A revision to the section establishing the planting of trees on private property can be amended to add fruit trees under acceptable tree types. The Natural, Educational and Cultural Resources committee is the perfect committee to push for community gardens to be recognized as a planning priority. Groundwork Somerville can use the recommendations made in this report as a guide to including food and agricultural issues in the Comprehensive Plan visioning process. When the Plan is completed in October and open for public comment, Groundwork Somerville should encourage gardeners to write in support of urban agricultural issues.

Summary of Goals

SHORT TERM

Make vacant lots available for cultivation.

Increase the number of community gardens in Somerville.

Amend planning and zoning laws to encourage urban agriculture.

Amend zoning laws to encourage urban agriculture.

Encourage creative gardening in and out of the ground.

Increase the availability of compost to gardeners.

Make urban agriculture a priority in the Comprehensive Plan.

Address soil fertility and contamination.

Donate produce to emergency food providers.
Facilitate sharing between gardeners.

Formalize a gardener's network.

SOIL & SPACE

COMMUNITY ENGAGEMENT

LOCAL DISTRIBUTION

LONG TERM

Revise parking ordinances to increase cultivable areas.

Better utilize city owned open space for agriculture.

Plant fruit trees on public land.

Increase backyard to market opportunities.

Consider a backyard CSA model.

Consider a Community Supported Market model.

Establish a learning farm.

Establish a shared-use community kitchen.

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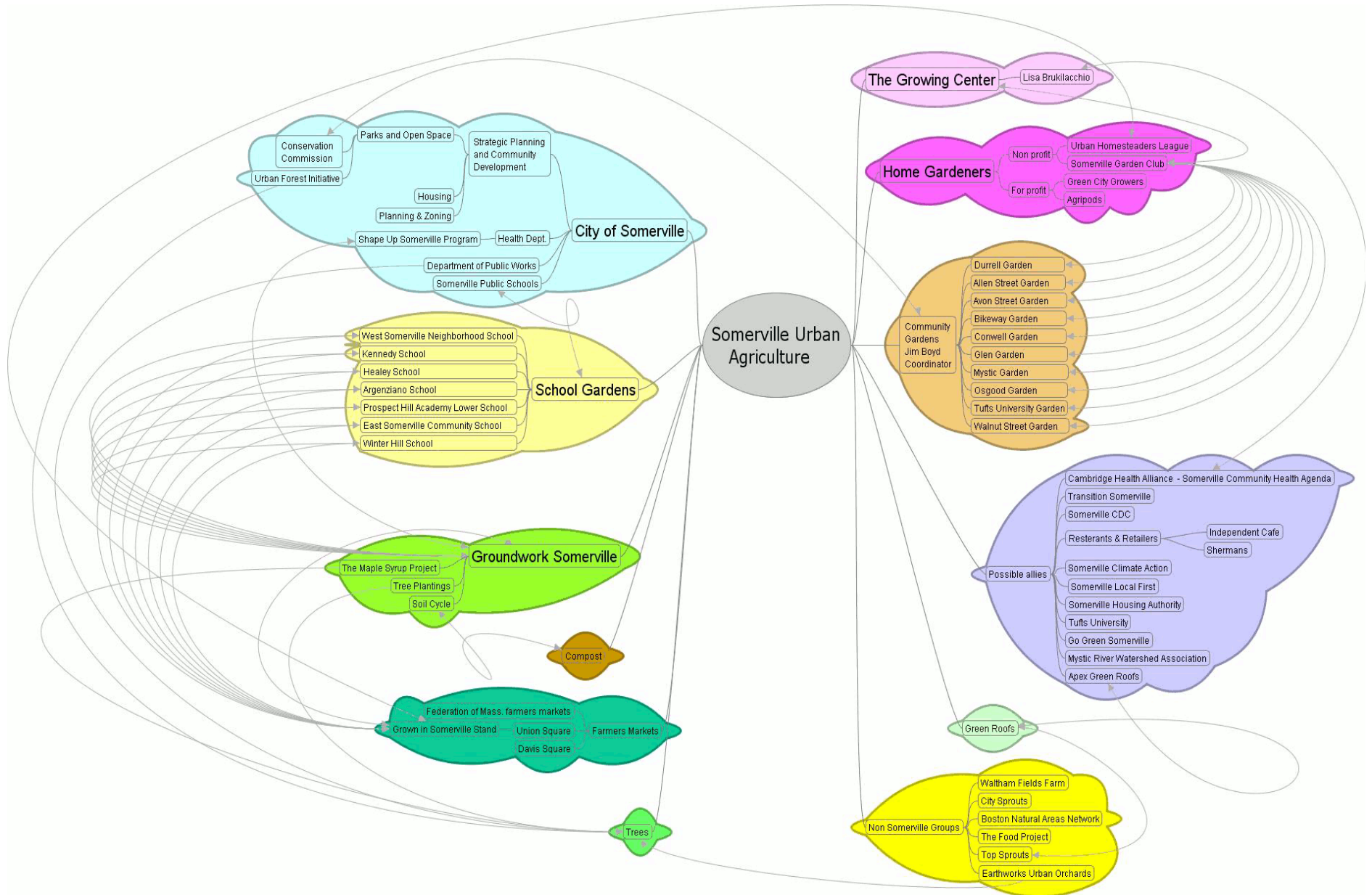
APPENDIX

Relevant Organizations



RELEVANT URBAN AGRICULTURE ORGANIZATIONS

Area organizations and their connections



APPENDIX

Design for Agriculture



RE-DESIGNING FOR URBAN AGRICULTURE

Spatial Aspects of Urban Agriculture in Somerville

As already noted, community gardens are unevenly distributed in Somerville, with a lack of access for residents of northeast and northern Somerville. Uneven distribution of resources creates issues of justice and equity within a community. Unlike Boston's Emerald Necklace park system, there is also no spatial connection between the community gardens or open space in Somerville. Despite Somerville's density, the issues of spatial connection and uneven distribution can be addressed using creative and perhaps radical design solutions.

CONTINUOUS PRODUCTIVE URBAN LANDSCAPES

Continuous Productive Urban Landscapes (CPULs) are one design solution that has recently garnered attention. The concept was created and is outlined in the eponymous book by André Viljoen and uses principles of ecological and permaculture design.¹ CPULs first identify existing ecological, cultural and geographical layers in an urban area then overlay existing open space, community gardens and farms, both inside and outside the city. Community input is used to identify spaces where people would like to see gardens and farms located. Finally the spaces are connected by ribbons of productive land, which also serve as community space and

foot/bicycle paths. The ribbons are created by reconfiguring roads and other public space along the existing ecological, cultural and geographical layers.

"You could potentially think of Middlesbrough as being this amazing town, which could incorporate what we call a 'continuous productive urban landscape' where the green spaces wouldn't be built on... you could design-in urban agriculture and really begin to make a sustainable city. This map will flag up the idea that there is a great opportunity in Middlesbrough in the future to develop this productive urban landscape idea."

André Viljoen

AN EXAMPLE OF CPUL DESIGN

Middlesbrough is a large town in the Northeast of England, which shares some remarkable similarities with Somerville. With a population of 25 in 1801 Middlesbrough underwent rapid expansion through the industrial revolution and by 2009 had a population of 138,600.² Middlesbrough is one of the UK's largest ports, but has recently suffered from a decline of heavy industry, falling population and urban blight. The town is currently undertaking a master plan aimed at regeneration and has conducted a series of programs based around urban agriculture in response to concern over public health, diet

¹ André Viljoen, ed. "CPULs: Continuous Productive Urban Landscapes," (Burlington, MA: Architectural Press, 2005).

² This is Middlesbrough, "History of Middlesbrough," <http://www.thisismiddlesbrough.com/history/index.asp> (accessed April 23, 2010).

and a lack of quality public space. To boost interest in urban agriculture, The Design Council's "Design of the Times" competition commissioned André Viljoen to re-design Middlesbrough along CPUL principles (Figure 1, right).

Figure 1: "An Edible Middlesbrough," by André Viljoen.³

3 André Viljoen, "An Edible Middlesbrough," <http://www.cabe.org.uk/case-studies/middlesbrough-growing?photos=true&viewing=7426> (accessed April 23, 2010).



A CPUL VISION FOR SOMERVILLE

A CPUL-like design for Somerville would provide a foundational vision in the effort to seriously increase urban agriculture in the city, drawing more exciting community attention than words in the Comprehensive Plan ever could. Somerville's geography is dominated by several glacial drumlins oriented from southeast to northwest. A soil map of Somerville clearly shows the best underlying soils for agriculture are situated in the low lying areas between the drumlins, a path which many of Somerville's main roads follow. The urban infill and associated construction of the built environment has degraded these underlying soils, but these flat, low lying areas are still the areas best suited for agriculture. These conforming ecological, geographical and economic layers could provide the basis for connecting together existing community gardens and future locations of small scale agriculture sites.

In Somerville, a CPUL plan (Figure 2) would involve reconfiguring one or more of the southeast to northeast running roads, for example Highland Avenue or Summer Street, creating pedestrian and cyclist focused boulevards with food growing areas integrated throughout. Such plans would obviously be politically contentious, but the city is already considering experimenting with temporarily closing some blocks to set up mobile skateboarding parks for youth to use. The vision for pedestrian-only roads could open a serious debate about whether citizens wish to continue giving spatial priority to vehicles or humans.

Somerville Continuous Productive Urban Landscape

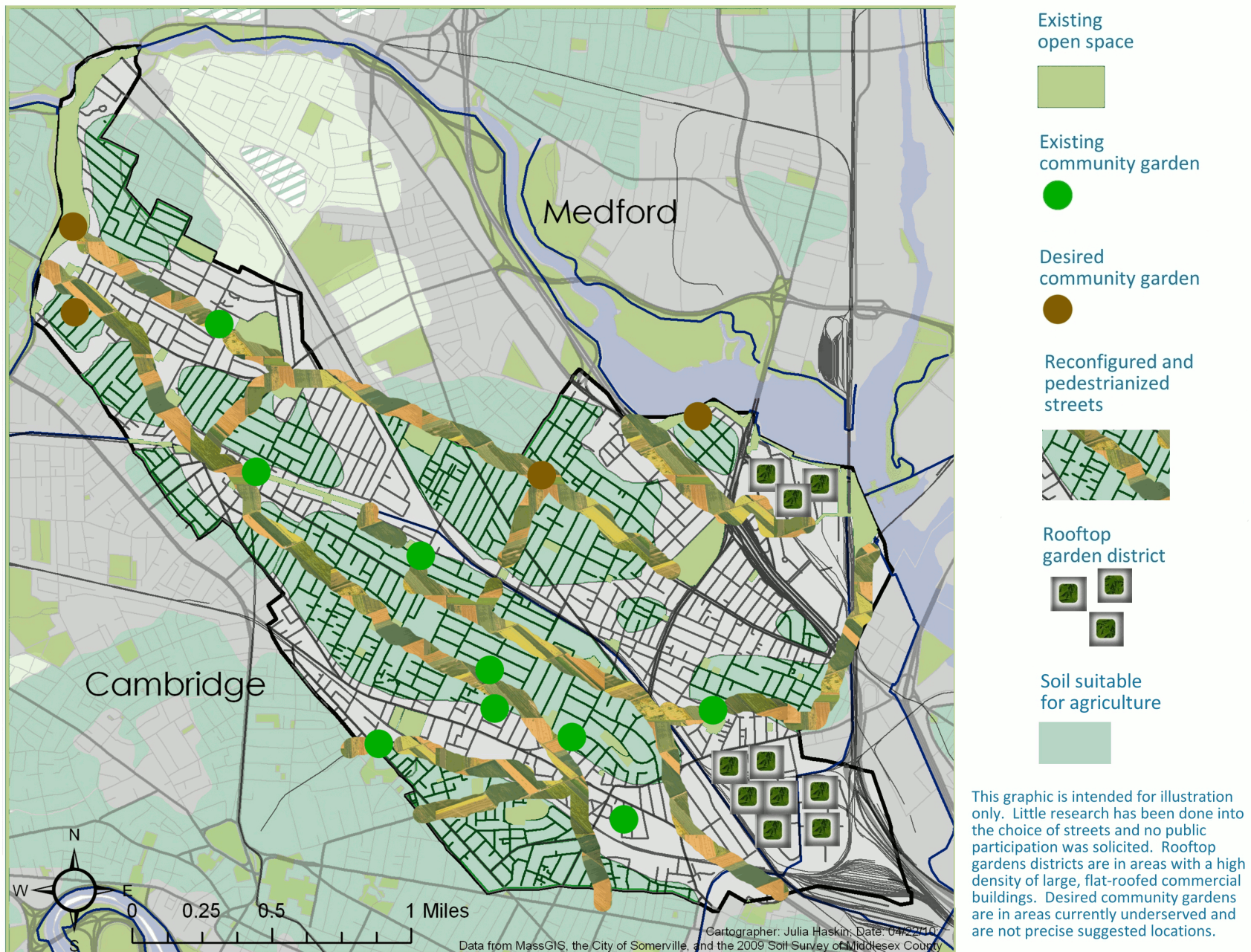


Figure 2: Potential CPUL plan for Somerville

AIR RIGHTS PARKS AND PUBLIC SPACE

Air rights development

Air rights are loosely defined as the right to develop the space above a property. Generally if one owns a property one also owns the right to develop the space above the property. Examples of air rights development include Madison Square Garden (built above the Pennsylvania Railroad in New York City) and the Rose Kennedy Greenway (built above the submerged highway in Boston). Development using air rights, particularly above highways, not only uses space more efficiently, creating new uses, but also has the potential to re-connect communities.

An example of an air rights park

Chicago's Millennium Park, although often criticized for its budget overruns, has transformed a large section of downtown Chicago by building a world class park and public space over a rail yard. In the process the park has reconnected parts of the city with the waterfront.

