

Transforming Communities with Market Gardens

A Planning and Resource Guide for Local Governments and Community Partners



Based on Lessons Learned from
The Dania Beach PATCH™



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Introduction



A flourishing garden is a picture of health and vitality. Lush leaves and ripe fruit are made possible through the nurturing of people who are seeking to grow fresh produce, improve access to healthy foods and create beauty in their surroundings. From the beginning, Americans have excelled at farming to support and strengthen their communities, and even today, the nation remains a world leader in agriculture.

However, too often developing a relationship with the land takes place far from urban centers. Cut off from their agricultural roots, urban dwellers face a host of barriers and costs to access healthy foods. Market Gardening, the small-scale *commercial* production of vegetables and fruits,¹ is one way by which urban communities are using community-based agriculture to ensure that everyone has access to fresh-healthy food, while making the local economy more sustainable and vibrant.

Health experts make clear that fresh fruit and vegetables are important for maintaining a healthy weight, and contain essential nutrients for good health. Diets rich in these foods can reduce the risk of diabetes, heart disease, cancer and other chronic conditions and diseases. The link

Figure 1: An elementary school student receives a cup of ladybugs to release



between health and diets rich in fresh fruits and vegetables is undeniable, yet some communities face limited healthy food access.

In recent years, Market Gardening has emerged as a strategy for some populations, especially in urban settings, to address limited, unequal access to healthy food options. These communities are increasingly aware that collective and individual quality of life are closely tied to neighborhood healthy food access. By farming locally, these communities can provide fruits and vegetables that would be more costly and oftentimes less fresh than anything available in a traditional grocery store.

Besides increasing healthy food access, some are beginning to see urban gardening programs and Market Gardens as tools for building more livable, equitable, and sustainable communities. Market Gardens can transform derelict properties into productive spaces, helping to beautify an entire neighborhood. In addition, Market Garden planning and implementation outreach efforts can establish new connections between neighbors, thus contributing to social capital and entrepreneurship opportunities within the neighborhood. Some Market Gardens are enhanced with the addition of job-training programs and vocational educational activities.

Market Garden projects require more than just soil, water, sun, seeds and people. Market Gardens require all these elements and more to be organized and planned *before* project implementation. To provide assistance for those interested in having Market Gardens transform their communities, this Planning and Resource Guide outlines the process of developing the necessary partnerships, programs, and policy due diligence to help local governments and community

¹ <http://agmarketing.extension.psu.edu/Retail/PDFs/MrktGrdningstartupgd.pdf>

partners plan and implement a successful Market Garden project.

Like Community Gardens, Market Gardening is a form of urban agriculture. However, a Market Garden is as much a sustainable business enterprise, as it is a community-building endeavor. In addition to growing and providing fresh food, Market Gardens exist to create neighborhood-based jobs and generate revenue. Market Gardens encompass all aspects of business activity: sourcing seeds and growing supplies, planting and harvesting, and marketing and selling of produce and value-added products in the community.

Because of their small-scale, Market Gardens offer an attractive and low-cost opportunity to transform a community that is struggling with shortages of both healthy food access and economic opportunities. As a result of this orientation, Market Gardens are eligible for funds from federal agencies, including the USDA, HHS, and EPA, to promote community economic development.

As an example, the [Office of Community Services \(OCS\)](#) has provided vital funding and assistance to Community Redevelopment Agencies and their partners. In 2013, with a budget of \$7.1 billion, the OCS recognized efforts to increase healthy food access as a viable redevelopment strategy. The agency offered [Healthy Food Financing Initiative \(HFFI\) grants](#) in 2013 of up to \$800,000 to support, *“businesses and commercial activities that improve the access to healthy foods and the overall health of community residents while creating long-term jobs in the community.”*

Unlike other community development projects, Market Gardens represent an ambitious attempt to make positive contributions to the healthy behaviors

Figure 2: Collard Greens, grown and sold at the PATCH Market Garden in Dania Beach, FL



as well as the physical environment of a community. Therefore, those interested in Market Gardening need to understand the inextricable connections between Healthy Food Access, Community Health, and Community Economic Development. In this context, organizations seeking to build a Market Garden have opportunities to expand access to healthy food while increasing local job opportunities.

“Healthy food access” and **“access to healthy food”** are used often in this document. They encompass the many factors that affect whether a person can acquire the fresh fruits and vegetables they want. One assumption is that the healthiest food is the freshest food, which is food grown within one’s neighborhood. The infrastructure and built environment of a community may create barriers to access, such as distance to a food source or the ease of traveling to it. Cost and affordability of healthy food options is another factor affecting healthy food access.

Using the Guide

The aim of this Planning and Resource Guide is to help Community Redevelopment Agencies (CRAs), other local government entities, and their residential for-profit and non-profit partners understand what is required to plan for and implement a Market Garden project. When successful, Market Gardens improve access to healthy food, ensure that communities are economically vibrant, socially connected, and sustainable. This document explains how to integrate the vision, planning, and community involvement needed to achieve that success.

There are three general focus areas for these processes:

•**Assessment of Policies:** In this guide, policies are formal laws, plans, or an official course of action by a (local) government and official agencies. Examples of local government policies are comprehensive plans and zoning ordinances. Understanding how policies facilitate or inhibit access to healthy food is essential to establishing a public purpose for Market Gardens in local government policies. This Guide provides information about how to frame “a case” to support Market Gardens in local planning policies.

•**Development of Partnerships:** Market Gardens come to life through partnerships between local governments, community-based organizations, local businesses, and residents. This collaboration allows for the sharing of resources and leads to community transformation. A Decision Path (p. 8-9) and The Checklist (p. 24) provides what to consider when developing strategic partnerships.

•**Creation of Programs:** The shared vision behind the Market Garden partnership should guide the development of programs for those involved. This document identifies two general categories of programs. First, *business programs* are management tools and techniques for tracking

income, expenses, crop rotation and job training. Second, *community programs* are designed to build capacity and foster healthy eating. Suggested program ideas are provided throughout and included in the checklist.

There are several well-written guides on Urban Farming, Community Gardens, and Farmers Markets. There are a couple great planning guides specifically for Market Gardens.² These manuals and guides provide invaluable, detailed technical information about properly setting up a business plan, crop plan, preparing soil and seedlings, and developing specialty-niche markets. Though valuable, this information may be overwhelming for those just beginning a Market Garden.

This *Planning and Resource Guide* provides a simplified and *prioritized, step-by-step checklist* to help ensure a successful Market Garden. The checklist is fortified with “*lessons learned*” from experiences with a CRA-created Market Garden, the Dania Beach People’s Access to Community Horticulture™ (PATCH).

The *checklist* addresses key elements needed for a successful Market Garden, including the creation of the vision with community partners, involvement of local government for ensuring proper zoning and land use, and the development of a business and sustainability plan. Resources, including easy to use worksheets created by the EPA’s *Urban Farm Business Plan Handbook*, are included to assist in the development of a successful Market Garden.³

These elements make this *Planning & Resource Guide* uniquely designed to frame healthy food projects, partnerships and programs in the context of urban community redevelopment policy.

² The University of Idaho’s 2007 guide, *GROWING TOWARD SUSTAINABILITY Market Garden Planning and Production Guidebook*, is a good resource: http://webpages.uidaho.edu/soilstewards/Growing_Toward_Sustainability/GTS_WEB_EDITION.pdf

Planning A Market Garden

The secret to success for any new endeavor is planning and preparation.

Starting a market garden is no different.

For simplicity's sake, the planning process is broken down in a way that will help the partnering organizations consider the potential challenges and

legal questions to answer beforehand. The questions below are intended to help CRAs, local governments, non-profit organizations, and residents consider whether a Market Garden is beneficial for the community, and if the right components are in place for such a project. A more detailed decision tree of this process is on pages 8 and 9.

Develop Policies

Are Market Gardens or similar activities allowed under the municipality's planning documents? *Move forward by researching the benefits of Market Gardens. Engage the community to detail the potential value and educate key decision-makers on the benefits of a market garden enterprise.*

Do local regulations provide strong support for Market Gardens ? *Move forward by reviewing policies, zoning code and other laws, including those regarding growing and selling farm produce and value-added products. Frame the market garden's activities in the context of serving the public interest.*

Develop Partners

Do you have the right partners to make this a reality? *Move forward by finding dedicated allies who can handle funding, development and operational phases of the project. Make sure all parties are clear on the goals, objectives, roles and responsibilities.*

Develop Programs

Do you have the right programs in place to sustain the market garden? *Move forward by identifying the various activities will be required and build programs around them. Consider activities outside the basic elements of growing and selling produce, such as nutritional awareness, job training and community engagement.*

“Public purpose” in this document means “an action or policy by or at the direction of a local government for the benefit of the community.” For a comprehensive review see: Randall, Martin M., ‘Different Faces of Public Purpose: Shouldn't It Always Mean the Same Thing,’ *The Fla. St. UL Rev.*, 30 (2002), 529

³The EPA Urban Farming Resource page : <http://www.epa.gov/brownfields/urbanag/resources.htm#handbook>

The EPA is also a good source for Market Garden/Urban Farming grants. Using their worksheets to help you design your Market Garden may increase your chances of award.

Market Garden Decision Path



Scenario: a CRA, city government, or nonprofit organization receives anecdotal information suggesting that a Market Garden may be a beneficial addition to the community. Instead of immediately proceeding to break ground on the Market Garden project, the following questions, and decision paths should be explored, first.

START HERE: Are Market Gardens or similar uses allowed in the community's planning or policy documents?

Yes



Not yet



1. Articulate why Market Gardens are important for the community, and why decision makers should support them:

For help in this task, refer to www.healthyfoodaccess.org. Work with community partners to “build a case” about why the community needs to have Market Gardens in the official planning documents. Benefits include:

- Social
- Economic
- Environmental
- Community health

2. Educate decision makers about how these benefits serve the public interest, and have a public purpose as defined in the community's planning and redevelopment policies.

