Abstract

While local farming and community gardening are ideas gaining in popularity, they face several challenges in becoming established. Soil content, as well as space, and environment are all contributing factors. The possible end results of a local food source on a region range from stimulating the economy by creating jobs and keeping money local, to teaching youth about nutrition, or even reducing congestion on major roadways by reducing travel time and distance from soil to table.
Urban Food Production

Food sources are largely confined to single crop farms located either in the Midwest, or coastal states. Because of the distance between the growing area and buying area, food is shipped and travels great distances over a long period of time before arriving on your table. The localization of food could ease congestion, and provide fresh seasonal ingredients to households across the Americas. By bringing farms to urban and suburban communities, food sources would be closer to their destinations, and have the opportunity to impact local economies. The task then becomes not how to ship goods quickly, but how to fit farms into small spaces.

It is commonly perceived that the Midwestern states can only sustain growth of crops such as corn, and that other food types are grown where they are because it is necessary. It is also commonly perceived that current farm practices are the most effective because it’s “what everyone does” when in reality most major US farms are a small step above basic deserts. The mono-crop culture, while wide spread, is inefficient.

The neighborhood of Northside has a densely populated central business district which is surrounded by residential properties that sit on lots less than a third of an acre. The area is within close proximity to both I-74 and I-75, which not only serve as a transit source for the plentiful warehouse and manufacturing sites, but essentially isolate the area from other neighborhoods of similar scale. These conditions do not instill an image of traditional food sources.

The task of establishing a successful farm in a location such as this must follow several steps in order to be successful. The typical trials of farming are present in an urban setting, and oftentimes amplified because of the condensed space, and surrounding environmental factors.

The Establishment of a Farm

Much of the process of readying land for crop production is the same whether you plan to grow on 800 acres, or 500 square feet. Once a site has been selected, the soil must first be stripped of currently growing flora; likely weeds. This can be achieved through several methods, most commonly a combination of a sprayed herbicide, and tilling the
soil (EPA). Often, tilling occurs just prior to a planting season, and is the most basic preparation for farming. Large areas are at a greater risk for erosion than small spaces surrounded by developed land, and may use a more cautious method of tilling (EPA).

After planting occurs, the crops not only need to receive nutrients in the form of sunlight and water, but pests must be managed as well. While 98% of the corn production in the US is grown with the use of pesticides, the recent movement towards organic food, particularly in urban settings, would not allow for the spraying of a chemical into the environment or onto food (EPA). In these cases, farmers and gardeners turn to natural ingredients in an attempt to ward off insects. Commonly used solutions are garlic and seaweed mixtures, which are sprayed directly onto plants throughout the growing process.

Once crops reach maturity, they are harvested for consumption or selling. Large-scale agricultural businesses may likely use large machinery to harvest and package their goods, though on a small scale urban setting, this task is achieved by hand and small tool.

Pollutants Matter More in Cities

When you rent an apartment, or purchase a home in The United States, you sign documents showing that you are aware of the effects of lead paint. It is obvious that in homes, especially those built prior to 1978, lead paint can be present, and is toxic when ingested (HUD). What many people don’t think about is that over time, exterior paint can flake and reach the soil surrounding their home. With the older housing stock in Northside, and many surrounding uses being of a brownfield nature, soil contaminates, such as lead, are major contributors to the list of hurdles facing urban gardeners and farmers. Soil testing can not only help identify how to make the present soil more apt to growing crops, but can identify any potential harmful chemicals present. While other soil contents may only prohibit certain plants from flourishing, lead will lead to the food or flowers becoming toxic and unsafe to eat (Murphy). Having such common soil problems in urban areas has lead to a revalence of “container farms” in major cities….
Efficiency in Small Spaces

When growing in a small space, it is vital to utilize every square inch of possible growing space in order to produce a crop that has the potential to provide a profit, be it spiritual from feeding loved ones, or monetary from selling goods at a local market.