Figure 3: Millennium Park before.³

Figure 4: Millennium Park after.⁴



Figure 3: Millennium Park before

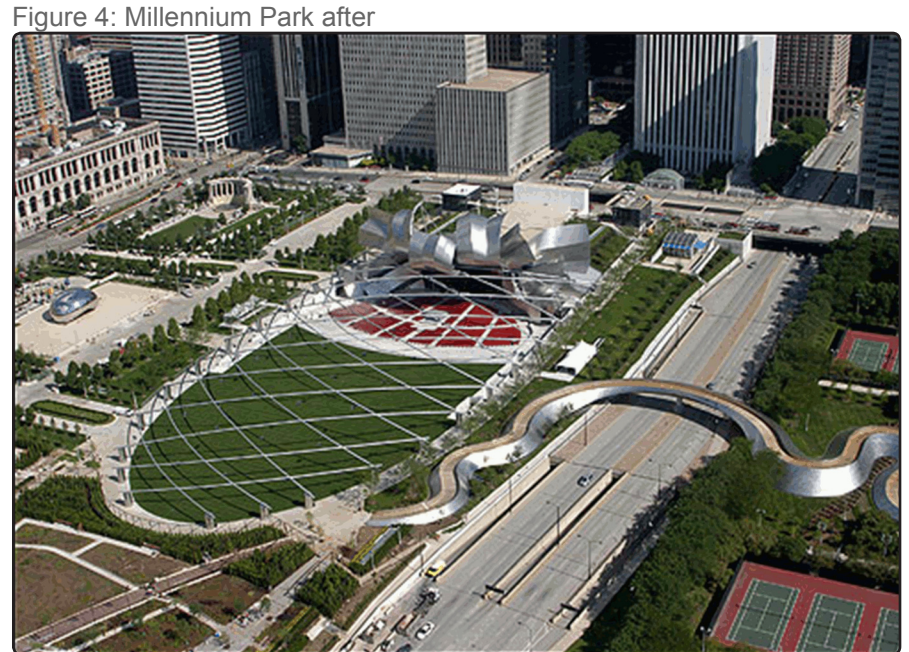


Figure 4: Millennium Park after

³ Boston Globe photo essay, "Arts and Entertainment," http://www.boston.com/news/globe/magazine/galleries/2005/0925/arts_entertainment_getaways/ (accessed April 23, 2010)

⁴ Public Building Commission, Chicago, <http://www.pbcchicago.com/upload/454.pdf>, available at http://en.wikipedia.org/wiki/Millennium_Park (accessed April 23, 2010)

Air rights application in Somerville

The Ten Hills neighborhood of Somerville is cut off from surrounding areas, not only by the Mystic River to the north, but also by Route 28, Route 38 and Interstate 93. Building an air rights park over the intersection of these roads would not only connect Ten Hills with the surrounding population, but also with Foss Park. Much of the surrounding area would also have improved access to recreation opportunities along the waterfront. Creative use of space like air rights would have to feature prominently in a CPUL plan for Somerville. Air rights parks would obviously be extremely expensive, but again the question is one of priorities, vision and creative financing.

Figure 5: Sample air rights park connecting Foss Park with Mystic River waterfront. Such a development could use CPUL principles and be a piece of a larger CPUL plan.

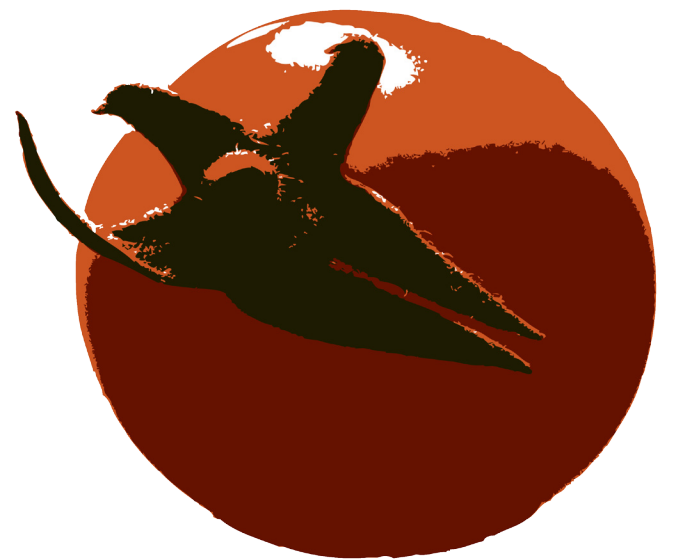
OPTIONS FOR GROUNDWORK SOMERVILLE

Lobby the City of Somerville to commission an urban landscape architect, such as Andre Viljoen, to conduct community visioning sessions and produce a conceptual plan for urban agriculture and open space in Somerville. Alternatively, Groundwork could solicit work from graduate students from local urban design schools such as Harvard and MIT.



Figure 5: Sample air rights park in Somerville

APPENDIX Gardener Survey



GARDENER SURVEY

Methods and Findings

Reliable maps and information about Somerville's eight community gardens exists thanks to the website for the Somerville Conservation Commission, which oversees the community gardens, and past UEP Field Project reports such as "The State of Community Gardens in Somerville."¹

To round out this information and provide a more complete picture of the Somerville gardening community, Groundwork Somerville expressed a desire to map and catalogue all backyard gardens in Somerville, as well as better know the needs of all Somerville's existent gardeners.

Because Somerville has such a diverse gardening community – residents growing a variety of things, in various locations and styles, for a number of reasons – the team designed a survey that could apply to all gardeners across the growing spectrum. Groundwork Somerville and the team agreed that, given time constraints, distribution of the surveys to every backyard gardener would not be feasible for this report and decided to use the gardener survey as a pilot for future surveys that Groundwork Somerville or other groups could conduct.

The team isolated clusters of gardeners in order to distribute to the most gardeners in the least amount of time and captured feedback from gardeners by attending group meetings

(in-person meetings with the Somerville Garden Club, the Boston Natural Areas Network (BNAN)'s annual Gardeners' Gathering, and a neighborhood seed swap in Somerville organized through the Urban Homesteaders' League), and distributing an online version of the survey to all the community gardeners with the help of the garden coordinators for each community garden in Somerville.

Though the initial survey attempts did not capture as diverse a gardening community as the team would have liked, they did allow the team to test survey content, form, and distribution methods. Each distribution event provided the team with helpful data; in-person events, such as the neighborhood seed swap, the Somerville Garden Club's March meeting, and BNAN's Annual Gardeners' Gathering were excellent opportunities for team members to answer questions and expand upon any unclear survey phrasing.

SPOTLIGHT The Somerville Garden Club

Members: mostly older, experienced residents

Growing: some produce and herbs, but mostly flowers.

Activities: The club has developed a reputation in the community for its monthly meetings that offer expert-led mini workshops, question-and-answer sessions, break-out groups, and a raffle of various gardening goodies.

¹ T. Evans, J. Filapek and D. Ralph, "The State of Community Gardens in Somerville: An Examination the Past and a Glimpse into the Future," (Field Project report, Tufts University, 2000).

Some in-person events were less successful than others at capturing responses. Administering the survey at BNAN's Annual Gardeners' Gathering captured the least amount of responses of all the distribution events as the gathering mostly draws gardeners from the Boston area and the festive nature prevented any Somerville residents in attendance from taking the time to complete the survey. In fact, most Somerville gardeners who were approached often requested access to an online version.

The online distribution was successful and the team encourages future surveys to be available in an online or digital format. Respondents were prompt – most completed the survey within a week of initial distribution from the garden coordinators – and candid.

Enlisting the community garden coordinators help in forwarding the survey, on behalf of the team, to their respective community garden members was done to increase the rate of response. The team assumed that emails from an anonymous student group would be met with more resistance than emails from a known source and encourages future surveys or interviews to call upon community garden coordinators for help with outreach.

Survey Results

Though drawn from distinct groups of gardeners, the survey results, revealed some interesting trends that could apply to most Somerville gardeners and offers some launching points for courses of action.



Testing soil is the single most important step an urban gardener can take.

Respondents from our survey reported that while many had tested their soil, 40% had not.²

Compromised soils are often remedied through organic matter easily obtained from compost.

It appears that residents are anxious for more compost as 83% of respondents expressed an interest in having compost made available to them, regardless of whether or not respondents already compost on their own property.

Given the extent of Somerville's soil contamination and the value of composting in reducing soil contamination or filling in raised beds, access to compost is an enormous hurdle for urban gardeners. Regardless of the age, experience, location or plants grown, Somerville residents are very eager to obtain compost to remedy pervasively high lead levels in soil. It is

² This may be due to the large percentage of respondents who are from city-run community gardens, as well as other gardeners who are likely growing in containers.

possible that Somerville residents are relying on compost to remedy soils they presume to be toxic and aren't bothering to test soil prior to planting.

A teal-colored circle containing the text 'COMMUNITY KITCHEN' in white, bold, uppercase letters.

COMMUNITY KITCHEN

Additional results show that 50% of respondents also expressed an interest in a community kitchen, regardless of whether or not they felt they grew enough produce to be worthy of community kitchen use. In fact, very few respondents expressed any current or previous consideration of retail distribution of their produce - 86% of respondents indicated that they had never considered selling their produce. The team agreed that future surveys should include more detailed questions about respondents' interest in a community kitchen, including questions about how often respondents anticipate using such a facility, reasons for wanting access to such a facility, and willingness-to-pay for such a facility. The team expressed apprehension that respondents wanted a community kitchen more for its 'public good' aspect - simply wanting a community kitchen to exist - rather than expressly wanting a community kitchen for themselves.

A teal-colored circle containing the text 'SKILLS & SPACE' in white, bold, uppercase letters.

SKILLS & SPACE

The survey also demonstrated that a number of gardeners, even gardeners from established gardening groups, want to gain skill and knowledge so that they can grow more produce. The team anticipated that many respondents would indicate that in order to grow more or expand their gardens, respondents would require more space and more time. However, since many respondents believe their garden size to be in proportion to their expertise level, the team agreed that future studies should explore this need in more detail.

Conclusion

The gardener survey was a useful tool for establishing where a number of gardeners are gardening and by what method, determining gardener perception of their current output and associated satisfaction, highlighting areas where garden networks or city policies could address gardener needs, and, finally, testing the degree to which gardeners would respond to such a survey. The team has concluded that a number of points require further, more detailed examination, and that the current enthusiasm of Somerville's gardening community should be tapped as a source to inform policies, steps forward, and outreach in the urban agriculture community.

Somerville Gardener Survey

Somerville has a proud history and rich food culture. Our goal is to strengthen this tradition by allowing more people to grow and access Somerville grown, fresh produce. Your open answers to the following questions will help to determine the current production of home grown food and identify barriers to increasing that production.



Your name

Years gardening

Why did you start gardening?

Are you active in any gardening clubs or organizations? If so,

Are you familiar with organic standards?

Are you familiar with pesticides?

Do you actively use them?

Do you compost on-site?

Would you like to have compost available to you?

Would you be interested in a community kitchen where you could can produce or prepare foods with others?

Do many of your neighbors garden?

If no, what do you think are the barriers to them participating?

Garden Address

Has your soil been tested?

If so, when and by whom?

What were your lead levels?

My Garden is in; a) my backyard ☐

b) containers ☐

c) a community garden ☐

About how large is your garden?

Small (0-25 sq feet) ☐

Medium (26-50 feet) ☐

Large (51+ feet) ☐

Do you have room to expand your garden?

Do you start your own seedlings and order your own seeds?

If not, where do you buy your seedlings?

How many kinds of produce do you grow? (produce = fruits, vegetables, herbs)

Less than 5 kinds ☐

5-15 kinds ☐

20+ kinds ☐

What do you tend to grow the most of?

Are you satisfied with the amount of produce you grow?

What would you have to do to grow more?

More time ☐

More space ☐

More energy ☐

More skills/knowledge ☐

Do you generally grow enough produce to share?

Is it enough to share with;

neighbors? ☐

family? ☐

coworkers? ☐

more than 20 people? ☐

Have you ever thought about selling your produce?

If so, what prompted you?

Can we contact you with further questions and news?

Email address;

Can you recommend other gardeners we could talk with? If so please provide their name and telephone or email address below.

Groundwork Somerville &
Tufts University - Urban + Environmental Policy + Planning

APPENDIX World Crops



WORLD CROPS

Growing for Somerville's diversity

RECOMMENDATION

Survey Somerville residents to determine their desired crops.

According to the 2000 US Census, foreign-born residents represented nearly 30% of Somerville's total population. The most frequent countries of origin reported were Brazil, Portugal, El Salvador, Haiti, China, Italy, India, Canada, Ireland, Guatemala. Growing crops specifically for these communities may attract a more diverse group of shoppers to the farmers' markets and support the food desires of all of Somerville's residents.

(Crop information source: World Crops (www.worldcrops.org) and New Entry Sustainable Farm Project (www.nesfp.nutrition.tufts.edu))

BRAZIL

Abóbora moranga
Abóbora japonesa
Cabbage (repolho)
Cauliflower (couve-flor)
Cilantro (coentro)
Collards (couve)
Corn (milho)
Culantro (coentro do Pará)
Epazote (Mastruz)
Jiló
Malagueta pepper
Maxixe
New Zealand Spinach
Okra (quiabo)
Sweet potato (Batata doce)
Taioba

PORTUGAL

Abóbora moranga
(abóbora menina)
Collards (couve)
Fava Beans (habas)

EL SALVADOR

Ayote Tierno
Cabbage (repollo)
Calabcita (Pipían)
Chipilín
Cilantro
Corn (maíz)
Loroco
Pipían

HAITI

Okra
Corn

CHINA

Bok Choi
Chinese broccoli
Water spinach
Yu Choi
Long bean
Chinese Celery
Chrysanthemum greens
Fuzzy melon
Mustard greens
Napa cabbage
Pea tendrils
Asian cucumber

ITALY

Fava Beans

INDIA

Bitter Melon
Lemon grass
Cilantro

APPENDIX

Case Studies



CASE STUDY Nuestras Raíces Farm

Location Holyoke, MA

Founded 1992

Web www.nuestras-raices.org

Information source Website

Overview

Nuestras Raíces Farm is a 30 acre farm comprised of ¼ acre to 1 acre rented lots, a petting zoo of native Puerto Rican and Caribbean livestock and fowl, farm stand with gift shop, a barbeque pit, and a horse farm. In addition to acting as a farmer-training farm, the farm hosts many community and social events and acts as an agricultural anchor for Holyoke's Latino community.

Description

Nuestras Raíces Farm was founded “by the members of La Finquita community garden... with the goal of developing a greenhouse in downtown Holyoke”. Community garden members expressed interest in starting agricultural businesses that would provide fresh food for themselves and others. This communal and entrepreneurial spirit is the foundation of Nuestras Raíces and has secured it as a valued place for Holyoke's primarily low-income and Latino residents who gush that the farm looks “just like Puerto Rico”.

Nuestras Raíces is notable for its programs that advance the social, economic, community, and personal health of Holyoke residents. Through youth and women's leadership programs,

environmental justice organizing, and green jobs initiatives, Nuestras Raíces programs have an expressly community development aspect.

Main takeaways and suitability for Somerville

Nuestras Raíces is an ideal urban farm model for Somerville to follow for numerous reasons. Firstly, Somerville's diverse ethnic gardeners have yet to be reached out to, and an urban learning farming with an expressly community-based and culturally proud agenda might encourage these residents to garden more seriously or encourage new gardeners not yet growing. Secondly, Nuestras Raíces' inception was the direct result of residents looking to sell their produce and establish food-related businesses. Residents in Somerville who have expressed similar interests would likely find such an urban farm to be of use to them. Thirdly, Somerville's interest in urban agriculture as a community and economic development tool could be expanded through such an urban farm that offers farmer training, launches small-businesses, and engages youth in skill-building activities.

CASE STUDY Little City Growers Cooperative

Location Providence, Rhode Island

Founded 2004

Web <http://littlecitygrowers.org/>

Information source Website and interview with Catherine Mardosa, operator of Red Planet Vegetables, one of the founding growers of LCGC.

Overview

Several urban farmers and multiple backyard growers selling under the collective brand Little City Growers at a farmers' market in Providence and to 10 restaurants.