3. Organize a Market Garden advocacy group with likely Market Garden partners in order to sustain decision-maker education and affect policy change.

Do the *policies* provide strong support for Market Gardens or similar uses?

Yes



- Visit www.municode.com to review land use codes.
- Does the zoning code allow it?
- Is growing and selling allowed on site?
- Does the county or city comprehensive plan, or CRA plan define Market Gardens or similar uses?
- Do the policies recognize the social, economic, environmental and health benefits of Market Gardens or similar uses like community gardens?

Not yet



“Build the case” by connecting the benefits of Market Gardens to established planning policies that protect public health, safety and general welfare.

Document how Market Gardens are connected to the current goals, objectives and policies.

Example: Many plans have goals for improving the economy or the environment. How do Market Gardens advance these goals?

Educate decision makers about how Market Gardens strengthen and advance local planning policies.

[Relevant statutes in Florida:](#)

The Community Planning Act, Sec. 163.3161

The Community Redevelopment Act, Sec. 163.335

Market Garden Project Implementation

Break ground on the Market Garden.
A Successful Market Garden Project=
Policies + Partnerships + Programs



Are the right *partnerships* in place?

- Are the right partnerships in place to plan, implement and manage the Market Garden?
- Partner organizations are needed for funding, developing and operating.
- Other activities needed are: Grants, Business Development and Education, Program Development, Managing Daily Operations.

Not yet

Develop diverse partnerships with some of the following:

- City, CRA or county planning
- Health department
- IFAS-Master Gardeners
- Faith-based organizations
- Volunteer organizations
- Urban gardeners
- Local food enthusiasts
- Schools and colleges
- Small business association
- Community-based organizations
- Neighborhood associations
- YMCA

Are the right *programs* in place?

To sustain the Market Garden, an organization and its partners will need at minimum, the following programs:

- Growing operations and specialty crops
- Business operations and marketing development
- Community and customer relations
- Health, nutritional awareness and equitable food access
- Job training and skill advancement
- Market Garden implementation and managing plans

Not yet

Leverage partner expertise to create Market Garden programs that build community engagement, create volunteer opportunities, offer job and skills training, and enable the Market Garden to become profitable.



What is Market Gardening?



According to the [National Sustainable Agriculture Information Service](#), Market Gardening is the, “*small-scale, intensive commercial production of vegetables, fruits, flowers, and other plants on a scale larger than a home garden, yet small enough that the principles of gardening can be applied.*” Products are sold on-site or elsewhere, at a stand, market or store. Although Market Gardens exist to make a profit, Market Gardens may also offer a range of community and educational programs for children, youth, adults, and specific populations, such as homeless people, pregnant teens, and formerly incarcerated youth or adults.

Market Gardens are designed to be embedded in the community and oriented towards the local food system. Some grow fresh produce to sell in local retail outlets such as neighborhood stores, others distribute through wholesale channels, and some may provide their harvests to create value-added products, like strawberries for strawberry jam. Market Gardens also may engage youth or volunteer groups to supply the labor needed to maintain the garden, plant seedlings, perform [integrated pest management](#), and market fresh food.

Market Gardens and other Community Food Projects

The USDA defines [Community Food Projects](#) as community-based projects and programs which fight food insecurity in low-income communities.

Contemporary Market Garden models have evolved primarily from a combination of two kinds of popular community food projects: community gardens and farmers markets.⁴

A *Community Garden* resembles a Market Garden because both dedicate space for planting and growing in small areas within a community. Community Gardens differ in that they may rely on individual members who pay dues and dedicate their own supplies, expertise and labor to contribute to the effort. Additionally, the fruits and vegetables grown in a Community Garden may be donated or distributed in

other ways that do not directly generate revenue or profit for the organization.

A *Farmers Market* is a marketplace that brings local growers into a community to sell fresh foods directly to residents. Unlike a Market Garden, however, Farmers Markets often have little to no control over the growing or production of the foods available for sale. In addition, Farmers Market may include suppliers from many miles outside the immediate community. Some also provide meats, dairy and manufactured products in addition to fresh fruit and vegetables.

Market Gardens may also incorporate [Community Supportive Aquiculture](#) (CSA). A CSA is a crop purchasing and mutual support arrangement directly between the farmer(s) and a community of customers, or “CSA members.” The CSA members act as “farm” shareholders, and pay for the crops ahead of planting season, where labor costs are generally higher. The farmer is bound by trust to provide it members the best quality food as possible. In a CSA, both the members and the farmer share the risks and benefits of the food production.

A Market Garden model may combine characteristics from several community food projects types. For example, the Seattle P-Patch Market Garden program sells its community member grown produce through a farmer market stand and a CSA.

Figure 3: Volunteers and the Dania Beach CRA executive director fill planning bags for the PATCH Market Garden in Dania Beach, FL



⁴ http://www.nifa.usda.gov/funding/cfp/cfp_synopsis.html

Examples of Market Gardens

Seattle P-Patch Market Gardens

Seattle, WA

Founded in 2008

Seattle P-Patch Market Gardens is a partnership between a non-profit group and the City of Seattle Department of Neighborhoods. During the growing season, the organization produces weekly deliveries of high-quality, farm-fresh organic produce. Seattle P-Patch maintains two plots, each with its own farm stand. Many of the gardeners are drawn from the city's immigrant community, especially those healing from war in their home countries in Southeast Asia and East Africa. The garden provides supplemental income for the gardeners as well as food for their families and friends.

<http://www.seattle.gov/neighborhoods/ppatch/marketgardens/>



The Food Project

Lincoln, MA

Founded in 1992

The Food Project relies on teen employees and volunteers to produce a quarter-million pounds of healthy food for residents of the city and suburbs each year. A major focus of the Food Project is helping young people connect with the land and find meaningful work in their own community. The organization employs over 100 young people and 25 full-time each year, and enjoys the support of some 2,000 volunteers. Some of the project's harvest is donated to local hunger relief groups, and the remainder is sold as CSA shares and farmers markets.

<http://thefoodproject.org/our-farms>

Lessons from The Dania Beach PATCH: Peoples Access to Community Horticulture



First planted in September 2012, the Dania Beach PATCH Market Garden provides valuable lessons that are useful for other communities looking to launch, manage, and nurture Market Gardens. The Dania Beach PATCH currently occupies a 1.6 acre space within a residential neighborhood in the community of Sun Garden Isles in Dania Beach, Florida. In just one year, it produced an abundant variety of crops for sale and nourishes customers and supporters with healthy, pesticide-free, locally grown produce.

Project Background

Policy First

The need for improved access to healthy food was first expressed by Dania Beach residents in 2008 when they met with their CRA during a series of community visioning sessions and workshops to inform the drafting of the agency’s [2009 CRA plan](#). In response to the residents’ input, the Dania Beach CRA Redevelopment Plan incorporated language into the implementation plan that would “*identify and utilize vacant sites for neighborhood gardens.*” By 2010, the “neighborhood garden” objective was fully incorporated into the policy language, and the agency located an appropriate parcel for what would become the PATCH Market Garden.



Figure 4: Volunteers pick Okra from the PATCH Market Garden in Dania Beach, FL

PATCH Partnerships and Programs

To ensure the future of the planned garden, the Dania Beach CRA connected with partners that included the Broward Regional Health Planning Council (BRHPC).

BRHPC, a non-profit organization, is the legislatively designated local health planning entity for Broward County. BRHPC specializes in health and human service innovations at the national, state and local levels through planning, direct

Timeline of the Dania Beach PATCH





Figure 5: The location of PATCH on 1200 NW 1st Street, Dania Beach, Florida

services, implementation, evaluation and organizational capacity building. BHRPC had a unique initiative to contribute to the partnership. In 2011, BRHPC was awarded a Community Transformation Grant entitled, Transforming Our Community's Health (TOUCH), from the Centers for Disease Control and Prevention. Funded by the Affordable Care and Patient Protection Act, TOUCH aims to improve health and wellness by supporting community-level programs that prevent chronic conditions and diseases, and

reduce health disparities and healthcare spending. A key focus of the TOUCH initiative is to implement programs to increase the accessibility, availability and affordability of healthful foods in areas deemed as "food deserts." After conducting its own assessment, BRHPC agreed that the plot designated for PATCH was a prime location to launch a Market Garden.

With this partnership in place and with the support of local residents, the planting of PATCH started on September 29, 2012.

PATCH Details

- 1.6 acres in Sun Garden Isles, Dania Beach, FL
- Located in a low-income, residential community
- Opened in 2012
- Diabetes death rate in the neighborhood is 27% higher than county average
- Poverty rate 27% higher than county average
- Located in an official USDA Food Desert



Figure 6: The official logo for the Dania Beach PATCH

Dania Beach PATCH Partnerships

Together, the Dania Beach CRA and BRHPC have mutually beneficial networks of partners that help advance the vision, mission and sustainability of PATCH. With the TOUCH initiative, BRHPC has gathered a host of partners to improve health outcomes of those who live, work, learn, play and retire in Broward County. A full listing of the partners and strategic focus areas are included in the Planning Guide's companion site (www.touchbroward.org/MarketGardenGuide).

By partnering together, both the Dania Beach CRA and BRHPC are able to promote projects outside of their normal scope of operations. For the PATCH Market Garden, the CRA worked to make the land and physical infrastructure available, while BRHPC provided the expertise from its healthy living programs to build a project that can effect positive change in a community.

Although the partnership with BRHPC is important, there are many others that ensure the PATCH's vitality and viability. One valuable partnership that the PATCH Market Garden has formed is with



Figure 8: Lady bugs being released by an elementary student to protect PATCH's crops from aphids.



Figure 7: Volunteers Preparing PATCH-grown Collard Greens for sale.

HandsOn Broward, which helps bring volunteer workers to the site. Community members donate their time to help with new plantings and daily maintenance that is needed in the garden. Partnerships like these are useful to expose the project to even more people in the area and to help manage the work load.

