

VIEWPOINT

Urban gardening: A valuable activity, but...

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Abstract

Urban gardening has a high popularity among civic politicians as well as certain vocal advocates. However, there is no basis to expect that this food-supply concept could ever deliver fresher food and/or lower cost foods to most people living within the contemporary structure of a modern urbanized society.

Urban gardening¹ exemplifies one of the more admirable civic developments of recent years (see, for example, Colasanti & Hamm, 2010; Kremer & DeLiberty, 2011; Rudolf, 2010). But sadly the societal benefits of urban gardening may have been exaggerated by civic politicians and vocal advocates.

¹ In this paper, urban gardening, synonymous with community urban gardening, means gardening by citizens voluntarily in city land allocated or recognized by a civic authority. Decades ago, urban gardening simply denoted recreational gardening by individuals or families in the front or back yards of single-family homes located within the city limits.

There are limits to what can be achieved, dependent upon the why and the where. There are several motivations for urban gardening; some are largely self-contained, while others apparently seek to compete with existing food supply systems. The latter, we argue, are likely to find it difficult to succeed.

Turning to motivations, a desire for food security may be a key driver. Yet security relates not only to food availability, but also to accessibility and a perhaps the belief that greater security flows from food that is in some way local. Depending on locality, the definition of “local” is highly elastic to suit the interested parties (Feagan, 2007; Hand & Martinez, 2010). As civilization has

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evolved from an agrarian society to a mercantile-industrial society, food supply has basically become a specialized activity delegated to full-time farmers. There is effectively no possibility of nostalgic return to the days of “growing (all) one’s own food.”

In North America as well as in Western Europe, food supply is now dominated by increasingly efficient international transportation networks exclusively serving large commercial food retailers. Indeed, the vast majority of fresh vegetables and fruit are not sourced locally but come instead from agri-business farms often located abroad. Despite this monolithic food-supply structure, more informal and pro-local sources of food have gained political currency.

The driving force behind urban gardening is local pressure for innovative food sources offering fresher, better food. This is always, however, tempered by systemic obstacles — affecting all urbanized societies — that include substantial changes in employment patterns, accelerating densification, and changing family structures. For illustration, we have chosen Vancouver (Canada). Some of the key characteristics of Vancouver include (a) having a climate that is not ideal for growing tropical and subtropical vegetables such as tomatoes and bell peppers, and (b) having a high urban density, at about 12,950 per square mile (5,000 persons per square km). Furthermore, the Vancouver metropolitan area cannot expand as it is hemmed in by mountains, the sea, and the nearby U.S. border.

In 2006, the Vancouver city government enacted bylaws to promote community gardens and other forms of urban agriculture, as important neighborhood gathering places to promote “sustainability, neighborhood livability, urban greening, community building, social interaction and food production” (City of Vancouver, 2012). In Vancouver, available gardening space is reduced steadily by the implementation of the “ecodensity” development model whereby single-family dwellings are routinely demolished and replaced by multioccupancy apartment towers. Ecodensity is being promoted ostensibly to reduce, among other things, the city’s carbon footprint, including shorter commuting distance between home and work. The side effect is the creation of highly

densified and unlivable spaces in which people are compacted into minuscule “bedroom boxes” with substantially less open-air environment. Increased logistical problems of food supply and domestic waste disposal have largely been ignored. The ecodensity development scheme would appear to contradict Vancouver City’s “greenest livable city by 2020” policy goal. Urban gardening is a poor substitute for traditional single-family home gardening inside the city limits. Predictably, the demand for garden plots greatly exceeds the plots available, and so undeveloped private land may obtain certain city property tax reductions if the land is donated, even temporarily, for urban gardening uses. The typical size of a Vancouver garden plot is just 43 square feet (4 square meters), which is suitable only for the growing of some flowers, vegetables, and herbs for personal enjoyment. Inexplicably, the city of Vancouver does not maintain an accurate and publicly available inventory of land in active use for urban gardening. Nevertheless, we have used various nonofficial sources to estimate that about 430,600 square feet (40,000 sq. m) (i.e., 0.04 percent of the total land area) were used for urban gardening in Vancouver in 2011. If the allocation were one person per plot, the beneficiaries would be, at best, about 1.5 percent of the entire city population.

Shortage of “low-value vacant land” within city limits is an enormous obstacle to the expansion of urban gardening. MacRae et al. (2010) noted that a modest goal to supply 10 percent of needed fresh produce to Toronto residents would require the re-allocation of nearly all vacant lots, including those in outlying areas. In Vancouver, the use of rooftops has been promoted as a means to overcome the land problem (Shore, 2011); however, delivering adequate water, nutrients, heat, and lighting to rooftop gardening sites remains very problematic. The high capital cost makes this undertaking economically feasible if and only if produce is sold at premium prices to high-street restaurants. This approach obviously does not improve food security, such as affordability, for the wider population. Thus, urban gardening as a strategy for food security and social justice for poor citizens as envisaged by vocal proponents (see, for example, Koc, MacRae, Mougeot, & Welsh, 1999, and Detroit

Black Community Food Security Network [DBCFSN], n.d.) could not and would not be realized under these and other intractable physical and societal constraints.

Additionally, Vancouver city government has been promoting weekend farmers' markets principally during the summer months as a venue for the sale of "local" produce to local citizens (McDonald & Cooley, 2012). There is essentially no evidence to suggest that these farmers' markets could ever provide an adequate supply of locally produced fresh vegetables to feed the entire Vancouver population. The fundamental factor remains that in the northern climatic zone, the growing season is short and is limited to certain cool-weather crops. Fossil-fuel heated greenhouses are used routinely to grown warm-weather crops such as tomatoes, bell peppers, and cucumbers almost year-round. Furthermore, vendors typically are vague about the carbon footprint of produce grown locally in the nonsummer months. Fresh vegetables grown in local heated greenhouses have been found recently to have a substantially higher carbon footprint than those grown in open fields in warmer northern Mexico (Wong & Hallsworth, 2012). The carbon footprint incurred by the road transportation of produce from distant fields to retail outlet (e.g., from Mexicali to Vancouver) is of minor consequence.

The official popularization of "pocket markets" (Evans & Miewald, 2010) and sidewalk produce carts in Vancouver carries an inherent energy-inefficiency in the truck delivery of small amounts of produce to multiple retail locations. Novelty apart, these simply offer improved shopping convenience for some time-pressured people working in large office buildings. There is no inherent assurance that the produce sold is any fresher than that purchased from a fixed-location grocery store. Another contentious issue is the potentially unfair competition against food retailers who have to pay city taxes for rented or owned fixed locations. Indeed, such concerns are often leveled against farmers' markets as well.

In reality, most nonagribusiness sources could provide just a small supplement to the basic supply of seasonal vegetables. Furthermore, if food production were to extend well beyond the own-use

regime, then commercial, large-scale operations would be essential to maintain profitability. More productive land would be required within the confined city land base. How, then, would this differ from mainstream commercial farming? The inherent localness would surely be lost.

What can a civic government really do to improve food security in an urban setting? Does encouraging urban gardening in private and/or community lots meaningfully improve a city's food system? Regrettably, no. Given the prevailing structure of modern, urbanized mercantile-industrial society, urban gardening can only afford the personal enjoyment of having grown one's own vegetables and fruits, while communal gardens bring intangible socializing benefits. It would be misleading to pretend that urban gardening could significantly improve food security and affordability.

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