Description

Little City Growers Cooperative (LCGC) was founded as a fun way to sell the surplus produce of several small urban farms, after they had supplied their CSA customers with shares. Beginning with two small farms, increasing to five and now at three, they are at times joined at the market by additional backyard farmers who have a small surplus that they wish to put to good use. The backyard growers are motivated more by the fun and community aspect than by profit. Farmers and growers with surplus produce approach LCGC to join, rather than LCGC recruiting new growers. All produce is raised organically, although not certified. Trust and good personal relationships form the basis of the cooperative. All growers are within a 15 mile radius of each other.

One of the main benefits of starting the cooperative was to spread the stress of selling to restaurants between several

growers. The produce LCGC sells to restaurants comes solely from the urban farmers. Each week a spreadsheet is circulated to the farmers, who fill in what produce they have available. Members of LCGC take turns coordinating this. The compiled list is sent out to participating restaurants, which then place orders. Some chefs pick up from the weekly farmers market, or the farmers deliver to restaurants, taking turns with their own trucks. Produce is collected at a central point and refrigerated before distribution. However, keeping the food cool and dry before distribution has proven to be one of the biggest challenges for LCGC. The restaurants are all located within a 10 mile radius of LCGC's collection point and tend to be an independently-operated restaurant rather than chain restaurants. There were initially some problems with chain restaurants because of their lack of flexibility so LCGC has focused on single branch restaurants and developed good relationships with the chefs, who seem willing to take the extra steps to secure quality local produce.

Although 2009 was a bad year for small farms, the LCGC had sales of just over \$30,000, split roughly evenly between the farmers' market and restaurant sales. According to one of the

CASE STUDY Little City Growers Cooperative

founders, there is room to increase sales. Herbs are their best sellers and are highly recommended for similar ventures

Main takeaways and suitability for Somerville

A similar model could work for Somerville, but Somerville is currently lacking medium-scale urban farmers to anchor the farmers' market table and restaurant sales. There are no growers of this type in Somerville, but perhaps urban growers could be drawn in from the greater area to anchor a city food table and encourage local backyard growers to drop off excess produce when available. Another suggestion would be to expand beyond the city in line with the watershed. This could be an innovative approach including the possibility of collaborations with watershed associations. Either way, a more consistent supply of produce than Somerville could presently provide, would be required in order to motivate restaurants to be involved with a cooperative. Herbs and specialty products such as salad mixes have proven to be good earners, easy to transport, and store.

CASE STUDY East New York Farms

Location East New York, NY

Founded 1998 with two gardeners

Web www.eastnewyorkfarms.org/index.php

Information source Website and interview with Deborah Greig, Agriculture Coordinator.

Overview

East New York Farms (ENYF) runs two small urban farms and two farmers markets. They act as an intermediary for a CSA, for which all of the produce comes from a farm in upstate New York. ENYF also operates a collective table at the markets for backyard growers not producing enough to warrant their own table. They supply fresh, affordable produce to 17,000 people each year.

Description

“The mission of the East New York Farms Project is to organize youth and adults to address food justice in our community by promoting local sustainable agriculture and community-led economic development. East New York Farms is a project of the United Community Centers in partnership with local residents.” East New York is a diverse and poor area with 180,000 residents. The organization was founded to train youth, utilize blighted and vacant land, address food security issues and provide income streams to residents.

ENYF uses their two urban farms, UCC Youth Farm and Hands and Heart Garden, to facilitate learning for their youth

interns and provide food to sell at market. The money earned is used to pay the interns' stipends.

ENYF has a network of fifty gardeners, to whom they offer various levels of support in growing produce, some to the extent that ENYF does most of the work, including harvesting, for them. The percentage of sales that ENYF takes depends upon the level of support required by a gardener. The 20 growers they work most closely with represent both community gardens, of which there are over 65 in East New York, and people with backyard gardens. These growers sell at the market, five of them producing enough to have their own tables and the rest aggregating at the collective table. Most of the five top sellers operate multiple plots, with some achieving sales of \$4,000 in 2008.

The upstate farm supplying the CSA also sells at market, providing many staple fresh food products, but also serving as an anchor for the smaller growers from ENYF's community network. Many of these smaller growers specialize in ethnic varieties such as crisp collard greens, callaloo, bora, karela and cilantro. Both community building and the chance to earn some extra money are motivating factors for the

CASE STUDY East New York Farms

growers. ENYF offer training and micro finance loans to people interested in growing for market. As a result in 2008 urban gardens in East New York grew over 14,000 pounds of produce. All the community gardens are chemical free and they try to limit uptake of soil chemicals through education. ENYF does not currently sell to restaurants although they encourage chefs to visit the farmers' markets. However, restaurants in the area want ethnic crops beyond what the farmers' market currently has. In the future, there is opportunity to provide more of the ethnic crops sought by restaurants, increase the number of vendors and use more vacant space for growing. ENYF would also like to add livestock and greenhouses.

Main takeaways and suitability for Somerville

The presence of a larger, non-urban farmer to supply the CSA and anchor the market are vital to the enterprise. The level of youth and community involvement is very compatible with Groundwork's current programs. ENYF highlights the importance of community gardeners being able to sell produce from their plots, in order for small urban growers to be able to provide a consistent supply. The main difference is that East New York has many vacant lots seeking productive use, whereas Somerville has very few.

CASE STUDY Grown In Detroit

Location Detroit, MI

Founded 2006

Web www.detroitagriculture.org

Information source Website and e-mail interviews with Nicole Zahm (current coordinator) and Leah Rutherford (former coordinator)

Overview

The Grown in Detroit cooperative provides support to urban growers to bring their homegrown fruits and vegetables to sell at farmers' markets, restaurants and other retail outlets across the city.

Description

Grown in Detroit (GiD) is an initiative of the Garden Resource Program Collaborative (GRPC) emerging from the collaboration of The Greening of Detroit, Detroit Agriculture Network, Earthworks Urban Farm/Capuchin Soup Kitchen, and Michigan State University. The goal was to support urban gardening and farming initiatives in the cities of Detroit, Hamtramck, and Highland Park, providing an economic return for gardeners and more fresh produce for residents.

From 26 gardeners selling \$6,276 worth of produce in 2007, GiD sales were \$14,668 from 46 gardeners in 2008 and in 2009 reached \$40,000 from 63 gardens. All growers are urban and must live in Detroit, Highland Park, or Hamtramck. All soil must be tested and soil test report provided to GRPC to ensure either no or low levels of contamination. The

growers must also pledge to grow without pesticides. GiD works with gardeners to find uncontaminated land and help them grow organically. Growers with all levels of experience are allowed to participate. GiD grew out of the Market Workgroup of GRPC, which consisted of gardeners already interested in selling surplus produce. With time, the GiD coordinators began to recruit people who were not growing, but wanted to start, helping them overcome barriers. GRPC hosts many garden workshops and classes. GRPC also provides specific seeds and seedlings to market gardeners, based upon what restaurants have said they are interested in buying. Most of the sellers use GRPC seeds and seedlings while some growers do grow their own varieties to capture niches in the market.

There seems to be a healthy combination of motivating factors for the gardeners to sell through GiD, including a passion for growing food, the opportunity to earn money, a desire to supply fresh food to city residents, and the social aspects of being at a market and interacting with the community and to connect with other growers.

CASE STUDY Grown In Detroit

Beyond the farmers' markets, GiD sells to restaurants and other retailers. The Market Coordinator takes orders from restaurants and contacts growers to fill the orders. Growers then drop produce off at the office or the Coordinator drives to collect them and deliver to the restaurants. Early in the season, GiD gets together with buyers to evaluate demand and share estimated prices and availability. The restaurants and retailers they work with are already very interested in, and knowledgeable about, local food.

One staff person is devoted to GiD during the market season, with oversight needed at all farmers' markets, partly to tally and distribute earnings but also because a Greening of Detroit staff member must be present for the liability insurance to be valid. There are also three AmeriCorps volunteers and one or more part-time volunteers. Staff are also involved in harvesting produce from the two urban farms run by Greening of Detroit. Heavy staff involvement is seen as necessary due to the large size of the cooperative, although the growers are keen to take on more responsibility. Staff commented that GiD could be volunteer-led, but would probably be smaller and look quite different to the current set-up.

Developing the accounting system and coming up with a standardized unit for selling was one of the biggest challenges facing GiD. Many growers were reluctant until they saw how the accounting worked. Educating buyers about what the

true price of food should be, also represented a significant barrier, with a tough balance between providing affordable food and providing a fair price to the grower. They have also encountered problems with the legal issues associated with value added goods. Lessons they have learned include, using Just Food's "Urban Farming Toolkit" and jumping in, making corrections as the cooperative grows.

Main takeaways and suitability for Somerville

Detroit is in a vastly different city than Somerville. While Somerville is facing gentrification and rising property prices, Detroit is facing depopulation and urban blight. In Detroit there is plenty of land available and people desperate to earn extra income. GiD does provide a nice model of what can be achieved through a collaboration of non profits and institutions of higher education. With the many overlapping missions of the organizations involved in urban agriculture in Somerville, this kind of far-sighted collaboration will be vital to the success of a Somerville growers cooperative. The involvement of Tufts on more than a consultancy level, providing volunteers for logistics and possibly land could also be central to the development of a significant cooperative.

CASE STUDY Windy City Harvest

Location Chicago, IL

Web www.chicagobotanic.org/windycityharvest/

Information source Kelly Larsen, Windy City Harvest Supervisor

Overview

Windy City Harvest (WCH) is an organic vegetable production enterprise that provides instruction in sustainable horticulture and urban agriculture to young adults. Produce grown supplies their own kitchen, but is also sold at several farmers markets and a specialty food store. The program is a collaboration between the Chicago Botanic Garden and the Richard J. Daley College.

Description

Young adults from the city of Chicago are eligible to participate in WCH. Students receive six months of hands-on instruction in greenhouse and outdoor growing practices, followed by a three-month paid internship. Students can also opt for a five-month certificate in cool-weather growing techniques for in-ground greenhouses (hoophouses) and glass greenhouses.

Windy City Harvest participants study at a local community college and other sites. One site has 36 raised beds, 6 feet by 10 feet in length. They also use three city lots on the west side of city, plus a hoophouse located at Cook County Boot Camp with 3/4 of an acre of land. The main goal of WCH is skill building, but providing healthy, local food to the community also features highly.

Other than supplying the Richard J. Daley College kitchen, WCH sells at several farmers markets, mostly in economically disadvantaged areas. Some markets feature conventional growers, too. In these circumstances, consumer education and marketing have been important. For example, WCH provides flyers with information about growing practices and taste tests at the market table to compare their produce with other vendors produce. These tactics helped win a customer base despite slightly higher prices for their organic produce.

WCH also sells to The Green Grocer (TGG), a specialty food store focused on local food. They have built the relationship with TGG and now sell three times as much as in their first year. TGG has been very flexible as WCH have grown their business. WCH let send out available weekly and TGG responds back by phone or email, with WCH delivering the produce. In-store signs placed next to the produce feature a photo and overview of WCH. WCH also provide a price list a year in advance, although some prices will vary, for example if they have a surplus food that they want to move. A recipe card is included with sales, which helps to sell products that are less familiar to people. WCH is not yet “GAP certified” (USDA’s Good Agricultural Practices) which restricts them from selling to certain retailers. Pricing vary between a

CASE STUDY Windy City Harvest

wholesale price and depending on the demographic of the consumers.

WCH emphasizes the need to know your audience. They started with a crop plan for high value crops that the community ended up not wanting, so they're going back to basics. WCH also had a hard time selling head lettuce so now they only grow leaf lettuce. Another lesson to note was the need to check state laws before handing out samples at farmers markets.

The next step for WCH is to try a "U-Pick" at the west side site, where people are able to harvest their own produce. Such a system does require more supervision than a farmers' market, but offers excellent educational opportunities. WCH is also collaborating with Chicago-based USDA employees. Because Chicago's USDA offices are downtown, the Chicago People's Garden is located at WCH's garden. USDA employees volunteer on the farm. The collaboration has proven fruitful, with USDA staff helping WCH get EBT and WIC payment systems at the markets. USDA nutritionists are also able to offer advice and tips to community members.

Main takeaways and suitability for Somerville

WCH offers an excellent example of innovative collaborations, again an approach which will be valuable for Somerville.

Chicago is in a similar situation to Somerville with Advocates for Urban Agriculture in Chicago trying to work out how to organize the various growers and organizations. Much of the open space in Somerville is held by educational institutions and Groundwork already has great relationships with the public schools and Tufts. Would Tufts be interested in starting an urban learning farm on their Somerville property? Another potential base for a similar scheme in the Somerville area could be Bunker Hill Community College. Although it is in Boston and there are currently no programs in agriculture or horticulture, many young adults from Somerville attend the College and would bring back skills and a desire to grow food to their community.

Another collaboration to highlight is that with the USDA. The motive for the USDA could be just publicity, but it is also mission driven. Regardless of the motivation, there are excellent benefits to staff wellness and job satisfaction. Groundwork is currently looking at a partnership with Top Sprouts and local businesses to install greenhouses on top of businesses with flat roofs. Could siting the greenhouses on the roof of a business be extended to involve the employees of the host business in the actual growing? A collaboration such as this with the right company could be extremely rewarding for all parties.

CASE STUDY Backyard Bounty Farm

Location Portland, OR (Milwaukee Neighborhood)

Founded 2007

Web <http://backyardbountypdx.wordpress.com/>

Information source Website and interview with Melanie Plies, Backyard Bounty Farm operator

Overview

Founded as an enterprise aimed at turning several lawns into food gardens to provide a small CSA, Backyard Bounty has now transitioned toward being a small urban farm, still providing some CSA shares but focusing on restaurant sales.

Description

After starting out as an 8 member CSA, cultivating neighborhood gardens in SW Oregon, Backyard Bounty partnered with Sunroot Gardens in 2008, turning over 20 lawns into gardens. 2008 also saw a geographical expansion into SE Oregon, with travel between gardens by bicycle. In 2009, Backyard Bounty got the opportunity to lease a large plot of land, which they call Lovenia. It is a 2.7 acre piece of property owned by four households, with Backyard Bounty leasing around a half acre. They now grow over 200 varieties of produce.

Produce is sold through a CSA, with two pick up locations and to around 15 restaurants and a co-op grocery store. Their sales pitch is “Hand picked, bike delivered, fresh produce—direct from the farmer to your door. Choose from over 200 varieties of heirloom vegetables, herbs, and fruits grown within

5 miles of your restaurant.” Working with the restaurants has been easy and informal, with Melanie forming good personal relationships with sympathetic and interested chefs. There are no current plans to reach out to new restaurants, with the farm producing at capacity. The focus is shifting away from CSA and more toward one large restaurant in particular, offering logistical benefits. On occasion, Backyard Bounty has brought in produce from other urban growers to fill a large order.