Community education is another objective of the PATCH, which has partnered with several groups to conduct garden tours, school field trips, "Ladybug Releases," master gardener workshops and volunteer days at the garden. The purpose of the activities are to teach residents of all ages, children through retirees, about growing and eating locally grown fruits and vegetables and natural pest control techniques that do not involve manufactured chemicals. The residents learn that instead of using pesticides to kill aphids, ladybugs can be used, and some of the flowers grown in the PATCH actually deter pests. The events have included **Friends of the Library in Dania Beach**, **YMCA**, **FLIPANY (Florida Introduces Physical Activity and Nutrition to Youth)**, **The Alliance for a Healthier Generation** and **Memorial Healthcare System**. Market Gardens are invaluable tools of community

Making the Case for Market Gardens



development because they seek to combat several major problems at once, including poverty, disease and lack of access to healthy food. On their own, each of these community issues should be enough to justify a modest program like local gardening. Together, however, they provide a powerful incentive to support Market Gardens as a sure path to building a healthier community.

Practically no other area of public planning engages such a cross-section of the population like community food projects. Public transit systems, for example, do not invite riders and transportation engineers alike to help plan and maintain the lines. Community Food Projects such as Market Gardens, on the other hand, call on everyone from planning directors, residents and volunteers to sweat together in a collective effort (see Figure 3). These people do not come together just because they want fresh produce. They come together to solve community problems and, at the same time, improve the quality of life in their community.

One of the main goals of this guide is to facilitate partnerships among different organizations, some of which may come from different backgrounds. Even when these groups come together with a shared goal they do not always speak the same language. For local governments and CRAs, the terms “slum and blight” have powerful connotations that demand action on behalf of the community. For health organizations, concepts linked to disease and wellness generate a similar response. These are two different ways of understanding how our physical environment and our health are interdependent.

According to the Florida State Statutes related to Community Redevelopment Agencies, “slum” is defined as an area having physical and social conditions that *contribute* disease and other

problems. In a similar fashion, the Centers for Disease Control and Prevention identifies behavior and the physical environment as “determinants of health.” *Figure 9* below introduces how CRAs and community health organizations overlap in their missions. *Figure 10* on the next page shows how Market Gardens connect CRAs and community health organizations. The key to this connection is healthy food access, which is in large part determined by the built environment. Following these diagrams is further discussion about the role of urban space and health factors in the development of Market Gardens. Additionally, there is guidance on working with CRAs, related to their planning cycles and the boundaries of their authority.

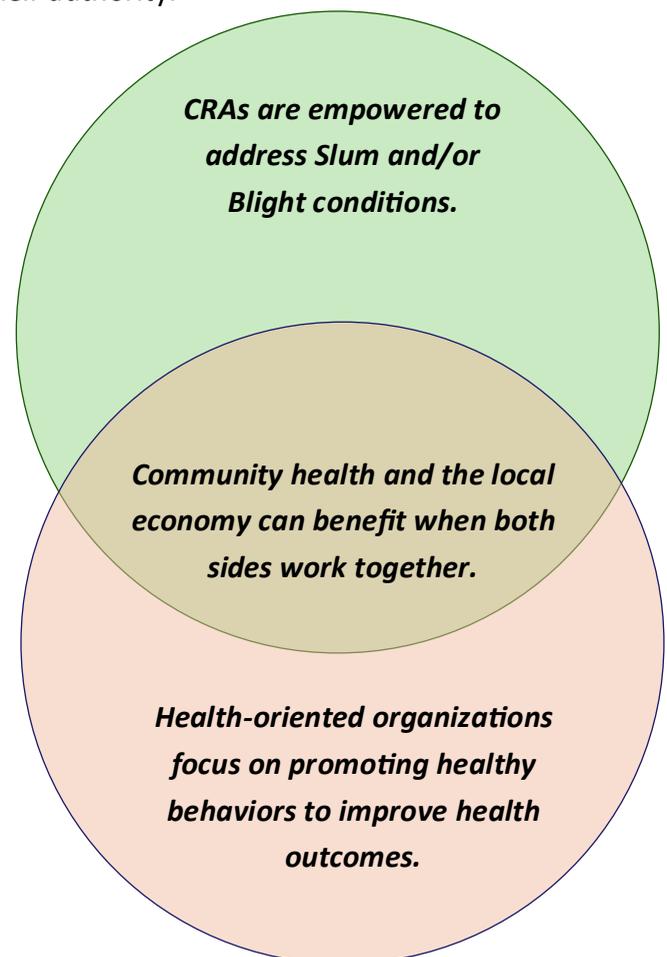


Figure 9: Partnerships between CRAs and health-oriented groups are key to the success of Market Gardens.

Making the Case with CRAs



Because local government planners, CRAs and decision makers have a significant influence over the policies and plans that shape the built environment, they are in a unique position to promote access to healthy food, and relieve barriers to healthy eating and active lifestyles. As a health determinant (see *Figure 10*), the built environment is critical to creating or removing barriers to healthy food access and, therefore, plays a major role in community health outcomes. For example, an urban landscape that requires residents to walk more than 10-15 minutes one way to find a source of healthy food is a barrier.

Local government engagement with Community partners could lead to overcoming barriers to healthy food access. For example, community partners could assist with informing how land use codes can facilitate the establishment or expansion of Market Gardens. Local governments could also assist community partners with providing resources, such as land, water, marketing, and administrative support. When local government and community partners work together to include Market Gardens as a desirable feature to the urban fabric, overall community health and quality of life can improve.

It is important to keep in mind that local governments, CRAs and most nonprofit organizations cannot act or spend public funds unless they are addressing a societal issue: poverty, slum, blight, disease, or unequal access to healthy food. As shown in *Figure 10*, Market Gardens provide a unified strategy for government, nonprofits, and residents to act on all of these challenges together.

The key to successful partnerships between CRAs and other organizations is having well-defined roles and responsibilities. The primary role of CRAs and local governments is to secure space and infrastructure (i.e. the land and resources) for Market Gar-

Connecting Neighborhood Revitalization and Community Health

“Revitalizing neighborhoods through the formal process of redevelopment can bring an array of health benefits for residents. However, health considerations are not usually a priority for redevelopment agencies, where success is measured in terms of increased tax revenue. With strong partnerships between public health and redevelopment agencies – and critical participation from neighborhood residents – redevelopment plans can support both economic and public health goals.”

-ChangeLab Solutions podcast, [“How Four Cities Brought Health into Redevelopment Projects”](#)

dens. Community partners are often more effective with developing Market Garden programs and events, specifically targeted for improving opportunities for entrepreneurship, and active living and healthy eating behaviors (See *Figure 11*). The Dania Beach PATCH, for example, partnered with local experts and organizations to provide trainings on growing at the Market Garden and home, selling at the Farmers Market, creating cottage industry products for sale, developing healthy cooking demonstrations, offering health screenings and providing nutrition education.

Besides sharing program responsibilities, CRAs and community partners may also work on policy development to justify a Market Garden’s public purpose.

The Florida The Community Redevelopment Act, Chapter 163 Part III, was created to encourage redevelopment for specific geographic areas experiencing disinvestment and distress. The Redevelopment Act is based on the assumption that improvements to the built environment are necessary for improving general public welfare and the local tax base. The Act declares that, *“the rehabilitation, conservation, or redevelopment of deteriorated and distressed areas are necessary in the interest of public health, safety, morals, and welfare.”* The first step, a Finding of Necessity (FON), includes preparation of a technical analysis of the existing conditions within the pro-

posed redevelopment area that may hinder or support the quality of life and services needed for a sustainable community. Primarily used to determine a CRA’s boundaries, a FON documents conditions of “slum and/or blight” which as *Figure 10* shows, are closely linked to health determinants.

Therefore, a window of opportunity may come when a CRA is planning to conduct a FON. Potentially, organized community members may influence CRA planning by requesting that dietary health conditions be included in the FON. For this reason, it is important for community members to evaluate a variety of conditions in their neighborhood, such as the relationships between poverty and dietary disease.

The [Florida Redevelopment Act of 1969- 163.360 \(4\)](#), provides an opportunity for civil society (e.g., individuals, nonprofit organizations) to prepare a community redevelopment plan for a CRA’s consideration. This does not mean that a CRA *must* adopt any plan put forth, but it does provide an opportunity for individuals and organizations to engage their CRA about ad-