The monocrop culture, while rampant in the United States, is inefficient and creates a desert-like growing environment with a singular species monopolizing resources such as sunlight and water. Companion planting, a variant of intercropping, offers a solution to not only grow more than one species at a time, but to mitigate potential soil problems such as nitrogen levels, or invasive weeds. The most common combination of companion crops is known as “The Three Sisters” and uses the most frequently produced foods; corn, beans, and squash (Kuepper). Corn is planted first, and acts as a structure for the beans to climb as they grow. Beans are a “nitrogen fixer” and supply the nutrients that the corn needs. Squash is a ground cover and maintains a healthy moisture level in the soil, while preventing weeds from growing in the area. (Kuepper). While it is common for large-scale farmers to alternate soybeans each year in an attempt to repair the damage caused to the soil by growing corn, this method of combining species enables the gardener or farmer to achieve a higher level of productivity.

Once Established

Local food has the opportunity to not only be sold in its region, but can potentially impact and even change the way people eat. In major grocery chains, fruits like raspberries, bananas, and avocados can be found year round. Residents of snowy and cold states like Michigan in February are able to purchase produce that couldn’t have possibly been grown anywhere within hundreds of miles, or months of the year. This practice causes people to be unfamiliar with the concept of eating seasonally. While having access to these goods year round is certainly a treat; it should be viewed as such—a treat, and not an everyday occurrence. Because the produce moves by freight, semi, or plane over weeks it is able to be sold in these stores, and purchased without much thought to where the food came from, or how it arrived at its present location.

This practice of not thinking about food can be said to have lead to the current state of diet and health within the country. The impact that local food can have in this aspect is a difficult variable to measure. There are several ongoing programs with various
farms and schools which strive to introduce children to the idea of local food with the hope that doing so will impact their future eating habits and food related decisions.

**Impact on Local Economies**

Urban farms, while small, may be too much work for just one individual. Community gardens, as well as urban farms have the potential to create jobs in local economies for people to not only water or harvest food crops, but to market the product and advertise the small business (Bonfiglio).

Once crops have been harvested, there are several options with what to do with the bounty. Though gifting food to family and friends is an obvious option, local farmer’s markets offer an opportunity to meet other like-minded growers, as well as many potential customers. Along this same line are CSAs or ‘Community Supported Agriculture” ventures, which often give people living within a few cities from a farm the opportunity to buy fresh and local produce. These can operate on a delivery, or pick up basis, and usually offer a growing season’s worth of boxes, packed with a variety of fruits and vegetables, or even eggs and homemade bread (Local Harvest, Inc). Farmers and gardeners also often provide to local restaurants. While likely more expensive than produce acquired on a more national scale (Bonfiglio), this gives both parties the opportunity to support other local businesses. The restaurant receives fresher produce than they would is they were to purchase from a larger company or farm, and the farmer/gardener is able to see their product utilized in a unique way.

**Impact on Congestion**

While some individuals may argue that people will drive farther to reach farmer’s market environments, studies have found that large trucks use 1 gallon of fuel for every 100 pounds of food they carry over 2,000 miles on average (Flaccavento), while many smaller scale farms sell their crops within 50 miles of their farms, and transport goods in lighter, more efficient vehicles (Flaccavento).

By creating a product that you intend to sell in the same area, you significantly reduce the time and distance that product must travel. Fewer food trucks on local roads and interstates mean less congestion.
Final Words

Localized farming practices such as community gardens and urban farms serve to familiarize the public with food, boost the local economy, and ease congestion.

The Environmental Protection Agency outlines common farming practices, though does not devote much of their web presence to the discussion of organic practices, or urban farms. If community gardens and small sale local food economies continue to grow at a rapid pace, it will be imperative for a national organization to develop standards and practices for food growth at these different scales, and to offer more information on the decontaminating soil in urban environments.

Planning in the United States has been for many years about transportation, and congestion; local food has the potential to drastically affect these fields, and to restructure both economies, as well as the physical structure of a city or region.

While this document does not explore the history of farming practices in the United States, further research into the field may assist in concluding both how society has come to a point of being unfamiliar with the sources of their food, and how a monocrop culture became mainstream. Further research may also be conducted into the field of Organic Farming, and the requirements to become ‘Certified Organic.’
Works Cited


<http://www.washingtonpost.com/wpdyn/content/article/2008/03/07/AR2008030702520.html>.


<http://www.localharvest.org/csa/>.