Every Monday a list of available produce is sent by email or phone calls are made to restaurants. Most have other suppliers they can use if Backyard Bounty runs out, however they do try to maintain a consistent supply. Planting schedules are based on chef’s needs, all of whom made lists over winter stating what they need and when. The restaurants they work with trust Backyard Bounty to provide safe food and do not require liability insurance. In one instance they stopped selling to a restaurant that required lettuce to be cleaned in a commercial kitchen. It was not worth the extra steps for them. Overall, as is the case in Somerville, the chefs are supportive, flexible and appreciate the niche value of hyper-local food, even though they could get produce from many farms within 100 miles.

CASE STUDY Backyard Bounty Farm

Main takeaways and suitability for Somerville

Backyard Bounty offers an interesting example of how an urban agriculture enterprise might progress if run as a true business subject to market forces, however Portland has considerably more public open space and ample private garden space. Unlike other start-ups they do not have the salaried staff of a non profit, or the volunteers. This seems to have forced Backyard Bounty to consolidate and simplify its business, moving from many plots supplying many people with food, to one plot supplying one restaurant. There are important implications in this for Groundwork Somerville. Is it possible to run a fiscally strong urban agriculture enterprise that is not spatially scattered? Groundwork would face problems with both the backyard CSA model and the small urban farm to restaurant model highlighted here. It seems that the backyard CSA model is logistically challenging, which Groundwork could overcome with volunteers. Groundwork would also need a larger grower from outside Somerville to anchor the CSA and provide consistent supply. The small urban farm to restaurant model would not be possible at this time due to a lack of growing space.

CASE STUDY The Free Farm Stand

Location San Francisco, CA

Web www.thefreefarm.org

Information source Website and interview with Tree, Free Farm Stand operator

Overview

Free Farm Stand runs as a cooperative distributor of backyard produce from various growers and urban farms. The produce is given away at their Sunday farm stand.

Description

The Free Farm Stand (FFS) is a project of the No Penny Opera (a tax exempt organization). The purpose is to share the wealth of urban farms and gardens. The mission states; “We are dedicated to aiding the food security and health of our community through garden and food education and the growth, harvest, and dispersal of organic backyard and community grown produce. We support the right of all people to have access to fresh, nourishing food and we believe that empowering youth and adults to take part in their local food system can create change that will systemically improve the way we eat. We also believe that food education will improve our health and well being as a whole.”

The Free Farm is an urban farm in San Francisco, whose goal is to grow organic produce, foster garden education, and build community. They also have a broad partnership with several other non profits that have urban farms or gardens and who provide food to the stand. Produce is offered to the

community for free in an effort to “combat hunger, aid health and nutrition, and increase resource sharing and care for one another.” The farm is open to the public on Saturdays and Wednesdays from 10am to 2pm, with everyone welcome. There are volunteer tasks for people of all skill levels and physical abilities.

FFS grow as much food as they can in San Francisco with a focus on their surrounding neighborhood of the Western Addition. The stand operates 12 months of the year and in 2009 the total amount of food given away was 6712 pounds. They also offer garden advice and help, including free seedlings, to those who want to start a backyard garden. A large focus is community and they actively encourage growers with surplus to stop by and drop off food. FFS also harvest organic fruit from fruit trees in backyards and public spaces and give honey from local bee keepers and educate neighbors about bees and gentle beekeeping.

It is assumed that the people who take the food are low income, but no proof of “need” is required to take food from the FFS. They get a lot of Spanish speaking people, and lots of interest from local “foodies”. Some groups come early and get as much food as possible, possibly re-selling, but in

CASE STUDY The Free Farm Stand

general most people are respectful and appreciative. FFS has been giving food away for years, but they are now trying to promote food growing, moving people from consumption to activism. This process has been slow. The gesture of giving away food is meant to serve as a strong example for the values that FFS hope will spread. They hope to make a “better world by thinking of each other as a family and sharing things rather than competing and selling each other things.”

As mentioned, many Spanish speaking people visit the stand, with FFS trying to embrace this by staffing the stand with Spanish speakers and providing information in Spanish. People from the neighborhood do volunteer in growing the food, but the volunteers tend to be white English speakers rather than members of the Latino community. FFS does not know why this is the case, but they value the farm as a tool to break down cultural barriers. They accept that not everyone needs to be involved, with people coming to help for many different reasons. FFS use the farm as a valuable tool to “promote good feelings among people and slowly open up channels of communication - get people to talk with each other and feel less isolated.” FFS do not just want to provide food but offer people a sense of home.

In the future FFS would like to start a farm, but they are in need of suitable land. They are looking at a neighborhood with lots of seniors. The vision for the operation would be “to run something out of a home rather than an institution, run by a community of people.”

Main takeaways and suitability for Somerville

Somerville is not San Francisco, however Free Farm Stand is an outstanding program, run by dedicated people. How would such a program run in the different cultural environment of Somerville? Many people who take food from FFS do not give back by volunteering. If Groundwork Somerville were to get their volunteers to grow food to give away, it seems unlikely that many people would dedicate the amount of time and energy needed to grow food, without a guarantee that it was going to a good cause. It seems that the highest value for FFS is the gesture of giving and setting that example. Somerville’s gardeners do not produce a regular surplus, but when they do, giving it away may be a more powerful motivating force than earning a few dollars.

CASE STUDY CitySeed - Community Supported Market

Location New Haven, CT

Web www.cityseed.org

Information source Website

Overview

In order to guarantee sales and thus keep their farmers' markets profitable CitySeed sells boxes/bags of produce to area employees and low-income residents. The bags are filled with produce from three (rural) farmers at the market and delivered to office buildings and public housing sites.

Description

CitySeed's Community Supported Market (CSM) started as a way to ensure the continued operation of the Fair Haven market by providing farmers with a guaranteed income throughout the season, regardless of the weather on market day. The market is essential to the supply of healthy food for the low-income community, with many customers using food stamps and WIC. CitySeed began selling and delivering weekly, season shares of the market produce to employees of local businesses whose work schedules prohibited them from getting to the market.

With the future of the market more secure, CitySeed has been able to diversify its delivery customers by delivering subsidized shares of the market produce to residents of local housing authority, assisted living and hospital sites. These sites are in areas without a farmers market and are offered, through

the help of a grant, to Food Stamp and WIC customers for \$3 instead of \$12.

Main takeaways and suitability for Somerville

A community supported market (CSM) could be an interesting model for Somerville, offering the security of a CSA for farmers but more variety and consistency than a single farmer CSA for consumers. A CSM does not necessarily meet Groundwork Somerville's goal of improving land use in the City because, at least in this example, the growers are all farmers from outside the city. The traditional farmers produce substantially more than urban growers, but perhaps a combination of different types of growers could work for Somerville.

CASE STUDY Gardening Matters

Location Minneapolis, MN

Founded 2008

Web www.gardeningmatters.org

Information source Website and interview with director Kirsten Saylor

Overview

Officially launched in 2008, Gardening Matters is a gardeners' network connecting many gardeners and over 200 community gardens in the Twin Cities area of Minneapolis and Saint Paul through training, resources, and outreach via their listserve, newsletters, and website. Garden Matters advocates for gardeners through research and policies that promote urban agriculture.

Description

Gardening Matters can trace its roots back to 2004, when the Twin Cities Greening Coalition - a group of community gardening and greening programs based in Minneapolis and Saint Paul - partnered with The Green Institute to create the Twin Cities Community Garden Sustainability Plan. Among other recommendations, the plan encouraged the formation of a gardeners' network, resulting in Garden Works in 2005. Initially comprised of three organizations (The Green Institute, the Minnesota State Horticultural Society, and the Farm in the City), Garden Works separated from The Green Institute in 2008 and renamed itself Gardening Matters.

In tune with the promotion of gardener-supportive policy that launched Garden Matters, the network is unique for authoring such reports as *Community Gardens: A Study of Public Policies in Minneapolis and Hennepin County*, and *Supporting Community Gardens: Gardening Matters' Recommendations for Cities and Counties*. In addition to traditional information about gardening, the network also provides information about engaging in the local community with such fact sheets as *Engaging City Hall*, *Putting Community First*, and *Gaining Community Support*.

Main takeaways and suitability for Somerville

Garden Matters greatest achievement has been uniting disparate groups of gardeners and becoming a reliable source of information and resources for new and established gardeners. Thanks to Garden Matters, area growers now know information ranging from the legal rights behind protecting community gardens from development to how to manage toxic soils. Seeking nothing short of a shift in how to approach community gardening, Garden Matters tells growers to rely on the network for help sustaining, not just their own gardening interests, but also the community's. (interview)

CASE STUDY Gardening Matters

Likewise, Somerville can offer this kind of network as already strong gardener groups are in a position to coalesce and strengthen natural advantages in pursuit of united goals - namely increasing gardener resources, encouraging community participation, and easing city restrictions. Given the expressed interest of many Somerville elected officials in urban agriculture, a gardeners network of the Garden Matters variety could serve as a needed source of reliable information for policy makers.

CASE STUDY Providence, RI

Background and overview

In 2004 the Southside Community Land Trust initiated the Urban Agriculture Policy Task Force, a coalition of more than 30 farmers, policy-makers, community agencies and individuals.

“The Providence Urban Agriculture Task Force envisions doubling the amount of food being grown in and around Providence in the next ten years. This will be achieved by increasing the number of home gardeners, community gardeners, community gardens, commercial community agriculture projects, and urban agriculture businesses.”¹

One of the most significant steps taken by the Urban Agriculture Taskforce, was in 2006 to commission several reports assessing the current state of urban agriculture in Providence, the potential benefits and to outline significant barriers. The report, “Urban Agriculture: A new approach to development in Providence,”² estimates 1000 food gardens in Providence, which with 63,000 families equates to only 1.6% of families growing food, much less than other cities. The author suggests several reasons for this low number, including

the amount of land given over to industry, the population density at 10,000 people per square mile and the number of small lots with large trees and toxic soils. Somerville shares these common challenges with Providence, suggesting significant opportunity for comparison.

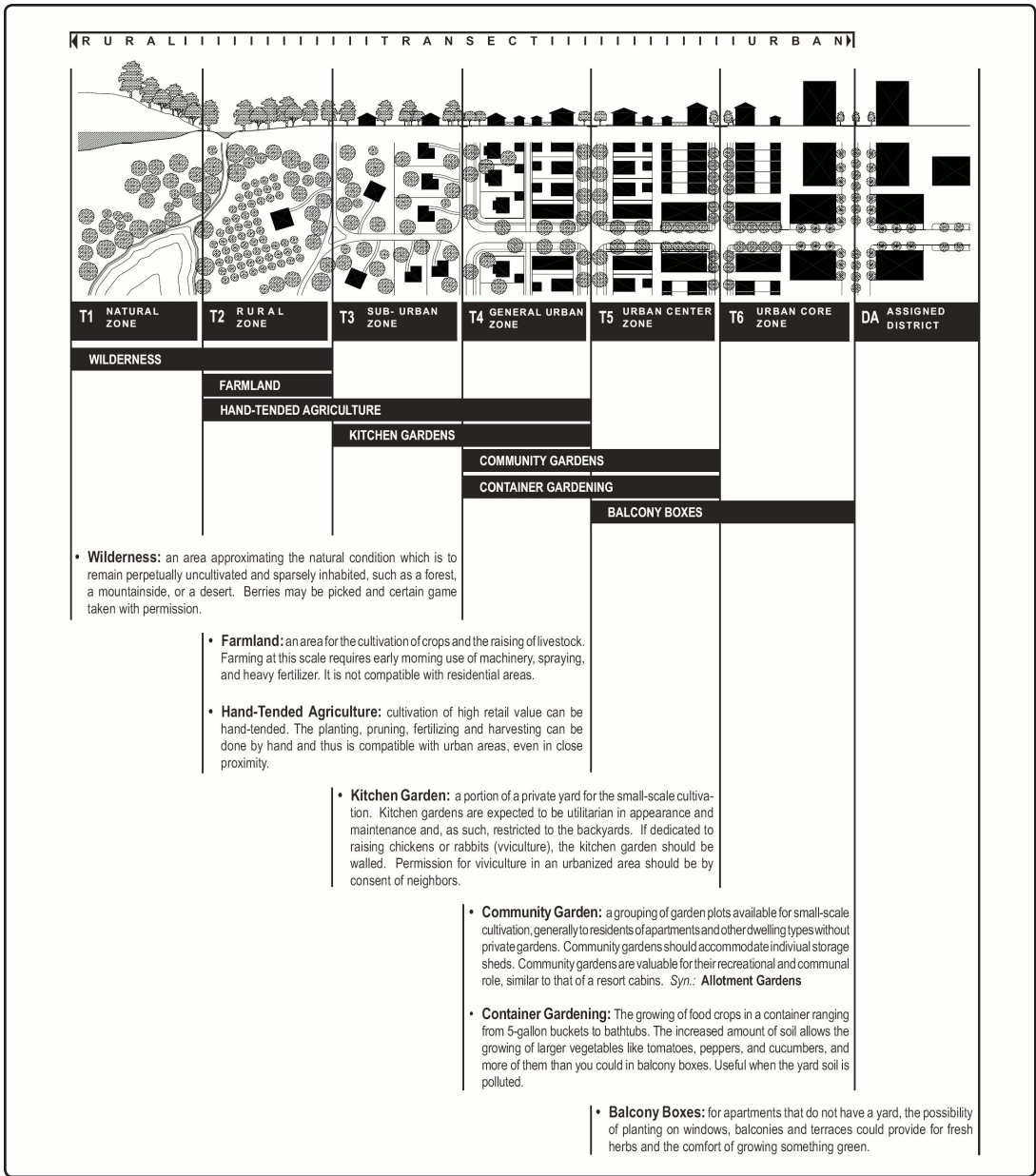
In “Planning for Appropriately Scaled Agriculture in Providence,” Benjamin Morton introduces the concept of Foodstuff Transects to the Providence urban agriculture discussion. The Foodstuff Transect (Figure 1) establishes the need for a variety of scales of agriculture to fit different urban spaces, just as certain forms of residential or retail development are suitable in different zones. In Providence this would require changes to Providence’s Comprehensive Plan and corresponding changes to the City’s Zoning Ordinance. Based upon the transect methodology the report determined that action to increase urban agriculture in Providence should focus on hand tended agriculture, such as City Farm (an existing $\frac{3}{4}$ acre certified organic farm in the city), community gardens, and backyard gardens.³

1 Farm Fresh Rhode Island, “Urban Agriculture Policy Taskforce,” http://www.farmfreshri.org/learn/urbanagriculture_providence.php#approach (accessed April 23, 2010).

2 Greg Gerritt, “Urban Agriculture: A new approach to development in Providence,” <http://www.farmfreshri.org/learn/docs/urbanag-approach.pdf> (accessed April 23, 2010).

3 Benjamin Morton, “Planning for Appropriately Scaled Agriculture in Providence,” <http://www.farmfreshri.org/learn/docs/urbanag-planning.pdf> (accessed April 23, 2010).