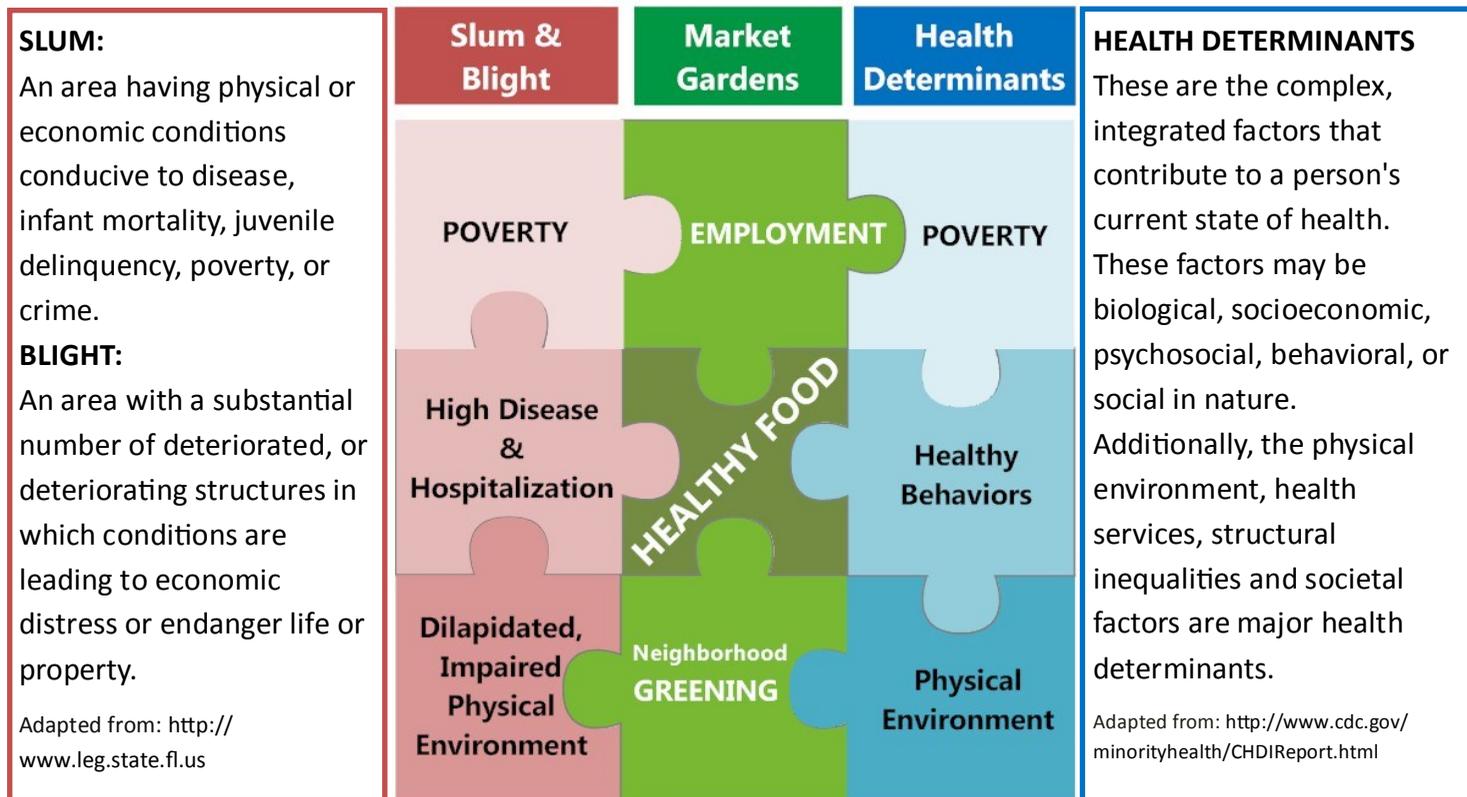
ressing healthy food access and other quality of life issues through the planning process.

Florida CRAs are not mandated to update their plans. However, since many CRAs do update their plans and conduct FONs every several years to adjust for changes in demographics, housing stock, and completion of redevelopment projects, there may be a window of opportunity for community members to organize and engage their CRA ahead of these planning cycles.

The chances that a CRA will consider a community-based plan involving Market Gardens may be increased by how well a group can argue that their proposals fulfill a public purpose (e.g., by mitigating slum and/or blight that may be characterized by chronic disease and poverty).

Florida: 163.360 (4) :
Community redevelopment plans
 “The county, municipality, or community redevelopment agency may itself prepare or cause to be prepared a community redevelopment plan, or any person or agency, public or private, may submit such a plan to a community redevelopment agency. “

Figure 10: Making the Connections Between Community Redevelopment and Improving Health Determinants with Market Gardens



Partnerships around Health Determinants

Healthcare statistics tell an interesting story about the connection that exists between our health and health determinants such as the physical environment and healthy behaviors. One study by the [Boston Foundation](#) shows that healthy behaviors, such as eating fresh fruits and vegetables, has a bigger impact on our health (37%) than any other factor, including our genes or access to medical care. The second most important factor is our socioeconomic and physical environment (22%), which includes the neighborhoods where we live and work. Together, that means almost 60% of our health outcomes are determined by the same issues that Market Gardens are seeking to address (see *Figure 11*).

Healthy Behaviors:

- CRAs and community partners working on Market Gardens seek to promote healthier behaviors and make the healthy choice the easy choice.
- Market Gardens promote healthy behaviors such as consuming fresh vegetables as well as engaging in the physical activity required to maintain the garden.

Socioeconomic and physical environments:

- CRAs and community partners can employ Market Gardens to make the neighborhoods more beautiful and sustainable, while providing jobs and healthy food.
- Market Gardens can improve the economic viability of the community, which in turn draws more high-value redevelopment projects.

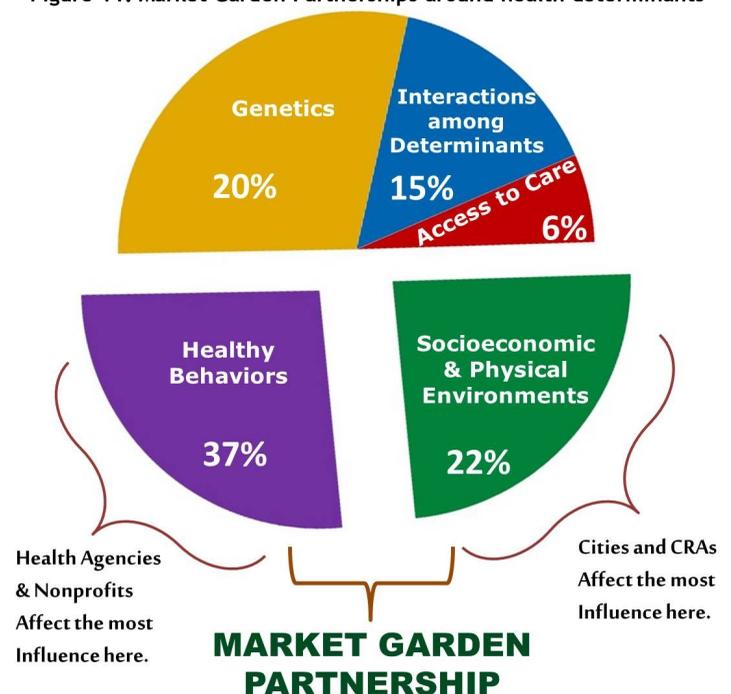
Diabetes: an outcome of Health Determinants

Diabetes is the fastest growing illness in the United States, and studies show it has an alarming connection to conditions of poverty and inequality.⁵ The most common form of diabetes,

Type II, is linked to health determinants such as an unhealthy food environment, poverty, obesity and lack of physical activity. Left untreated, diabetes can lead to a wide range of other serious health complications, such as heart disease, stroke, high blood pressure and kidney disease. Community Redevelopment Areas tend to have high concentrations of low-income residents, often with low access to healthy foods, who may have diabetes rates that are higher than their county's average. Market Gardens may be one way to address diabetes, by offering healthy food choices and encouraging physical activity. As a result, CRAs may consider including data about the relationships between income, proximity of grocery stores and dietary disease when they propose Market Gardens as a form of slum and blight mitigation.

Statistics from Broward County, FL, for example, provide strong evidence that many of the determinants of health associated with high diabetes rates are found in Community Redevelopment Areas. For residents within or next to a Community

Figure 11: Market Garden Partnerships around health determinants



The Realities of Urban Space



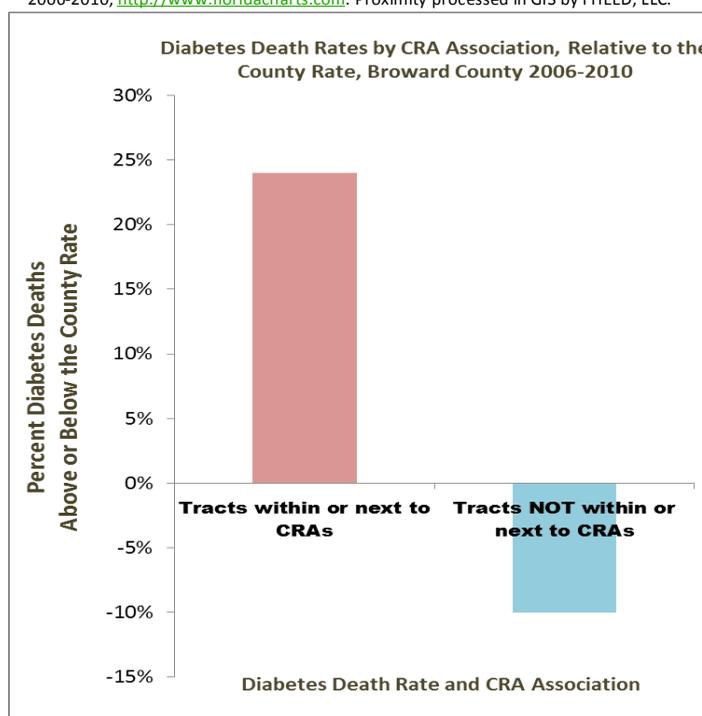
Redevelopment Area, the rate of death from diabetes is 24% higher than the average across the entire county. Residents not living near a CRA experienced diabetes death rates that are 10% below the average (Figure 12). An analysis like this can help to make the case for interventions like Market Gardens to improve access to healthy foods. Diabetes death data and maps can be acquired by census tract from FloridaCharts.com. Market Gardens, as an intervention in the built environment, must contend with the reality that undeveloped urban space is scarce and contested. Often when open spaces can be found, the competition for “winning” them can be fierce. The intended use of any one parcel must be measured against the “highest and best use” for the community, which often means contributing to a healthy tax structure for the city. For this reason, a commercial proposal that generates tax revenue is most likely to “win” the day. To ensure Market Gardens can compete with other urban uses, it is important to demonstrate how a Market Garden can be identified as serving the public interest. This is why it is important community members and decision makers understand a Market Garden’s ability to improve employment opportunities, community entrepreneurship, and health. A good place to start is with how Market Gardens improve Healthy Food Access.

Many factors can influence how easy or hard it is for residents to access grocery stores or other marketplaces for healthy foods. No doubt, anyone leaving their home to buy milk, bread or apples contemplates exactly how far they will travel to reach the destination. While proximity is a chief concern, others include the number of local stores, the affordability of local produce and the freshness of those options.

These four factors are identified in Figure 13, with details on how Market Gardens can address many of these deficiencies. It is important to keep in mind that proximity is the central component. If a Market Garden is located where it is needed in order to provide the greatest access, then all the other components should also work toward improving healthy food access.

Figure 12: Diabetes Rates and CRAs

Source: Diabetes Death Data by census tract for Broward County summarized from 2006-2010, <http://www.floridacharts.com>. Proximity processed in GIS by FHEED, LLC.



Community Redevelopment Areas are located in neighborhoods characterized by Slum and/or Blight, which include conditions of poverty, a major determinant of health.

Since CRAs tend to have concentrations of low-income residents, they also tend to have higher rates of diabetes compared to non-CRA areas.

Figure 12 above shows that census tracts within or next to CRAs have a death rate 10% LESS than the County average of 5.72 deaths per tract square mile.

By Contrast, tracts associated with CRAs have a death rate 24% higher than the County average.

This example from Broward shows the unique responsibility CRAs have to combat the Slum and Blight conditions responsible for causing acquired diabetes.

⁵ CDC Health Disparities and Inequalities Report — United States, 2011 <http://www.cdc.gov/mmwr/pdf/other/su6001.pdf>

Figure 13: How Market Gardens improve Healthy Food Access by improving the Built Environment

Food Access Component	Relationship to the Built Environment	How Market Gardens Improve it
<p>Availability</p>	<p>Availability means the number of healthy food sources or stores within a community. It is common for land use regulations (e.g. zoning) to separate commercial and residential land uses. The result can be communities with little to no food retail within their neighborhood. Many studies show that low-income neighborhoods tend to have fewer grocery stores and when they do exist, chronic disease rates are lower. One study found that for every supermarket, consumption for fresh vegetables increased as much as 32%.</p>	<p>Market Gardens make healthy food more available. Neighborhoods that may not have a healthy food source may be able to increase their healthy food consumption because of Market Gardens.</p>
<p>Proximity</p>	<p>Proximity is the distance <i>and time</i> between healthy food sources and stores and neighborhood centers. For example, because of the zoning of separated uses, many residential neighborhoods require one to walk more than twenty minutes, or take public transportation that is not time effective in order to acquire food. For low-income residents, who cannot afford an automobile, proximity barriers greatly contribute to their food insecurity, which increases their chances for chronic dietary diseases. For low-income residents who do own an automobile food security is perhaps even more precarious. Transportation studies show that low-income households (up to \$25,000), spend between 26% and 42% of their income on automobile-related expenses. This is more than they spend on food and rent combined.</p>	<p>Market Gardens, especially situated within neighborhoods, can decrease the distance and times it takes residents to acquire healthy food. This savings in time and distance can also decrease the costs associated with owning an automobile, or using time-consuming public transportation.</p>
<p>Affordability</p>	<p>Affordability is the cost of healthy food at these retailers in relation to the earning power of the surrounding community. For example, a low-income family living within walking distance to Whole Foods has healthy food available and within proximity. However, it is very unlikely that this family could afford the prices this retailer commands.</p>	<p>Market Gardens, especially if located on city-owned land, reduce many overhead costs associated with retailing perishable, fresh healthy food, such as packaging, transportation, refrigeration, storage, and marketing. These cost savings can be passed onto the consumer, and thereby make fresh healthy food affordable for low-income residents.</p>
<p>Quality</p>	<p>Quality is the freshness and nutrient density of healthy food. The longer fresh produce sits on the shelf, the more nutrients it loses. Fresh produce also retain more nutrients after cooking. For example, study by UC Davis found fresh broccoli loses 5% of its nutrients after cooking versus a 35% loss for frozen broccoli.</p>	<p>Because produce from Market Gardens is cropped only at the time or the same day of purchase, it retains the optimal freshness and nutrient density.</p>

Trends in Healthy Food Access



Overall, growth in community-based farming and urban agriculture has been strong in recent years. The American Community Garden Association reports the number of community gardens in the U.S. and Canada at 18,000, up from years past. In addition, the USDA reports the number of farmers markets rose nearly 350% from 1994 to 2012, to include 7,800 sites.

Another development of recent years has been the economic recession that hit the United States from 2007 to 2009. In that time, Americans turned more and more to supplemental food assistance from the federal SNAP program. In that same period, the number of farmers markets that are authorized to process SNAP purchases rose sharply.⁶ By 2011, the value of SNAP redemptions at farmers markets had quadrupled from just three years earlier. Businesses with a farmers market nearby experience an average annual increase in additional sales of anywhere from \$15,000 to \$19million, according to a Marketumbrella research paper published in 2012.⁷

Marketumbrella also found Annual Economic Impact on the Community to be \$72,000–\$56,360,000 per market.

This information is relevant for Market Gardens , because in many ways a Market Garden is a farmers market built into a small urban farm . Therefore, these positive changes are a strong indication that Market Gardens will see growth as they offer more affordable and healthy food to low-income residents. The key to ensuring healthy food affordability, in this case, is integrating the SNAP program into the Market Garden point-of-sales system.

Figure 14: Growth of SNAP authorized Retailers at Farmers Markets

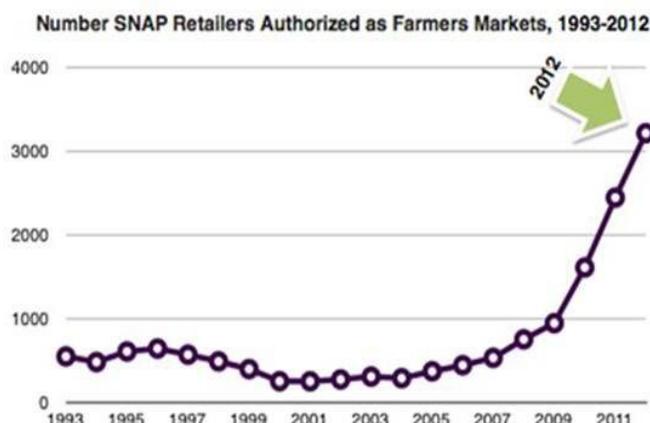


Figure 15: Grow Bags, or Jack Pots with Swiss Chard at PATCH



Figure 16: Healthy Cooking demonstration & lesson at PATCH



⁶ <http://farmersmarketcoalition.org/snap-redemptions-at-farmers-markets-exceed-11m-in-2011>. <http://farmersmarketcoalition.org/snap-sales-up-in-2012>.

⁷ <http://www.marketumbrella.org/index.php?mact=News,cntnt01,detail,0&cntnt01articleid=163&cntnt01returnid=83>

Summary

Preparing the soil may be only the first step in developing a successful garden, but it is also one of the most critical. Every other decision will build upon the planning, resources and care applied in those early actions. Likewise, CRAs and other organizations seeking to plan and implement Market Gardens must properly prepare their partnerships and planning efforts to ensure no opportunities are missed to advance the project over time, and reinforce the need to get those decisions right the first time.

The development phase is no doubt a broad effort, but it can be kept simple by remembering the three P's: Policies (assess and address them), Partnerships (develop strong, multidimensional ones) and Programs (create ones for the day-to-day operations as well as for the long-term health and vitality of the community). As with any community redevelopment endeavor, local policies and regulations will often determine what is possible and how the project can

be achieved. No CRA or local government agency can accomplish this effort on its own. Even the most seasoned urban operators will need to draw on the resources of partners in the community to identify land, source materials, harness laborers and ultimately draw customers to the Market Garden. Finally, a Market Garden is a tool for the community to learn, grow and build itself up, so the programs to do that need to have vision and support.

The following checklist will guide any organization in its quest to build a Market Garden, ensuring that the ground under its feet is healthy, fertile and free of hidden obstacles. By following the steps, CRAs and their partner organizations can avoid common pitfalls, save time, and maximize the positive impacts in the community.



Figure 17: Elementary students receive their ladybugs to release from BRHPC/TOUCH staff.

Checklist



Checklist



This comprehensive checklist provides CRAs, other local government agencies, and community-based organizations with a step-by-step guide to design and implement a community-based Market Garden. The seven steps of the checklist serve as benchmarking tools to help these partners move forward in a productive manner. However, the steps are not intended to be followed only sequentially by each partner. A CRA and its partners may work on several steps at the same time, while making preparation for later steps.

Each of the seven steps is then broken down, with a description, additional information and resources. Examples and lessons learned from Dania Beach PATCH are included as well.

The Checklist is also available on the companion website at touchbroward.org/marketgardenguide.

Included at the end of the guide is a link to 29 worksheets from the Environmental Protection Agency's (EPA) Partnership for Sustainable Communities: *Urban Farm Business Plan Handbook*. These 29 worksheets help guide organizations through each step of developing a business plan for an urban farm. They can also be helpful in organizing other steps along the way. Within the Checklist is a column that informs which EPA worksheets will help with which steps.

These worksheets and the EPA *Urban Farm Business Plan Handbook* are all available on the companion website.

For Worksheets, refer to the Urban Farm Business Plan Worksheets, available on EPA's urban agriculture website:

www.touchbroward.org/MarketGardenGuide

Checklist

The following sections break down each step of the *checklist*, provide useful resources to guide the Market Garden development and implementation process, give examples from PATCH, and share lessons learned from the PATCH experience. Although these lessons can be used for various kinds of community garden models, the following items are primarily geared toward a Market Garden.