CASE STUDY Providence, RI



Note: Providence neighborhoods range from T4 to T6. Only a very small portion of the city would qualify as T6 – Urban Core and many neighborhoods such as that surrounding CityFarm would qualify as T4- General Urban.⁴

Among other problems, Morton shows that the 2006 Providence Comprehensive Plan did not recognize the diverse forms of Urban Agriculture and that the city's Zoning Ordinance did not address any aspect of urban agriculture. The following were strategies are recommended "to make Providence both a haven and a model for appropriately scaled urban agriculture;"

- Influence the Comprehensive Plan Update.
- Remove the Special Use Requirement for Community Gardens in the new Zoning Ordinance.
- Develop model regulations to allow for appropriately scaled Hand Tended Agriculture by a business.
- Repeal the overnight on-street parking ban.
- Spread the Transect based concept of agriculture.⁵

Figure 1: Foodstuff Transect (Source: Duany Plater-Zyberk & Company)

4 Ibid.

5 Ibid.

CASE STUDY Providence, RI

Urban agriculture in Providence has received support from the mayor and was included in the 2007 Comprehensive Plan and Zoning Ordinances. The language in the Comprehensive Plan under Objective SE2 – “Promote environmental sustainability and the stewardship of natural resources,” lists the following strategies:

E. Establish guidelines to promote appropriately-scaled, hand-tended agriculture, providing neighborhood access to healthy, affordable foodstuffs and promoting stewardship and remediation of land.

F. Expand community gardening opportunities on under-utilized land, including community gardens as a use on surplus City property through interagency and intergovernmental cooperation.⁶

Roberta Groch, Planner for East Providence Waterfront District and Board Member of the Southside Community Land Trust, feels that the main hurdle for urban agriculture in Providence is in acquiring lots in areas where people want to grow and ensuring long-term tenure of the land. Roberta also identifies lack of compost as a limiting factor, which is particularly challenging given the need for compost to

counteract tainted soils (compost has been shown to make lead less available for plants to uptake). The Director of Parks and Recreation, Bob McMahon has been a champion of bringing community gardens to existing parks. However the city has no single person to coordinate community garden programs and Southside do not have the staff capacity for such an undertaking. Growers throughout Providence are loosely organized through the Steward of Southside’s City Farm, but this work is done on a voluntary basis.⁷

Main takeaways and suitability for Somerville

Somerville is currently undertaking a comprehensive plan update. Groundwork should push for language that safeguards existing community gardens and provides the framework for more. Because of Somerville and Providence similarities, Providence’s recommended scales of agriculture would also be viable for Somerville, so attention should be given to hand tended agriculture, community and backyard gardens.

The Community Land Trust model seems to have worked well for Providence, with Southside holding a large number of community gardens. Finally, when working with urban soils, compost is a pre-requisite for safety as well as fertility. Any urban agriculture organization wishing to expand its work must have an expandable supply of affordable compost.

6 City of Providence Department of Development and Planning, “Providence Tomorrow: The Interim Comprehensive Plan,” http://www.providenceplanning.org/index.php?option=com_jdownloads&Itemid=64&task=viewcategory&catid=34 (accessed April 23, 2010).

7 Roberta Groch, personal e-mail to the author, April 6, 2010.

APPENDIX

Guide to Licensing



GUIDE TO LICENSING

How to legally sell your backyard-grown produce

On the following pages a variety of potential product/customer combinations are described, and the documents and licenses needed for each one detailed. The notes on what is needed for each license is written only once; if the license is repeated in a later option, you can look back to previous options for more detail. This information is complete, to the best of our knowledge, as of the date of production of this report. However, you should always contact the relevant authorities for the most up-to-date requirements before beginning an application process.

First, a few definitions:

FARM PRODUCTS/UNPROCESSED

- uncut fruits and vegetables
- fresh eggs
- unprocessed (non-boiled) honey
- maple syrup

NON-POTENTIALLY HAZARDOUS FOODS

- baked goods (cakes, cookies, breads, etc.)
- jams and jellies (an exception to the processes generally prohibited)
- confectionery items (boiled sweets, etc.)
- dehydrated fruits
- foods with a final pH ≤ 4.6 or water activity ≤ 0.85

REQUIRE STATE/FEDERAL CONTROL

- cheese/cream/custard-based or -filled products
- cider
- garlic in oil
- perishable foods/ foods that require temperature control
- any food that can support the growth of disease-causing bacteria

POTENTIALLY HAZARDOUS FOODS

- acidification (e.g. pickling)
- hot fill (except jams and jellies)
- thermal processing in hermetically-sealed containers (except jams and jellies)
- vacuum packing
- smoking

SO YOU WANT TO....

Sell your own farm products?

Go ahead!

Just a few things to do:

1

Check with the farmers' market for any requirements they may have, or with the Zoning Board if you want to set up a farm stand on your own property.

In Somerville, farm stands are allowed in high-density residential areas, business and commercial districts, industrial districts, and in the Assembly Square Mixed-Use District.

2

Wash your produce if you use pesticides.

The EPA sets pesticide residue tolerances, which are reiterated and enforced in Massachusetts under M.G.L. Ch. 94, § 186(2). It is a punishable offence to sell produce that exceeds the allowable amount of pesticide residue.

3

Get your measuring and weighing devices checked and sealed by the local Weights and Measures team (at the Department of Public Works in Somerville).

Under M.G.L. Ch. 98 § 27, all vendors must use sealed measuring devices, or be subject to a fine.



If you intend to keep bees, although you do not currently need a permit under Massachusetts state law, please be aware that you must register your hive(s) with the Massachusetts Department of Agriculture so that the Department can inspect the hive(s) annually. You must also comply with all the requirements set out in 330 CMR 8.

SO YOU WANT TO....

Sell your non-potentially hazardous food products directly to the consumer?

What you'll need:

1 **Certificate of Good Standing** from the City of Somerville Treasury Department.
This certifies that you are up to date on all city taxes, and is required to receive a vendor's license from the city.

2 **Residential Kitchen for Retail Sale license** from the City of Somerville Board of Health
(\$220 + \$330 "new business application fee")
Note that you will need to provide a list of products that you intend to produce with your application, along with standardized recipes from which you may not deviate. Additionally, only family members may assist in preparation, and the Somerville Board of Health may insist on family pets remaining outside the house at all times (not just when preparing the food).
Equipment, production & sanitation requirements (see particularly 105 CMR 590.009 (D)(2-3))
Product labeling requirements (see 105 CMR 520.000 – small producers are exempt from nutrition labeling requirements)

3 **Application for Home-Based Business** from the City of Somerville's Inspectional Services Division.

Chest x-ray

4 Submit results to City of Somerville Board of Health.
According to Somerville Code of Ordinances, Ch. 6, Section 23, anyone who deals with producing or handling food for public consumption has to have a chest x-ray within a month and once every three years thereafter.

SO YOU WANT TO....

Sell your non-potentially hazardous food products directly to the consumer?

5

Get your measuring and weighing devices inspected and sealed at the City of Somerville Weights and Measures department (nominal fee)

6

Sales Tax Registration Number/ Other Taxes

MA Department of Revenue; IRS

You will need to file as a new business, including applying for a Massachusetts Sales Tax Registration number. For full guidance on what exactly needs to be done, please see a business or financial advisor.

7

Vendor's license – either open air or transient from the City of Somerville City Clerk's Office (\$150)

This is required if you sell your products from one place outside your house, even just on your front porch or yard. If you intend to use a building or structure as your place of sales, you need a transient vendor license. Otherwise, you need an open-air license.

Requires business liability insurance naming the city as an “additional insured.”

Please note that residential kitchen products may only be sold in-state!

SO YOU WANT TO....

Sell your non-potentially hazardous food products to other businesses, such as restaurants?

This is called being a “wholesaler” and brings you under Massachusetts state jurisdiction, rather than just local jurisdiction.

What you’ll need:

1

Certificate of Good Standing from the City of Somerville Treasury Department.

2

Application for Initial Licensure for Food Processing

Massachusetts Department of Public Health (\$300)

You would select the option of “Wholesale from Residential Kitchen” under “Specific Activity,” and include, along with your product and recipe list, copies of all product labels (to ensure compliance with 105 CMR 520).

Adherence to 105 CMR 500 replaces the retail residential kitchen’s adherence to 105 CMR 590.

3

Application for Home-Based Business from the City of Somerville’s Inspectional Services Division.

4

Chest x-ray

Submit results to City of Somerville Board of Health.

According to Somerville Code of Ordinances, Ch. 6, Section 23, anyone who deals with producing or handling food for public consumption has to have a chest x-ray within a month and once every three years thereafter.

5

Get your measuring and weighing devices inspected and sealed at the City of Somerville Weights and Measures department (nominal fee)

SO YOU WANT TO....

Sell your non-potentially hazardous food products to other businesses, such as restaurants?

6

Register with the FDA online.

The Bioterrorism Act of 2002 requires that all food facilities that are not retail (direct-to-consumer) register with the FDA, even if the facility's products will not enter interstate commerce.

7

Sales Tax Registration Number/ Other Taxes

MA Department of Revenue; IRS

You will need to file as a new business, including applying for a Massachusetts Sales Tax Registration number. For full guidance on what exactly needs to be done, please see a business or financial advisor.

8

Vendor's license – hawker/peddler

Either from the City of Somerville City Clerk's Office (\$150) OR MA Division of Standards (\$62).

This is required if you travel to sell your products, as you likely will – traveling to different restaurants and stores to market and deliver your products.

Please note that residential kitchen products may only be sold in-state!

SO YOU WANT TO....

Sell potentially hazardous food products within the state?

Note: Retail is licensed at local level; Wholesale is licensed at state level.

What you'll need:

1

Certificate of Good Standing from the City of Somerville Treasury Department.

2

Operations license, either:

City of Somerville Board of Health (\$220 – \$550 depending on size + \$330 “new business application fee”)

Massachusetts Department of Public Health (\$300 – select “Food Manufacturing” under “Specific Activity”)

Please note that intent to produce PHF products will almost certainly need to file a Hazard Analysis and Critical Control Point (HACCP) plan along with their application. Those who wish to process foods by a federally-controlled method must also register with and file a scheduled process with the FDA. Please also note that wholesalers also need to register with the FDA.

3

Application for Home-Based Business from the City of Somerville’s Inspectional Services Division.

4

Chest x-ray

Submit results to City of Somerville Board of Health.

According to Somerville Code of Ordinances, Ch. 6, Section 23, anyone who deals with producing or handling food for public consumption has to have a chest x-ray within a month and once every three years thereafter.

5

Get your measuring and weighing devices inspected and sealed at the City of Somerville Weights and Measures department (nominal fee)

SO YOU WANT TO....

Sell your potentially hazardous food products within the state?

6

Sales Tax Registration Number/ Other Taxes

MA Department of Revenue; IRS

You will need to file as a new business, including applying for a Massachusetts Sales Tax Registration number. For full guidance on what exactly needs to be done, please see a business or financial advisor.

7

Vendor's license – hawker/peddler

Either from the City of Somerville City Clerk's Office (\$150) OR MA Division of Standards (\$62).

Please note that selling anything across state lines brings you under the full jurisdiction of the relevant federal agencies.

SO YOU WANT TO....

Sell any meat or poultry products?

This brings you under additional requirements in the state of Massachusetts, and could bring you under USDA scrutiny.

Retail food establishments are exempt from inspection under 9 CFR §§ 303.1(d) and 105 CMR 531.031(B) for meat products and 381.10(a) and 105 CMR 532.200-201 for poultry products, so long as they aren't doing the slaughtering or breaking bulk shipments of products for resale in smaller quantities.

The good news is that Massachusetts considers sales to restaurants to be “retail” as far as meat and poultry processing are concerned, so long as you don't go over a certain (large) amount sold to any one customer in a given week or month. It is only when you want to sell to grocery stores and other wholesale markets that you begin to get into very stringent requirements. Our recommendation is that you not pursue that route.

In addition to all of the steps outlined on previous pages, retail establishments must:

Meet all the requirements of 105 CMR 530: Sanitation in Meat and Poultry Processing Establishments.

Complete an Application for Initial Licensure to Process Meat and Poultry (MA Department of Public Health (\$225)).

SO YOU WANT TO....

Slaughter your own meat or poultry products?

Not recommended. This would bring the full weight of the USDA and the equivalent Massachusetts departments on you, as well as adding all the requirements in the Federal Meat Inspection Act, the Poultry Products Inspection Act, the Humane Methods of Livestock Slaughter, 105 CMR 531 and 105 CMR 532. Additionally, slaughtering and rendering facility applications are subject to public notice periods under Somerville Code of Ordinances Article 1, Section 8-1.

APPENDIX Food Processing Laws



LAWS, REGULATIONS, AND WHAT THEY COVER

Where to look for guidance on processing and selling your garden produce

Please keep in mind that federal regulations and laws usually are concerned with interstate commerce. Therefore, the regulations and laws applicable to small in-state producers are usually reproduced at the state and local level, with reference given to the governing federal documents. For example, the Massachusetts Department of Food and Agriculture's 330 CMR 6.04, which sets the official grades for apples, states that, "[the] Department adopts the United States Standards for Apples, established by the United States Department of Agriculture at 7 CFR 51.300 et seq., as amended, as the 'Massachusetts Grades of Apples'." The federal regulations and laws listed below are included for the sake of list completeness more than anything else.

M.G.L. = Massachusetts General Laws

CMR = Code of Massachusetts Regulations

CFR = Code of Federal Regulations

FDCA = Food, Drug & Cosmetics Act

FDA = Food and Drug Administration

USDA = United States Department of Agriculture

CDC = Centers for Disease Control

GETTING STARTED

Somerville

City Clerk's office – vendor and food establishment license applications

Planning Division – zoning ordinances and applications

Massachusetts

330 CMR 18 – Land use (including community gardens)

Tax Registration

MA Department of Revenue

Internal Revenue Service

LAWS, REGULATIONS, AND WHAT THEY COVER

Unprocessed Foods

UNPROCESSED FOODS WEIGHTS & MEASURES

Somerville

Code of Ordinances, Ch. 8 – Licenses and permits

Note that there is no particular ordinance solely for weights and measures, but every vendor license option requires that the applicant have their weighing\ measuring devices tested and sealed before they can receive a license.

Massachusetts

M.G.L. Ch. 98

Particularly § 27, which provides for a fine if an unsealed weighing device is used for sales.