Step 1 Market Garden Preparation

- ✓ Define the Vision, Mission, Goals, and Objectives — *Worksheet #3-5*
- ✓ Conduct a Needs Assessment
- ✓ Select a Garden Model
- ✓ Select a Site
- ✓ Create a Site Plan

Step 2 Establish Partnerships and Community Engagement

Partnerships

- ✓ Create a Decision Tree
- ✓ Establish Community Partnerships
- ✓ Establish Agency, Department, Organization Partnerships
- ✓ Establish Governance
- ✓ Identify Champions
- ✓ Develop Communication Pathways

Engagement

- ✓ Create a Community Outreach Strategy
- ✓ Engage in Capacity Building
- ✓ Develop Educational Programs

Step 3 Create a Detailed Work Plan

Operations:

- ✓ Choose a Growing Method and Systems
- ✓ Determine Crop Profile
- ✓ Design Garden Plan — *Worksheet #15-18*
- ✓ Determine Supplies Needed
- ✓ Determine Tools and Equipment Needed
- ✓ Develop Standard Operating Procedures
- ✓ Create a Budget — *Worksheet #23-29*

Infrastructure:

- ✓ Define Management Roles and Responsibilities — *Worksheet #6*
- ✓ Identify Workforce and Standards — *Worksheet #20-21*
- ✓ Identify Sources of Revenue
- ✓ Develop Greening Level
- ✓ Identify Potential Challenges/ Disasters
- ✓ Insurance

Step 4 Develop a Business Plan

Worksheet #1

- ✓ Provide an Overview — *Worksheet #2-5*
- ✓ Define Organization and Management — *Worksheet #6*
- ✓ Develop a Marketing Strategy — *Worksheet #7-14*
- ✓ Develop an Operating Strategy — *Worksheet #15-22*
- ✓ Develop a Financial Strategy — *Worksheet #23-29*
- ✓ Create an Executive Summary

Step 5 Review License and Permit Requirements

Licensing

- ✓ Obtain a Business License
- ✓ Zoning:
 - ✓ Determine Status of Land Use
 - ✓ Determine if Suitable for Planned Activities
 - ✓ Temporary or Permanent

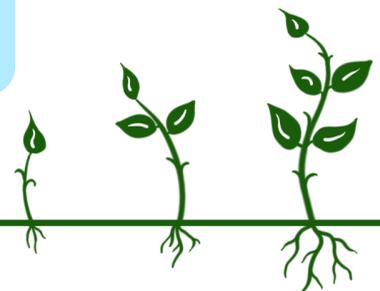
Establish a Timetable

- ✓ Identify Any Requirements for Agricultural Projects
- ✓ Permits:
 - ✓ Obtain Necessary Permits
 - ✓ Identify Any Qualification and Certification Standards

Step 6 Secure Funding

- ✓ Budget — *Worksheet #23-29*
- ✓ Funding Sources — *Worksheet #27-28*
- ✓ Maximize Tax Credits

Step 7 Implementation



Step 1 Market Garden Preparation

- Define the Vision, Mission, Goals, and Objectives — *Worksheet #3-5*
- Conduct a Needs Assessment
- Select a Garden Model
- Select a Site
- Create a Site Plan

Developing and implementing a Market Garden is no small feat and like any project or business, requires a lot of effort toward preparation in the beginning. The more that can be accomplished, addressed and determined in the beginning, the better prepared the project will be throughout the implementation process.

✓ Define the Vision, Mission, Goals, and Objectives

It is important to have a vision for the project, but it is even more critical to be able to describe it in clear, well-thought out statements that communicate the project's vision, mission, and goals. Developing these statements now, will help guide the preparation to implementation process and give the CRA a head start on the job of writing a business plan, to be covered in *Step 4: Develop a Business Plan*.

Here is a quick breakdown and resources on how to define the vision, mission, and goals:

Vision

A vision statement describes a vision for the future of the Market Garden and the values that will guide and direct the Market Garden and how it will operate in the community.

Worksheet # 3 in the companion site provides a guide on how to develop a vision statement for a Market Garden.

Mission

The mission states the purpose of the Market Garden and the expectations for what the garden will be known for in the future. A mission statement is measurable and serves as a benchmark by describing the overall goals and values of the garden.

Worksheet # 4 on the companion site helps to develop a mission statement for a Market Garden.

Goals

Goals are clear statements that describe what the garden would like to achieve and by when. Goals can be short-term, mid-term, and long-term to measure different phases of the market's growth.

Worksheet # 5 on the companion site will help define a Market Garden's goals.

Objectives

Objectives are the measurable building blocks upon which goals will be achieved. Objectives should be SMART: Specific, Measurable, Achievable, Relevant and Time-Oriented. Each objective should address who, what, where, when, why, how, and how much.

PATCH Example: Mission, Goals and Objectives

Mission

The mission of the PATCH is to represent a Place of Pride for the community of Dania Beach. PATCH will offer its immediate and neighboring communities with a safe, wholesome, fun, and beautiful place to gather, share, learn, and contribute, all while providing economic gains for its vendor partners, stakeholders and shareholders. PATCH will grow and sell its own products including fresh fruits and vegetables, herbs, plants and other agricultural products.

Goals & Objectives

1. Provide a safe, secure, attractive gathering place where healthy food, arts, entertainment, and education will be offered to the community.
2. Grow and Showcase locally grown produce and herbs.
3. Create economic opportunity for the residents of Dania Beach.
4. Highlight Dania Beach and encourage residents of neighboring communities to come and enjoy the place, products, and people.
5. Educate, inform, and cultivate a culture of healthy lifestyles with the goal of positively affecting the lives of local community residents through culturally relevant topics, activities, ideas, arts, foods, and merchandise.

The short-term (6-12 months) goal for PATCH is to lay the business and operational foundation for PATCH to become fully sustainable within 36 months.

The mid-term (12-24 months) goal for PATCH is to expand the operation by adding shelter, increasing the vendor mix, and expanding services to include CSA offerings, educational services, seedling sales, community garden starter kits, etc.

The long-term (24 mos. +) goal is to implement a food-hub/coop, entrepreneur incubator with a commercial kitchen under a permanent structure. Introducing more traditional grocery store attributes.

✓ Conduct a Needs Assessment

A Needs Assessment is a process that describes the way things are (the current conditions) and the way they could be (the desired accomplishment and described vision). Beginning a Market Garden with a Needs Assessment ensures thoughtful planning takes place. The Needs Assessment allows for the collection of information, analysis of it, and creation of the next steps and action plans.

When conducting a Needs Assessment, consider what information should be collected, how it will be collected, who should be part of the process and how this information will be used to inform constituencies, partners, planners and decision makers. Surveys, interviews, and focus groups can be used to collect information from individuals in the community and/ or key stakeholders. The BRHPC conducted a needs assessment by identifying neighborhoods that had overlapping occurrences of high diabetes and food deserts. This is how PATCH's neighborhood was identified.

✓ Select a Garden Model

It is important to select a garden model that aligns with the vision, mission, and goals of the project and fills the gaps identified in the Need Assessment. The garden model chosen should capitalize on the strengths of the partnerships, funding sources and zoning. Three common types of gardens are:

Market Garden

A market garden is typically a commercial enterprise that sells either on or off site and might include a farm stand or a Farmers Market depending on zoning and other restrictions. The goal of this model is to be profitable and financially sustainable. While a market garden may require a grant, public-private partnership or external funding for either initial setup costs or larger capital expenditures, it will primarily rely on its own revenue stream for day to day operations.

Community Garden

A community garden is a social enterprise with the goal of bringing the community together while growing fresh, local food. Community gardens are beneficial on many levels, such as providing access to fresh healthy foods, education, and neighborhood beautification. Perhaps one of the least recognized benefits of this model is that it places more eyes on the street, creating a safer environment for the community. Community gardens can be built into a Market Garden, which can increase interaction amongst neighbors, and thereby create a sense of community.

Hybrid Market Garden

A hybrid market garden is the synthesis of the market garden with a Farmers Market, and the community garden with an educational component added. The educational component usually goes beyond just having an event or two, it is something more long-term or permanent to help build the capacity of those in the community to grow, create value-added products, market and sell those products. It is akin to having skill development workshops, a professional teaching kitchen and demonstration area, and the location for sales all in one location. It provides access to healthy food while creating opportunities for economic development. In addition, educational kiosks can advertise upcoming events, share information with the public regarding the hybrid Market Gardens and serve as a central point for communication.

✓ Select a Site

Choosing the right site is important to the success and vitality of the Market Garden. The land should not only be suitable for growing (for example adequate sunlight and access to water), but should be in the right location within the community. There are a few important considerations to take into account when selecting a site for a Market Garden:

- Viability
- Visibility
- Accessibility
- Suitability
- Serves as a community space
- Addresses “blight and slum”
- Nearby community partners
- Parking
- Shelter
- Traffic
- Transportation options
- Aesthetics
- Competition



If the Market Garden model has a social component, then the location selected should be identified by the community. Accessibility and visibility become important considerations if a profit element is part of the business model. Degraded land, such as brownfields or Greenfields provide an excellent opportunity to revitalize an otherwise underutilized piece of land. It might also qualify the project for additional funding assistance for development. The method of planting should consider potential contamination, testing for contamination, and a

plan to provide for above-ground and barrier containment if the soil is unsuitable for growing.

Specific to CRAs is the need to address “blight and slum.” It has been shown that planting a community garden improves property values of adjacent properties.⁸ When zoning allows for gardening, Market Gardens, and/ or Farmers Markets in residential areas, it provides an opportunity for a potential entrepreneurial enterprise within walking distance of the local community.

It is important that the site or sites identified have multiple advantages. It is the synergy of environmental, economic, and social issues addressed simultaneously that will directly address larger socio-economic and cultural issues within the community overall. A Market Garden is an opportunity for community partners to create an impact with a multi-layered, multi-pronged approach.

✓ Create a Site Plan

A site plan lays out the logistics of a Market Garden and can be as simple or as complicated as deemed necessary. Site planning includes planning for:

- Garden name
- Garden signs
- Garden boundaries
- Garden beds
 - Location
 - Raised vs. In-ground
 - Size
 - Which plants will be in which beds
- Water source
- Trash receptacles
- Recycling bins
- Compost bins
- Sheds
- Storage
- Public spaces
- Shared spaces (if it is decided to rent out a part of the garden)
- Driveways
- Walkways
- Decorative or functional vegetation (for shading)
- Adjacent buildings, streets, walkways

The site plan should show, depending on the model selected for the garden, where these different components will go (i.e., Farmers Market, parking, etc.). Locating a Farmers Market on site with a market garden is advantageous in that it eliminates the time and expense of being at an offsite location. A disadvantage may be that it receives less traffic therefore requires additional marketing.

One of the biggest impediments to success cited for underserved populations is access to reliable transportation. Therefore, the locating of the Market garden should strongly consider accessibility



⁸ Been, Vicki and Voicu, Ioan. “The Effect of Community Gardens on Neighboring Property Values”, paper No. 46, <http://nccommunitygarden.ncsu.edu/researchBeen&VoicuEffectof%20CG%20of%20Property%20Value.pdf> 2006, Web 9.29.13

PATCH Perspective and Lessons Learned

Transform the Vision to Concrete Ideas

In 2008, the Dania Beach CRA held a meeting with local communities. During this meeting, the Sun Garden Isles community requested a community garden.

However, the Dania Beach CRA pursued PATCH, initially as a Market Garden for community economic development purposes. PATCH will acquire the community garden component between 2013-2014.

LESSON LEARNED: Give people what they've requested – even if initially it is on a small scale.

Define the Vision, Mission, and Goals

The vision of PATCH is to provide access to high quality, healthy local food while improving economic development conditions to directly address blight and slum in the community. PATCH's mission is to represent a "Place of Pride" for the community in Dania Beach. Short-, mid-, and long-term goals aim to create sustainable business practices, provide educational programs, and offer Community Supported Agriculture (CSA) and food hub services to the community. Additionally, as Jeremy Earle, Executive Director of the Dania Beach CRA, stated the goal of PATCH is to "dot the city with PATCHs" by becoming a replicable model for sustainable community economic redevelopment.

LESSONS LEARNED: The vision, mission, and goals for PATCH were clearly outlined for PATCH and have guided the work being accomplished.

Conduct a Needs Assessment

The needs assessment for PATCH included GIS mapping of determinants of health that indicated a higher than county average of diabetes and poverty. In addition, the PATCH is located in an USDA-defined Food Desert. The partnerships were also assessed to determine where additional partners should be added. PATCH also used interviews as tools for measuring this need. Once these assessments were performed, the information was synthesized into a summary of what was needed and how implementing these action items would help the project meet its goals.

The needs assessment demonstrated the overwhelming socioeconomic and health needs for the PATCH. The desires of the community as it relates to programs for economic development, training, gardening and health were not adequately explored so these are now being assessed.

LESSON LEARNED: Ask the residents what specific kinds of programs they would like to see at the garden.

Select a Market Garden Model

PATCH was originally designed as having a community garden, with an urban farm, a Farmers Market, and a research and education center, kiosk, and teaching kitchen. PATCH was meant to engage, educate, and provide a variety of benefits for the surrounding community. PATCH is still in the process of exploring the options of becoming a food hub that includes either a CSA or co-op model and selling wholesale. The final model for PATCH is a hybrid market garden which presently has a Market Garden and Farmers Market, with plans for a community garden to be installed and a Training Pavilion to be built in 2013-2014.

PATCH Perspective and Lessons Learned

When Selecting a Site, dream big, start small, and plan for incremental growth.

PATCH is located on the “perfect” site for inspiring community involvement in the removal of blight. The 1.6 acre, vacant, blighted site that would become PATCH was identified by the Dania Beach CRA, with the help of the community and was already owned by the city. The property had been vacant for some time, and had become overrun with vegetation, pests, and garbage.

PATCH offered the community an opportunity to transform the blighted, vacant lot into an appealing and useful community space. Adjacent to many single and multi-family housing units, with several churches nearby, and a community park a block away, it is an ideal location to build a Market Garden near already existing natural community gathering spots.

Although PATCH’s site is strategically ideal, it is not without its challenges. These challenges can become overwhelming for community members if they do not have a local government partner. For example, PATCH’s site originally lacked electricity, and had some low lying areas where drainage was an issue. Therefore, the Dania Beach CRA obtained the necessary permits in order to re-grade and add electricity. Although PATCH is embedded deep within the neighborhood, this also means PATCH faces issues of visibility and adequate foot traffic for the Farmers Market. Therefore, PATCH has used additional marketing and promotion to improve attendance.

LESSONS LEARNED: The “perfect” site may require additional improvements (grading, drainage plans, and utilities). If a Farmers Market is planned, a site with visibility and “traffic” is beneficial to marketability and sustainability.

Step 2 Establish Partnerships and Community Engagement

Partnerships

- Create a Decision Tree
- Establish Community Partnerships
- Establish Agency, Department, Organization Partnerships
- Establish Governance
- Identify Champions
- Develop Communication Pathways

Community Engagement

- Create a Community Outreach Strategy
- Engage in Capacity Building
- Develop Educational Programs

✓ Partnerships

Partnerships create a network of support and make resources available that allow for a project to be successful. These can be formed in various ways. What is most important to consider in partnerships is how to build on the strengths of each partner so each contributes what it does best.

Although this section is listed as Step 2, begin thinking about who to partner with and creating relationships with these potential partners at the very beginning of the project. Also, just because “partnerships” are listed as the second step in the *preparation to implementation process*, it does not mean that once they are in place that the work is done. Working to develop and maintain partnerships is an ongoing process throughout the life of the project. Partnerships will evolve, new ones will be formed, and old ones may end; but the work needed to engage and strengthen partnerships is a constant.

✓ Create a Decision Tree

Decision trees are a very useful and efficient tool that depict a holistic perspective on what considerations and processes are involved in working from preparation to implementation. While the decision tree illustrates that there are multiple points of entry, it also emphasizes that there are common nodes along the way that provide clear platform opportunities from which partners can establish and build upon a solid framework of collaboration.

✓ Establish Community Partnerships

Community partnerships are absolutely essential to the success of a Market Garden. The foundation for these partnerships should be set early on in the project. Identify community groups, organizations, and institutions that would have a stake or interest in the Market Garden. For example, if there is a local non-profit that puts on job training programs for teens in the community, consider partnering with them if a Market Garden plans on doing a job training program or engaging local teens in teaching them new skills.

✓ Establish Agency, Department, Organization Partnerships

Establishing partnerships with government agencies, departments, and organizations can be very useful in helping navigate government rules and regulations on starting up a Market Garden. There may be many steps in the process of applying for and receiving approvals from the government to start an agricultural project, like zoning changes or the inclusion of language in a CRA five year plan. Especially for municipalities and CRAs, an understanding of the levels of time and commitment of resources to this process is critical. Developing partnerships with agencies, departments, or organizations early in the process can positively contribute to distributing some of these direct and indirect costs and time amongst the partners.

✓ Establish Governance

Establishing governance for the project determines who will have say in the process of running the Market Garden and how it will be structured. Consider including representatives from key stakeholders, like community members, community organizations, partner organizations, and the CRA to make sure the interests of all parties are considered in the running of the project.

✓ Identify Champions

Identifying the champions and key stakeholders is key to the success of a Market Garden. These champions should be from both the community and local government. They should be personally invested in and passionate about the Market Garden to ensure when issues arise there will be a positive force to help navigate the challenges, and maintain enthusiasm, momentum, and focus. These champions may be residents from the community, community leaders, and/ or members of local government. Whoever they may be, cultivate a relationship with these individuals to develop project support and partnership.

✓ Develop Communication Pathways

Communication in partnerships is two-fold: 1) the roles, responsibilities, and expectations of each partnership

should be communicated clearly from the start of a partnership, and 2) communication during the partnerships should be clear and effective.

Establishing how communication and decisions will be handled is key to efficient and sustainable partnership collaborations. Taking a Market Garden from an idea to preparation through implementation can consume lots of time, resources, and patience. This makes understanding each partner's expectations, strengths and limitations all the more important. It is essential to ensure there are always open lines of communication.

Community Engagement

It is important that a formal approach be taken to engage the community and that this be started very early on in the preparation process. As key stakeholders in the Market Garden, the community's residents will help implement change through their input and active participation in the *preparation to implementation process*. This positive and candid community engagement is critical throughout the entire process and should remain ongoing.

✓ Create a Community Outreach Strategy

A community outreach strategy that engages the community through informational, educational, and awareness-raising activities should be developed early in the process of developing a Market Garden. Think about what kind of community outreach has worked in this community in the past and how people receive messages about local events, whether it is online, from posters, or in the local paper. The following strategies for community outreach are essential and should be executed in an organized and methodical manner:

- Fliers and posters in local businesses and around the community
- Social activities/ events
- Information on CRA, municipality, and organization websites
- Educational programs
- Campaigns on social media platforms like Facebook and Twitter
- Email blasts/ newsletters

Social media is a powerful and effective tool for conveying information to a wide audience and gaining and keeping support if done right. Creating social media pages specific for a Market Garden can help increase exposure. Using a personal social media page as "the" Market Garden's site, should be avoided. Support from social media can include press coverage, opportunities for sponsorships, links to organizational websites, distributing newsletters, and advertising about upcoming events, workshops, and educational programs. Remember to keep the key messages as clear and free of self-interest promotion as possible unless that is the point. This area is where non-profits, governmental, and private entities typically experience some friction.



PATCH Example: Community Outreach Strategy

Marketing: Community Outreach

Outreach is integral to establishing PATCH as a pillar in the community. The Marketing Team implements an outreach plan that is targeted at existing trusted institutions, including:

- Local Businesses
- Places of Worship
- Community Centers
- Schools
- Police and Fire Departments
- Service Organizations
- Boys and Girl Scouts
- Sporting Leagues

The following are useful methods to communicate garden-related activities to the Outreach targets:

- Take out ad spot in their monthly newsletters and bulletin boards;
- Hold public tours of the garden, inviting key community officials;
- Announce Harvests and make them a celebration;
- Story-board garden activities with photos, videos, and call-outs;
- Hold “All-hands-on-Dirt” Days asking the community to come and help with larger projects;
- Promote through public announcements that go out over radio, TV, newspaper, and free local publications.