UNPROCESSED FOODS STANDARDS OF QUALITY

Massachusetts

M.G.L. Ch. 94, §§ 96 - 117L – Fruits, vegetable, nuts, apples, cranberries, farm products & potatoes

M.G.L. Ch. 94, §§ 89 - 92A – Eggs

M.G.L. Ch. 94, § 152A & B – Live poultry

M.G.L. Ch. 128, §§ 32 – 36B – Bees and honey

330 CMR 5 – Poultry (including egg quality standards)

330 CMR 6 – Seeds, apples, potatoes

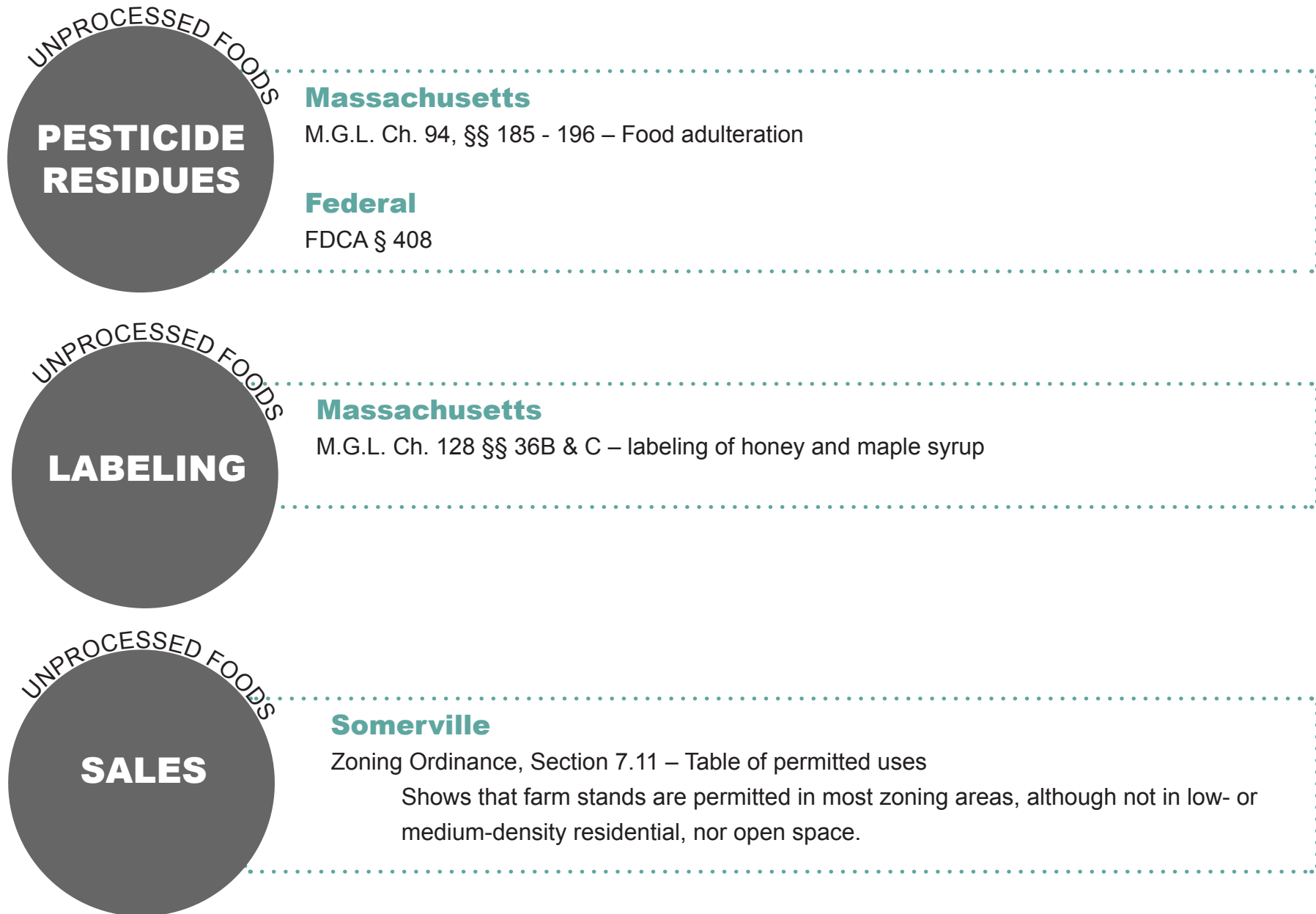
330 CMR 8 – Apiary inspection

Federal

7 CFR 51 – Fresh fruits, vegetables, and other products

LAWS, REGULATIONS, AND WHAT THEY COVER

Unprocessed Foods



LAWS, REGULATIONS, AND WHAT THEY COVER

Processed Foods



Massachusetts

M.G.L. Ch. 94, §§ 304 – 306

Federal

21 CFR 100 – 189



Massachusetts

105 CMR 520.000 (does not include nutrition labeling)

Federal

Please note that nutrition labeling is not mandatory for fresh produce, products of a small business, or bakery foods.

9 CFR 317 – Meat labeling (USDA)

9 CFR 381 – Poultry labeling (USDA)

21 CFR 101 – FDA labeling

FDCA § 403 – Misbranded food & nutrition labeling

Fair Packaging and Labeling Act of 1966

LAWS, REGULATIONS, AND WHAT THEY COVER

Processed Foods



LAWS, REGULATIONS, AND WHAT THEY COVER

Processed Foods



Somerville

Code of Ordinances, Article II, Sec. 6-23 – X-ray exams for those handling food

Code of Ordinances, Article I, Sec. 8-4 – Slaughtering and rendering licenses

Massachusetts

105 CMR 500.000 – Good manufacturing processes

105 CMR 510.200 – Standards of identity: fruit butter, jellies, jams, preserves

105 CMR 530.000 – Sanitation in meat/poultry processing establishments

105 CMR 531.000 – Inspection of meat slaughtering and processing

105 CMR 532.000 – Inspection of poultry and poultry products

105 CMR 590.000 – Sanitation (“Chapter X”)

M.G.L. Ch. 94, §§ 2 – 10 – Bakeries and baking products

M.G.L. Ch. 94, §§ 118 – 139G – Slaughterhouses

M.G.L. Ch. 94, §§ 142 – 153A – Sale of sausages and meat

M.G.L. Ch. 94, §§ 185 – 196 – Food adulteration and misbranding

M.G.L. Ch. 94, § 305B – Medical examination for food handlers

M.G.L. Ch. 94, § 305C – Food processor for wholesale licensing

LAWS, REGULATIONS, AND WHAT THEY COVER

Processed Foods

PROCESSED FOODS

**CREATION
(CONT'D)**

Federal

9 CFR 300 – 590 – USDA Food Safety and Inspection Service (FSIS)

Especially:

303.1(d) – exemption: retail food establishments (meat processing)

317 – nutrition labeling for meat products

381.10(a) – exemption: retail food establishments (poultry processing)

590 – Egg Products Inspection Act (includes exemption: poultry producer retail egg sales)

Meat Inspection Act

21 CFR 110.00 – Good manufacturing processes

21 CFR 113.00 – Thermally processed low-acid foods

21 CFR 114.00 – Acidified foods

21 CFR 120.00 – Hazard Analysis and Critical Control Point (HACCP) systems

(only for potentially hazardous food producers)

21 CFR 130.00 – 169.00 – Food standards

FDCA § 401 – Food standards

FDCA § 402 – Food adulteration

Most recent Food Code

A joint product of the FDA, USDA and CDC, the Food Code is a guidance document only – it is not legally binding; however, the 1999 Food Code has been adopted by the state of Massachusetts as the basis for M.G.L. Ch. 94

APPENDIX Starting a Garden



STARTING A GARDEN IN SOMERVILLE

Who, What, When, Where, Why and How

WHEN?

To start planting. New England's climate is unpredictable. Many plants can be started indoors as early as March. Place seeded trays in a warm, sunny area, and then transfer the sprouted plants outside when the threat of frost has past. It is safe to plant directly into the ground after mid to late April. Contact area garden groups or growing centers for help with these issues.

WHAT?

To plant. Many species thrive in Somerville despite New England's short growing season. Plant a variety of vegetables that will yield throughout the growing season and at different times (enjoy your radishes while you wait for your tomatoes!). The Grow Native Cambridge website is a great resource for information about native flowers that will attract pollinators to your garden and increase biodiversity. Earthworks Boston and the Massachusetts Master Gardeners Association, Inc. also offer information about what to plant in New England.

In the backyard. Test the soil (contact UMass Extension), make sure the space gets enough sunlight (at least 5 hours a day), and has close access to water.

On the property of an institution or business. Contact Groundwork Somerville for help choosing a space or Top Sprouts, a local business that installs and maintains rooftop greenhouses.

In containers. Make sure containers have drainage holes and that your location will support their full weight. You can buy containers from any hardware store. Contact GreenCity Growers for information about recycled containers. Freecycle and Craigslist are reliable online sources. Agripods is a local company that provides pre-seeded containers for rent.

WHERE?

In a community garden. Get on the waiting list. Contact Jim Boyd at the Somerville Conservation Commission.

In somebody else's garden or yard. Sign up for Beantown Beanshare, or contact the Somerville Garden Club or the Growing Center. They will help partner you with someone looking to have their established garden tended or connect you with someone who has open land.

To get seeds. Garden centers, farmers' markets, neighborhood swaps like the Laurel Street Trading post, or the Somerville Garden Club's monthly meetings are great places to acquire unique seed varieties. For ethnic seeds contact the New Entry Sustainable Farming Project. For transplants, contact Re-Vision Urban Farm. They offer a huge selection from which to pre-order at the beginning of the season. See the who section for more seed and plant sources.



STARTING A GARDEN IN SOMERVILLE

Who, What, When, Where, Why and How

To build raised beds. Raised beds are a solution to high lead levels. A number of organizations can help build them or provide the materials. Contact Somerville Climate Action, Tufts GREW, or Green City Growers.

HOW?

To compost on your own property. The city of Somerville provides compost bins for only \$40. For questions about composting with worms, contact the Urban Homesteaders League.

To deal with pests and weeds. Natural and chemical options exist for dealing with pests and weeds. Contact Boston Natural Areas Network for help preventing pests and weeds and for advice on what to do if they arrive.

To test your soil. The UMass Extension School can test your soil for lead levels and determine the acidity. This information will help you decide what plants will thrive in your soil and if you need to improve your soil quality.

Seed Sources

Fedco Co-op Garden Supply.

www.fedcoseeds.com. (207) 873-7333

Laurel Street Trading Post.

www.laurelstreettradingpost.org **Mahoney's**

Garden Center.

www.mahoneysgarden.com.

(617) 787-8885

Ricky's Flower Market.

www.rickysflowermarket.com.

(617) 628-7569

New Entry Sustainable

Farming Project. www.nesfp.nutrition.tufts.edu. (978) 654-6745

Pemberton Farms.

www.pembertonfarms.com.

(617) 491-2244

Seed Savers' Exchange.

www.seedsavers.org. (563) 382-5990

Re-Vision Urban Farm.

www.vpi.org/Re-VisionFarm/index.html

(617) 822-3276

Information and Tips

Boston Natural Areas Network.

www.bostonnatural.org. (617) 542-7696

Earthworks Boston.

www.earthworksboston.org (617) 442-1059

Groundwork Somerville.

www.groundworksomerville.org.

(617) 628-9988

The Growing Center.

www.thegrowingcenter.org. (617) 666-2969

Massachusetts Master Gardeners

Assoc. www.massmastergardeners.org.

(617) 933 4929

Somerville Climate Action.

www.somervilleclimateaction.org

Somerville Garden Club.

www.somervillegardenclub.org

UMass Extension.

www.umass.edu/plsoils/soiltest

(413) 545-2311

Urban Homesteaders League.

www.urbanhomesteadersleague.org

Garden & Compost Supplies

Agripods.

www.agripods.org. (781) 910-9697

Craigslist. <http://boston.craigslist.org>

Freecycle. www.freecycle.org

Green City Growers.

www.growmycitygreen.com. (617) 776-1400

Top Sprouts.

www.topsprouts.com. (617) 909-5360

City of Somerville.

www.somervillema.gov. (617) 625-6600

Garden Away From Home

Beantown Beanshare.

www.beantownbeanshare.com

Somerville Conservation Commission.

www.somervillema.gov/Department.cfm?orgunit=CONSBD.

(617) 201-1680

Tufts GREW.

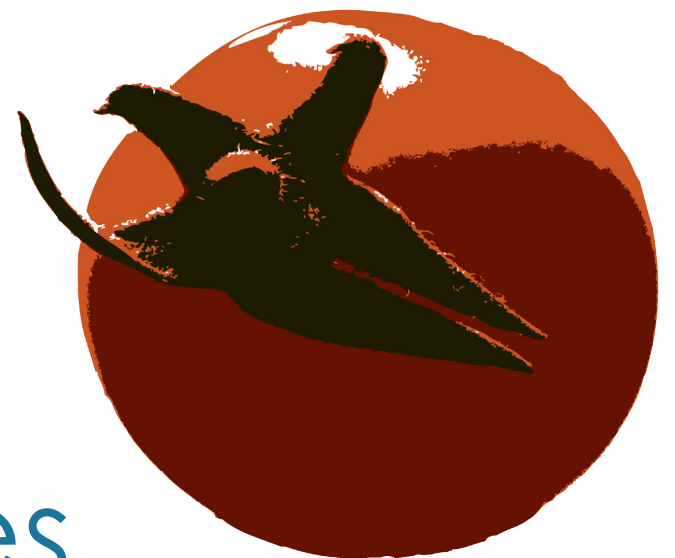
www.go.tufts.edu/foodplanning

WHO?

WHY?

Because gardening is great! In case you need more reasons, groups like Somerville Climate Action, Groundwork Somerville, and the Urban Homesteaders League have great websites that highlight urban gardening's potential for sustaining a better environment, community, and lifestyle.

APPENDIX Growing Techniques



CREATIVE & INTENSIVE GROWING TECHNIQUES

How to Grow A Lot In A Small Space

SQUARE FOOT GARDENING

Square Foot gardening is a method created by Mel Bartholomew in which a grid of 1 foot x 1 foot squares is placed over a raised bed. Specific planting recommendations state how many plants can grow in each grid square to maximize space without compromising the amount of light and nutrients available to each plant. Raised beds cut down on the amount of digging required, and it is possible to import new soil instead of spending years building up the soil's fertility. For more on square foot gardening check out [Square Foot Gardening](#) by Mel Bartholomew.

BIOINTENSIVE GARDENING

The Biointensive method was inspired by the French Intensive techniques practiced in the 18th century outside of Paris. It stresses soil fertility above all else, and encourages double-digging beds, compost application, and planting in mounds to take advantage of vertical space. This method encourages the production of vegetable crops, calorie crops, cover crops and compost crops to not only feed the gardener, but also feed the soil. For more on Biointensive gardening check out [How to Grow More Vegetables \(Than You Ever Thought Possible On Less Space Land Than You Imagined\)](#) by John Jeavons.

SUCCESSION PLANTING

Young transplants should be ready to replace harvested plants to minimize the amount of unplanted space. Quick maturing plants like arugula and spinach are planted next to slower maturing plants like tomatoes and squash. These plants need a lot of space later in the season, but earlier on can be intercropped with other plants. This method requires a lot of knowledge about plant growth and maturity to ensure that it is successful. For more on succession planting check out [The Postage Stamp Garden Book](#) by Duane Newcomb.

INTENSIVE GARDENING TECHNIQUES

AQUAPONICS AND ANIMAL POLYCULTURE

By integrating animals in to backyard gardens it is possible to increase yields. Fish, chickens and rabbits can all be raised in conjunction with vegetables to the mutual benefit of each system. Plants provide food and air to the animals, and absorb excess animal waste as fertilizer. For more on aquaponics check out [Sustainable Freshwater Aquacultures: The Complete Guide from Backyard to Investor](#) by Nick Romanowski.

COMPANION PLANTING

Some plants benefit from growing near each other. For instance, planting bush beans with potatoes protects the potato plant from potato beetle infestations. The scent, secretions or physical properties of certain plants act as natural support for other plants and enables a higher yield. Some plants inhibit each other, such as onions and peas, and should be planted in separate areas. For more on companion planting check out [Carrots Love Tomatoes](#) by Louise Riotte.

PERMACULTURE

Permaculture – or permanent agriculture – is a movement to create a food forest. This practice encourages a permanent polyculture of fruits and vegetables. Several layers of plants are “stacked” in the same area. From tree canopy to root zone, every inch of the garden is used productively, including vertical space. Plants are cultivated not only for their fruit and vegetable bearing capacity, however, but also for their ability to attract pollinators, add to soil fertility and deter pests. The goal is to minimize the amount of work a gardener must put in to the system while still maximizing benefits from the land. For more on permaculture check out [Permaculture: A Designers Manual](#) by Bill Mollison.

CREATIVE & INTENSIVE GROWING TECHNIQUES

How to Grow A Lot In A Small Space

INDOOR GARDENING

Several varieties of mushrooms can be grown from micorrhizae indoors with little to no light. Many can be grown in underutilized broom closets or a basement corner as long as they are kept at the proper moisture level. For more on mushroom cultivation check out Growing Gourmet and Medicinal Mushrooms by Paul Stamets. Sprouts can be grown from a variety of seeds inside jars and do not need much light. Microgreens only need a minimal amount of light to reach an appropriate size. Gardeners can enjoy a steady supply of sprouts and microgreens year-round by staggering their seed starting. For more on sprouts and microgreens check out Fresh Food from Small Spaces: The Square-Inch Gardener's Guide to Year-Round Growing, Fermenting, and Sprouting by R.J. Rupenthal.

CONTAINER GARDENS

For the apartment dweller, a small balcony or sunny window is often the only available location to grow plants. Containers and window boxes are the answer for these residents. A single window can contain many levels of plants, increasing the amount of productive space. Hanging containers are excellent for vine plants like tomatoes and cucumbers. For more on container gardens check out Kitchen Harvest: Growing Organic Fruit, Vegetables & Herbs in Containers by Susan Berry.

ROOFTOP GARDENS

Many homes in Somerville have pitched roofs, but garages, commercial and industrial buildings offer acres of underutilized resources. New England buildings are generally structurally sound enough to hold the weight of both soil and plants, but if buildings are found to be lacking, hydroponic production is also an option. Bees are particularly well-suited for rooftop gardens because, above the city, they escape notice from many urban dwellers. For more on rooftop gardens check out Use Your Roof Guidebook by Bay Localize.

CREATIVE GROWING PRACTICES

FOOD NOT LAWN

There is a growing movement to replace grass lawns with vegetable gardens. Vegetable gardens can be attractive components of a home's landscape. If homeowners do not want to remove the front lawn entirely, vegetables can also be planted in the place of decorative borders. For more on converting lawns to vegetable gardens check out Food Not Lawns by Heather C. Flores.

SEASON EXTENDERS

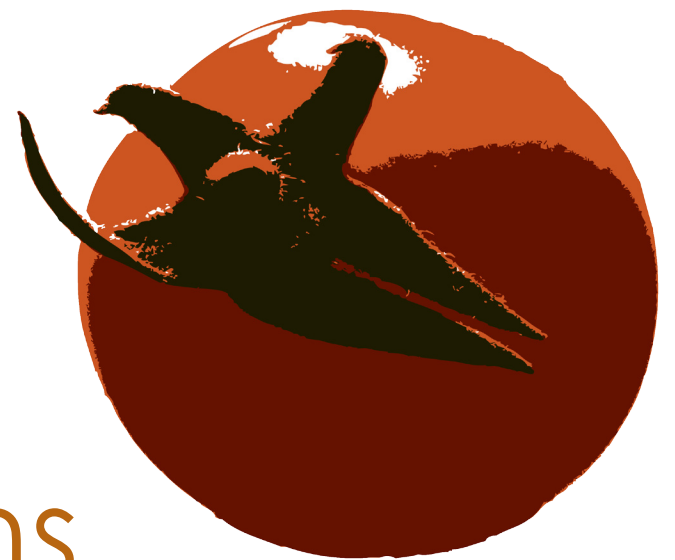
Hoop houses and row cover can be installed in garden plots to extend the growing season earlier in the spring and farther into the fall and winter. For the highly motivated homeowner, greenhouses or sunrooms can be added to south facing walls to make growing spaces available all year round. With enough light, all sorts of vegetables can be grown year-round inside. For more on season extenders check out The Winter Harvest Handbook by Eliot Coleman.

VERTICAL GARDENS

Even though there is not much available land within Somerville, there is still plenty of vertical space that can be used for gardening. Vining plants like grapes, melons and cucumbers can be trained to climb trellises and fences instead of allowing them to sprawl across the ground. This allows vines to be planted in small spaces, and potentially frees up space for more vegetables. Non-vining plants can be planted in containers attached to walls. There are several options for wall-planters currently available on the market, or gardeners can craft their own. For more on vertical gardens, check out The Vertical Garden: From Nature to the City by Patrick Blanc.

APPENDIX

Community Kitchens



WHAT IS A COMMUNITY KITCHEN?

Community kitchens are commercial food processing facilities equipped with heavy-duty kitchen appliances and accessories that are shared by a variety of people. Often, community kitchens are operated by a single non-profit or single manager and open to specific users who utilize the equipment, space, and storage facilities to operate a retail food business or create a value added product (VAP). Typical VAPs include jam, hot sauce, tea and salsa. Food processing facilities are important to farmers and gardeners as they allow growers to capture more of the “food dollar” – the amount that consumers pay for food; the share farmers receive of this food dollar has been declining over the past decades – from 46 cents in 1913 to 20 cents in 2010.¹ Farmers are able to take advantage of higher prices paid for “processed” food by simply cleaning, sorting and packaging produce, or by adding even more value through additional processing such as cooking, combining, drying, labeling, and distributing. Community kitchens are also commonly utilized by catering companies or mobile food vendors as a storage and prep facility. Some community kitchens are used by cattle and poultry farmers to process their meats, or apple farmers to process their produce into cider or other apple-related goods. Shared-use food processing centers operate at a variety of scales and for a variety of purposes, including:

Regional value-added food processing centers and kitchen incubators

- large facilities (5,000 to 10,000 square feet to provide adequate production and storage space)
- provide a wide range of advanced equipment for value-added food processing and catering
- programs for technical assistance, training and access to capital to guide entrepreneurs to becoming successful businesses

Shared-use agricultural processing facilities

- designed for use by farmers
- set up for collective grading, processing and packaging of farm produce, meat, or other commodities
- require the similar levels of institutional capacity as regional facilities

Shared-use community kitchens

- small (have less than 3,000 square feet of production and storage space)
- provide limited cooking and value-adding food processing space (only one or two users at a given time)
- often serve a community development purpose in addition to providing entrepreneurial opportunity
- often limited in their capacity to provide a full range of business incubation services

¹ Kristin Markley and Duncan Hilchey, “Adding Value for Sustainability,” <http://books.google.com/books?id=dJTNKY5wfd8C&printsec=frontcover#v=onepage&q=&f=false> (accessed February 14, 2010).

National Farmer’s Union. “Farmer’s Share,” <http://nfu.org/issues/agriculture-programs/resources/farmers-share> (Accessed April 23, 2010).

- generally serve a local, not regional, community
- generally housed at existing community centers (shared staff)
- are less expensive than larger food processing centers (usually costing less than \$300,000 to implement)

This report will focus on shared-use community kitchens and kitchen incubators, which are the most appropriate scale for Somerville.

The Economic Role of Community Kitchens: New Food Business Incubators

Community Kitchens often act as incubators for new food-related businesses to rent space for a nominal fee to test out new products and processes. Successful incubators can be a catalyst for job creation, income generation and economic development within a community. However, incubator projects require high levels of oversight in order to succeed; CK staff must lead first-time food processes through legal requirements and food safety regulations, developing marketing and business plans and assist in access to capital. They are “most successful when located near large population centers that provide both markets for products and a large pool of aspiring food entrepreneurs.”² In addition to providing business and product advice, CKs often provide additional support services such as office space, conference rooms, computer access, copier and printer access, secretarial and phone answering services and management guidance and mentoring.

Using “Local” Foods in Community Kitchens

Due the short growing season of most New England produce, community kitchens in Massachusetts (and most other states) use a mix of produce sources – local and global - especially depending on the time of year and the nature of their products. Nuestras Raices’s community kitchen utilizes a mix of locally grown produce and globally sourced items. Franklin CDC’s Food Processing Center has users that make products year-round and regularly purchase food from wholesalers as well as users that make large batches of products once or twice a year when their products are in season and locally available. Community kitchens could also serve primarily as a staging ground for washing and packing fresh, seasonal, local produce, instead of a processing facility. However, certified kitchens are not required for simply washing produce for market, although many retailers may perceive a food safety advantage when purchasing produce that has been handled in a certified environment. While not necessary for garden to market distribution schemes, a single facility may assist farmers or backyard growers (in Somerville) by providing a storage place to bring their produce before distribution at markets.

² Smithson Mills and Cameron Wold. “Developing Shared Use Food and Agricultural Facilities in North Carolina”, <http://www.smithsonmills.com/ncshareduse.pdf>, (2007): 5.

CHALLENGES OF COMMUNITY KITCHENS

They require substantial capital resource investment and community involvement.

Capital resources include investment in a new facility or facility remodel, equipment, staff oversight, and ongoing entrepreneurial development and lending. Community involvement and outreach is required to interest and support potential users. Community outreach from the inception of the project is crucial, but it is important to remember that “potential users identified to utilize a kitchen will not necessarily be there when the facility opens, and a strong initial community interest is important to insure that some group of potential users is willing and waiting when the facility finally does open.”³ The development of a community kitchen can take two or more years – from the initial design plans, to construction, to renting, and finally developing a consistent group of renters that contribute to the budget.

State, federal and private foundation resources are limited.

New kitchen spaces generally require substantial funding to start and continued funding to maintain equipment and pay staff salaries (especially in cases where staff are not shared by another organization). Unless the kitchen is very large or serving a mostly middle to high income clientele, it may require consistent funding over its duration.

Demand from needy business owners could dilute attention to viable projects.

It is important that entrepreneurs develop their own skills and do not become dependent on the skills and services of the kitchen management.

Starting a shared kitchen is (relatively) easy, keeping the kitchen in operation is challenging.

Shared kitchens require excellent management, enough tenants to share the costs, and a continued connection to the community (the source for new businesses and consumers for the kitchen's products).

³ Ibid., 26.

FEATURES OF SUCCESSFUL COMMUNITY KITCHENS

Stack your steering committee.

Find members who are diverse, detail oriented, and politically savvy (as you will most likely need grant funding to establish the facility). The steering committee will need to hold the original vision and goals tightly and ensure that the kitchen does not deviate from the mission.⁴

Allow for substantial storage for tenants.

- Most facilities have underestimated the amount of storage space their tenants will require, which is an important miscalculation that limits potential growth and income. Be sure to account for federal regulations that require separate storage and preparation facilities and to do your best to anticipate what type of storage potential tenants will need (dry, cooler, freezer).
- Kitchen incubators need to be of sufficient size to accommodate more than one user at a time, or otherwise need to be integrated into existing projects to be viable.⁵
- In order to develop a consistent and adequate revenue stream, you may need to allow for simultaneous, multiple occupancy in the facility up to 24 hours a day, or else be integrated into an existing facility where utility and maintenance costs can be shared between multiple users.

Tailor your kitchen to your community.

Every community is unique. To be successful in your community, consider the most viable entrepreneurial and consumer sectors already existing and think about how you can service them.⁶

Reach out to the community for support and to identify potential renters.

To thrive, kitchens require the support of the communities that they benefit. Good incubators and kitchen identify community resources and tap them for funding, outreach and support. You and your vendors may even offer specialty cooking classes to community members as a way to engage non-business owners or generate additional revenue for the project.

4 "Pennsylvania Shared-kitchen Incubator Feasibility Study", http://www.penntap.psu.edu/documents/PA_KKIFS-Survey.pdf (accessed March 18,2010).

5 Mills and Wold, 2007.

6 The Grange Kitchen, http://dartmouthgrange.org/about_kitchen.html (accessed March 18, 2010).

Consider alternative uses.

Kitchens are primarily food production venues, but they could, for example, also feature an on-site meeting-room facility where meetings can be catered. The Grange Kitchen in Dartmouth, MA⁷ has a variety of foods, products, and fundraising options, including:

- Making shelf-stable foods – foods packed in jars that need no refrigeration until opened
- Making baked goods – pies, cakes, cookies, pet treats, etc.
- Making dry mixes, seasonings, spiced nuts, etc.
- Making organic cleaning products
- Assembling meals, side dishes, sandwiches, etc. for construction sites, catering events
- Preparing food to sell at farmers' markets, such as washed and bagged greens
- Catered events – bridal showers, birthday parties, dances, dinner theater, etc.
- Making gifts or party favors for holidays and/or special occasions

Implement food and agricultural entrepreneurship programs.

Rather than merely being a landlord, managers must play an active role in helping their tenants succeed either directly or through community linkages. Managers can provide training, access to appropriate capital and technical assistance in recipe development.

Employ accurate scheduling to ensure adequate access to equipment for all users.

Tenant synergy is very important: many facilities supported tenant associations, cooperatives and other flexible networks of those producing products at the kitchen. Tenants can pool their individual purchasing and marketing power, as well as purchasing shared liability insurance. One kitchen uses an online scheduler that tenants can sign in to remotely to reserve kitchen time and equipment.

Offer additional amenities that assist businesses.

- Supporting services can include office space, conference rooms, computer and projector access, a business resource library, shipping and receiving docks, freight elevators, security systems, 24-hour access, copier and printer access, secretarial and phone answering services and management guidance and mentoring.

⁷ Ibid.

- Involve regulatory agencies early on in the planning process.
- Regulations may prevent multiple vendors from using the facility at the same time unless certain facility requirements are met; it is crucial to understand the regulations in order to make the most out of your facility.

Develop “Anchor Tenants.”

Anchor tenants will consistently rent a high amount of kitchen time (often at discounted rates) and develop into a sustained source of revenue for the facility. Facilities most often report one or two anchor tenants that individually can rent anywhere from 15 to 150 hours per month.⁸

OTHER DETAILS

Legal Status

Community Kitchens usually incorporate as a nonprofit organization. Many may use cooperative buying and selling arrangements, but do not identify as a legal cooperative. Users need to comply with all local, state, and national regulations and gain permits from relevant health authorities at those levels.

Marketing

One key to attracting paying renters is proper management that can run the facility with for-profit product development and marketing techniques.

Examples of innovative marketing techniques include:

Radio and TV promotional effort

Product fairs/”marketplace” to showcase their products

List of vendors on the kitchen’s website

Training

Managers typically provide some guidance to new food entrepreneurs. Common class topics include:

- How to Run a Food Business
- Food Safety
- Price Your Product Right

⁸ Mills and Wold, 2007.

Cost Structures

Traditional fee structures are set as fees per kitchen hour reserved, prorated for higher users. Some kitchens may set varied fees based on percent of sales from the user, the type of product they will produce (and the amount of utilizes they may draw in producing their product) or units produced. Some kitchens charge for space rental if tenants require long-term storage of goods or an annual membership fee.

Many facilities subsidize their tenant rates to be below market rate, but this can affect the operation's ability to operate without grants. Experts caution that it is important to start with a fee structure that will be sustainable and close to market rate because it is hard to change your structure after you are open. In one case, an hourly rental rate approaching \$20 was important in developing a revenue base for self-sufficiency.

RATES The Kitchen Space

Location: Austin, TX

Hours per week	Peak Hours (Rate per hour)	Off-peak (Rate per hour)
1-4	\$25	\$17
5-12	\$22	\$15
13-20	\$20	\$12
21-40	\$17	\$9
40+	\$14	\$7

(Source: The Kitchen Space, www.thekitchenspace.com)

FEE STRUCTURE Franklin Food Processing Center

Location: Greenfield, MA

Monthly Membership Dues: \$50.00

Hourly Production: All Operations \$38.00

Monthly Dry Storage: Pallet or Small Cage \$35.00
Large Secure Cage \$45.00

Weekly Cold Storage: Linear Foot \$8.00,
Rolling Rack \$16.00
Pallet \$24.00

Annual Membership Dues: \$600.00 per year, with a monthly billing option.

(Source: Franklin County CDC, <http://www.fccdc.org/>)

Facility Specifications and Equipment

Wet product preparation area for sauces, jellies, salsa, pesto.

For bottlers, caterers, personal chefs, and mobile food cart vendors preparing food for immediate consumption.

Dry product preparation area for baked goods, herbs, teas or trail mixes, dehydration.

For bakers and caterers in the preparation and packaging of goods.

Natural products production area for drying, crushing and extraction of herb and plant materials

Portable equipment allows flexibility in utilizing the space so that multiple users can set up production lines in different areas of the facility.

EXAMPLE EQUIPMENT AND FACILITY FEATURES

Steam Kettles	Meat Slicer	Large capacity mixers, choppers, shredders
Commercial convection and conventional ovens and range	Apple Peeler/Slicer/Corer	Dry, cold and frozen storage
Roll-In Rack Oven	Dicer/Slicer for Fruits & Vegetables	Shipping & receiving area w/loading dock
Convection Ovens	Refrigeration and Freezers	24-hour secure access
Grill	Bottlers/Fillers	Vegetable wash and prep areas
Food Processor	Labeler	Complete sanitation program and equipment
Vertical Cutter-Mixer	Heat Band Sealer	Shared office space and equipment
Commercial Mixers	Stainless Steel Tables	
Tilt Skillet/Braiser	Microwave	
Dehydrator	Vacuum Sealer	
Juicer/Pulper	Weigh-Fill Packaging Machine	
	25-gallon tilting skillet	

Kitchen Facility Certification

National regulations

Food and Drug Administration approval

- allows the production of most non-meat and non-dairy products
- considerably easier to obtain (than USDA approval)
- FDA regulations (often combined with further state, county or city regulations) are far less onerous than USDA certification

USDA approval

- non-slaughter processing, which allows a facility to prepare such items as pot pies, enchiladas and other meat products that contain meat originating from a USDA-certified source
- slaughter processing requires compliance with numerous USDA regulations
- the USDA certification supersedes FDA requirements and the USDA is the primary agency for inspection of the facility
- requires the facility to have separate areas (individual sub-kitchens) and precludes multiple users in a large, open processing area

Key considerations

USDA/FDA requirements specify that no other enterprise can share kitchen at the same time that a meat or dairy product is being processed. This would mean that the total cost of operating the kitchen for a meat or dairy product would be borne by that single producer, rather than divided among several tenants and makes operation of the facility considerably more expensive. Because of this requirement, most facilities do not pursue USDA certification.⁹

Local

Both the facility and each of its users must be licensed as food establishments. Neither the facility nor the users can be licensed under the “residential kitchen” option, since the facility will not be operated solely by family members and the users will not be working within their own residences.

For retail production within the City of Somerville, both the facility and each user will need to obtain a retail food permit based on square footage of the establishment. This is available from the Somerville Board of Health. Additionally, the requirements for new business permits, the sealing of scales, the vendor’s permits, chest x-rays and sales tax and registration numbers all must be met

⁹ “Pennsylvania Shared-kitchen Incubator Feasibility Study”, http://www.penntap.psu.edu/documents/PA_KKIFS-Survey.pdf (accessed March 18,2010).

by the appropriate party.

If wholesale production within the City of Somerville or for any production to be sold in other cities and towns in Massachusetts, both the facility and each user will need to obtain a wholesale permit from the state, as well as fulfilling all the additional licensing requirements outlined previously.

Further, there must be a certified food protection manager (FPM), certified by the Board of Health, present. The manager must be 40-hour equivalent; in other words, a regular, five-days-per-week operation must have one full-time food protection manager, with shorter hours requiring fewer FPM hours. Unfortunately, each individual license holder must satisfy this requirement. The facility cannot cover this requirement – each individual must do so on their own.

This means that each entity (be this a single person or a group recognized as a single entity under the law, like a corporation) must fulfill this requirement. Each individual must be a certified food protection manager, although a corporation or other legal group could spread the requirements – or the fees, at least – amongst all members. For more specific guidance as to how the requirement for a food protection manager can be filled, please contact the local Board of Health.

Product development

There are many resources for product development. A key recommendation is to start small and keep your expenses reasonable in the beginning. The Pennsylvania Association for Sustainable Agriculture/Cornell University's "Adding Value for Sustainability" describes important steps for establishing a food product, including: taste testing with target audiences, performing market research, researching regulations, insurance, becoming a legal entity (LLC, corporation, etc), product sourcing, producing sales literature, designing product labels.

A business plan is also essential to creating a successful product or brand, especially in soliciting financing. Your business plan may include: a description of your product and how it is unique, a description of your target client, information about your competition, information about the cost of your product (in terms of manufacturing, packaging, labor, rentals) and potential sales price, and a set of short-term goals that indicate how your product or brand will develop over the next 1-3 years.¹⁰

¹⁰ Mi Kitchen es su Kitchen, "What You Need To Grow", <http://www.mikitchenessukitchen.com/grow.htm> (accessed March 20, 2010).

Insurance

The most basic insurance required is business liability insurance, required by the city of Somerville prior to any vendor's license being issued and listing the city as an "additional insured" party. Although product liability insurance is not an overt legal requirement, it would not be advisable to go without. Additional insurance, such as workers' compensation, may be required according to the type of facility and how it is operated.

Costs and Funding

Facilities just starting are generally obligated to obtain funding through grants or bank loans. Community Kitchens often find funding from State Departments of Agriculture, United States Department of Agriculture, foundations, micro-loan organizations, and individual contributors. Community kitchens rely on a variety of funding sources. The USDA and the federal government recently announced a number of health initiatives and funding targeted at urban communities. *(See the following page for a listing of possible funding sources.)*

COSTS Developing a Community Kitchen

Example A

Fully develop and equip a 7,000-square-foot facility to be included in a future community college culinary arts building.

Total budget of \$1,662,954:

building costs (\$885,000)	kitchen equipment (\$604,454)
architecture and engineering fees (\$88,500)	startup expense/capital reserve (\$85,000)

Example B

Fully develop a small 1,000-square-foot addition to the existing CCC Culinary Arts building and equip the facility.

Total budget of \$413,165:

building costs (\$189,750) (would not include a warehouse facility)	kitchen equipment (\$154,440)
architecture and engineering fees (\$18,975)	startup expense/capital reserve (\$50,000)

(Source: Mills, Smithson, and Cameron Wold. "Developing Shared Use Food and Agricultural Facilities in North Carolina", <http://www.smithsonmills.com/ncshareduse.pdf>.)

RESOURCES

Online List of Kitchen Incubators in the United States

State-by-state list of community kitchens in the country; not a complete listing.

<http://cookingwithdenay.com/incubator-and-commercial-kitchens-for-rent/>

There are two community kitchens listed in Massachusetts:

- Dartmouth Grange Shared-Use Kitchen, Dartmouth, MA. <http://www.dartmouthgrange.org/>
- Franklin County CDC, Greenfield, MA. <http://www.fccdc.org/>

National Food Business Incubator Network (Food BIN)

Facilitates collaboration between existing and new kitchens.

Commercial Kitchen Rental Blog

Resource to find community kitchens to rent around the country. <http://commercialkitchenrental.wordpress.com/>

Food Biz Startup

A virtual learning center designed for the food business entrepreneur and practitioners. www.foodbizstartup.net

Cornell University's Northeast Center for Food Entrepreneurship

Offers a variety of courses and food testing services that are important while developing a food business.

POTENTIAL FUNDING SOURCES

- USDA Healthy Urban Food Enterprise Development Grants
- USDA/Health Dept Healthy Food Financing Initiative
- State of Massachusetts Development Department offers a variety of low cost loans to start up businesses.
- ACCION International: ACCION is a private, nonprofit organization that specializes in micro loans, business training and other financial services to poor men and women to start their own businesses. www.accion.org
- Women's Venture Fund: WVF is a non-profit organization that helps women of diverse backgrounds establish thriving businesses in urban communities by providing courses, counseling, credit and more.
- Count-Me-In: Count-Me-In promotes economic independence and the growth of women owned businesses. By providing resources, business education and community support for women entrepreneurs seeking to grow micro businesses to million dollar enterprises.

CASE STUDY Stecoah Valley Food Ventures

Location: Robbinsville, North Carolina

Status: Open for business since Sept. 2005 **Grant Funds Awarded/Used:** \$245,000

Total Investment Cost: \$275,000

Individuals/Businesses Using Facility: 8

Food\Community Events Hosted: 13

Products Value (8/1–12/31/06): \$10,755

Hours of Use (8/1–12/31/06): 273

Budget Total Development Cost: \$250,000 (Estimated base annual operating cost: 25,000 to \$30,000)

Building renovation: \$140,000 Equipment acquisition: \$50,000 Staff: \$30,000 In-kind Labor: \$30,000

SVFV has an established management plan in place. Policies on use and fee structures were developed with the support of another community kitchen and are formatted to meet three specific types of uses:

- Individual Use - home canning or value adding for personal use
- Business Use – commercial production
- Group Use - use for community meetings, fundraisers for nonprofits, etc.

Marketing/Publicity

For marketing the project to the larger community, SVC relies on word of mouth and stories in the local newspaper.

Alternative uses

The meeting-room facility has been invaluable for hosting community meetings and is the only place in the county to have a private business meeting with a catered meal. SVFV recognizes training and education in food entrepreneurship is a critical part of the kitchen's mission.

Barriers

SVC is limited in its capacity due to space and equipment restrictions. It has no walk-in coolers or freezers and only 150 sq. ft. of rentable storage space. Project leaders report that the biggest challenges involve the process of helping clients understand cost structures for commercial food production and how to make optimal use of the kitchen for commercial food preparation. For others who may want to set up a community kitchen, project leaders say organizations need to understand there will be a lengthy development period that will require a lot of learning before client use and policies will be standardized. It is clear that a project of this limited size works best when integrated into an existing project.

(Source: Mills, Smithson, and Cameron Wold. "Developing Shared Use Food and Agricultural Facilities in North Carolina", <http://www.smithsonmills.com/ncshareduse.pdf>. 2007.

CASE STUDY Madison County Multi-Purpose Agricultural Complex

Location: Marshall, North Carolina

A facility to gather, process and distribute agricultural products and institutional buyers (mostly local public schools and colleges). In the last half of 2006, products included tomatoes, potatoes, lettuce, green pepper, green and red cabbage, and apples.

In addition, Madison Farms has served as a broker for apples grown in Henderson County and has begun having locally grown beef processed at a USDA facility nearby.

Madison Farms' relationship with institutional buyers is beneficial both for the farmers and the overall project. A farmer is provided with a known sale price for his produce and the project knows it will have product to sell at a set price. This enables the product to be marketed at a fair and reasonable markup, which also benefits the local institutional purchasers. Most importantly, it allows area farmers to take advantage of the higher produce prices available through the value-adding process of cleaning, sorting and packaging.

(Source: Mills, Smithson, and Cameron Wold. "Developing Shared Use Food and Agricultural Facilities in North Carolina", <http://www.smithsonmills.com/ncshareduse.pdf>. 2007.)

CASE STUDY Mi Kitchen es su Kitchen

Location: New York City, New York

Mi Kitchen helps food entrepreneurs capture the growing specialty food products. It is a kitchen incubator with multiple kitchen workspaces and professional product development staff. They assist food entrepreneurs in bringing their products from the home kitchen to the marketplace by offering long and short term professional kitchen leases in their commercial kitchen.

"Current sales of specialty foods at retail were \$24.7 billion, and jumped 17.9% between 2002 and 2004 versus a 7.7% rise for sales of all food. Over half of all the products sold in specialty food stores are purchased directly from the manufacturer. "

(Source: Mi Kitchen es su Kitchen, <http://www.mikitchenessukitchen.org>)

CASE STUDY Rockingham Community Kitchen

Location: Wentworth, North Carolina

Status: Open for business September 2006 **Grant Funds Awarded/Used:** \$24,000

Total Investment Cost: \$24,000 **Clients Using Kitchen:** 8

Clients Receiving Training: 30 **Product Output Value:** > \$1,000

Budget Total uses: \$24,000

Building renovation \$8,750 Equipment \$ 14,500 Marketing \$ 750

The majority of the building renovation and upgrading an existing kitchen facility (300 square feet of kitchen space, 100 square feet of dry storage and 50 square feet of cooler space) to meet FDA regulations. The equipment purchased included a double-stack convection oven, a three-compartment sink, a dehydrator, a freezer, an ice machine, a 23-quart canner, a pressure gauge tester, a mixer and mixing bowl, a colander, and a lockbox.

RCK has a variety of written agreements covering their policies. Tenants must follow a 32-step process to gain entrance into the kitchen, including application, food and sanitation certification, equipment safety, rental fees and deposits and the written rules and regulations that govern facility use. Area food entrepreneurs are afforded the use of the kitchen to manufacture specialty-food products and conduct catering when the kitchen is not in use by the ROC. The institutional capacity is entirely through the donated efforts of the sponsoring organization, as well as resources from state agencies and they are now forming a steering committee of local advocates and farmers.

(Source: Mills, Smithson, and Cameron Wold. "Developing Shared Use Food and Agricultural Facilities in North Carolina", <http://www.smithsonmills.com/ncshareduse.pdf>.)