✓ Engage in Capacity Building

Engaging in capacity building throughout the preparation and implementation process will help the CRA, the community, and CRA partners identify and meet challenges that will arise during preparation and implementation. Here are some places to look to build the capacity of the project:

Local Community Organizations and Cultural Entry Points

Any natural gathering spot such as cultural events, community centers, religious institutions, and public platforms are ideal for information-sharing and gathering support for a Market Garden. This is a resource that should be maximized because the return benefit can be enormous with little to no cost.

Community Advisory Council

Community Advisory Council, Home Owners Association, neighborhood civic associations, and local community and city boards can all play an important role in building capacity.

Failure to involve and receive the support of these key stakeholders, like the local HOA, while designing a Market Garden in the area would be a missed opportunity.

✓ Develop Educational Programs

Educational programs are fundamental to the community outreach strategy and are a key component of the hybrid market garden model. Whether the project follows the hybrid model or another model, educational programming is a component that should be considered for inclusion in a Market Garden project. These programs provide a strong level of community engagement and sense of ownership while giving back to the community in the form of knowledge and skills that they can use to put back into the community and/ or carry with them into future educational and career opportunities.

Educational programs work best when interactive and designed to appeal to a broad audience. Community gardens can serve as an outdoor classroom where youth can learn valuable skills like those involving practical math, communication, responsibility, and cooperation. These programs also provide the opportunity to learn about the importance of community stewardship and environmental responsibility. The CRA and partners should look for elementary, middle, and high schools for partnerships. Tagging onto existing programs and events will minimize direct costs and increase the level of participation.

PATCH Perspective and Lessons Learned

Partnerships & Decision Diagrams

PATCH created a decision path that can be found on page 8.

LESSONS LEARNED: It is okay for partnerships to evolve as the Market Garden does, but having a key core team of partners is essential. Such diagrams can assist with forming partnership.

Establish Community Partnerships and Establish Agency, Department, Organization Partnerships

The Dania Beach CRA (DBCRA), BRHPC with the TOUCH initiative's more than 20 community organization partners along with local businesses, professionals, community residents and volunteers demonstrate the breadth of partnerships working on PATCH.

LESSONS LEARNED: Partnerships with local agencies, governmental departments and community-based organization and local residents helps to facilitate success.

Establish Governance

The governance of PATCH has and will continue to evolve as it becomes completely self-sufficient and sustainable. The chain of command and communication has not always been as clear as they could have been. To this end, additional time has been spent to engage an Advisory Council in cooperation with the DBCRA to serve in a governance over the Market Garden. The Council is comprised of local residents; some experienced in farming who are of great assistance to PATCH. Because of the financial obligations, the City, the DBCRA and a contractor are governing the Farmers Market.

LESSONS LEARNED: Establishing governance and a clear chain of command is imperative, particularly in a fluid situation as found in developing a Market Garden.

Identify Champions of the Cause

Champions have been identified and are engaged in the work of PATCH. These champions include leaders in the city, healthcare, food systems planning, gardening and economic development. However, the most important champions are residents, who make PATCH a true community-based project.

LESSONS LEARNED: The greatest Champions are residents.

Develop Communication Pathways

Effective communication requires using various methods. To this end, the communication plan ensures internal and external pathways are used to deliver messages to partners, residents and the PATCH's governing bodies. Although it is difficult to control informal pathways of communication, it is imperative to be aware of what is being said so that more formal methods can address misconceptions quickly.

PATCH Perspective and Lessons Learned

Effective communication also requires having a common “language” and definitions. For example, initially, PATCH

was described as an urban farm. The use of the word “farm” for some can conjure up images of tractors, the smell of cow manure, noxious pesticide spraying, and dangerous tools. For others, the words “urban” and “farming” together are an oxymoron. Not surprisingly, some Dania Beach community residents, imagining traditional farm machinery, pigs, horses, and chickens, perceived PATCH as being a potentially noisy, smelly, and dirty addition to the neighborhood.

Communication between PATCH’s governance, partners, and residents continue to evolve and be refined.

LESSONS LEARNED: Define terms so all of those engaged in the Market Garden understand the context-specific meanings of the words used to describe the work. Create opportunities for formal meetings and informal conversations to limit misconceptions.

Community Engagement

Create a Community Outreach Strategy

The community outreach strategy must be placed based. For PATCH, and the demographics of those living in the area in which PATCH is located, it would be a mistake to rely only on communication that is computer- and internet-based.

Access to computers and the internet is often limited for many members in the community, so it is important to also rely on the use flyers, word of mouth, and existing community organizations and institutions to get the word out about produce, activities and events.

It is critical that the community remain engaged and be given opportunities to provide input on a consistent and constant basis throughout the entire process from preparation to implementation. Efforts to solicit community support and build civic capacity is imperative and necessary for the long term success of PATCH.

LESSONS LEARNED: Use multiple channels and pathways to distribute information.

Engage in Capacity Building

Capacity building is a long-term goal which included engaging the three churches, community center, and several multi-family complexes located within one quarter of a mile of PATCH. As the Dania Beach CRA moves forward with its plans to complete PATCH, it has hosted several community meetings to inform the local community of PATCH’s business plan and actively solicit feedback. As each step moves forward, there will be a continued effort to keep the public up to date and involved.

Develop Educational Programs

This essential element to hybrid Market Gardens did not occur before the implementation of PATCH and has proven to be difficult. In addition, once production started, it became clear that basic math skills were needed by those who worked in the garden or farmers market.

LESSON LEARNED: Understand the individual needs of the Market Garden employees and provide educational opportunities as soon as is possible for those who may be employed by the Market Garden. Be prepared to provide very basic math lessons and build slowly. Be patient.



Step 3 Create a Detailed Work Plan

Operations:

- Choose a Growing Method and Systems
- Determine Crop Profile
- Design Garden Plan — *Worksheet #15-18*
- Determine Supplies Needed
- Determine Tools and Equipment Needed
- Develop Standard Operating Procedures
- Create a Budget — *Worksheet #23-29*

Infrastructure:

- Define Management Roles and Responsibilities — *Worksheet #6*
- Identify Workforce and Standards — *Worksheet #20-21*
- Identify Source of Revenue
- Develop Greening Level
- Identify Potential Challenges/ Disasters
- Insurance

Create detailed standard operating procedures (SOPs) before starting a Market Garden. Taking the time to develop SOPs will make it much easier to implement, document and revise them as the Market Garden evolves. The SOPs should also be included in the business plan.

✓ Choose a Growing Method and Systems

The methods of growing are as varied as the climates in the U.S. It is less important what method or container is used as long as it fulfills the initial vision and suits the particular climatic and geographical location of the Market Garden. Each system has its advantages and disadvantages.

There are different types of growing methods or planting systems like raised beds, square foot gardening, jackpot bags, and the traditional garden approach of growing in one large patch of soil. Hydroponics and aquaponics are both water-based systems, with the latter including a symbiotic system with fish. The method of permaculture includes a philosophical understanding and application of sustainability by creating seven layers that constitute a food forest.⁹ Permaculturists will sometimes plant directly into the ground which may not always be advisable if the land is a brownfield or is severely nutrient depleted. Trellis can be a beautiful and productive way to grow as it fills vertical rather than precious horizontal space. Vertical systems can help to yield a higher amount of production in less space.

For more information on methods and systems, refer to the Resources section.

⁹Permaculture <http://en.wikipedia.org/wiki/Permaculture>, Web 9.26.13

Wooden boxes and concrete blocks are usually used to create plots of four feet by either six or 12 feet to allow for easier access. Wooden boxes are more traditional. Be sure to avoid pressure treated wood; instead use a non-permeable barrier inside the box. Chemicals used to treat the wood can leach into and contaminate the soil. The downside to using untreated wood is that eventually it will decay and will need to be replaced.

Concrete blocks are an interesting alternative as they are more durable and last longer than wood; however, they will leach lime into the soil. If the soil is acidic this can be beneficial, but if it is alkaline, it can be too much. A recommendation might be to include a non-permeable barrier inside the box. Filling the holes in the block with soil can provide a perimeter of plant resistant plants such as scented marigolds.

The method of planting should consider potential contamination and plans to provide for above ground and barrier containment.

✓ Determine Crop Profile

The crop profile should take into account what types of fruits, vegetables, and herbs the community currently eats, what the local consumers' request, and space availability on the selected site. Determining what the community would want to grow or buy can be done through a Needs Assessment or by doing a simple survey of community members. Take into account cultural differences between different neighborhoods in the community that could lead to the need to provide a variety of produce to meet the whole community's needs.

✓ Design Garden Plan

Designing a garden plan incorporates a few different aspects of gardening. The plan creates the layout or blueprint of the garden, specifically representing how the garden will be laid out. This requires measuring the garden and planning where each element of the garden, like grow beds, walkways, sheds, and fences, will be placed. Start at the ground level, with soil, grass and paving materials, and build up to upright structures, like fences, bushes and furniture, and end with coverings, like trees and awnings.

The garden plan also includes a schedule on when to plant, how many crops, a harvesting plan, and a rotation plan. The rotation plan changes the location plants are grown from year to year. Crop rotation is important because it prevents the soil from becoming prematurely depleted of key nutrients. There are different harvesting methods and schedules depending on the plant.

Worksheets #15 (Crop Management) - #18 (Yield: Size and Capacity) will assist in developing and tracking a garden plan.

PATCH Rotation Plan

Vegetable	Location	Quantity	Plant Date	Days to Harvest	First Harvest
Anahu tomato	A1-25	72	Aug 24, 2013	95	Nov 27, 2013
Basil	B1-25	25	Aug 24, 2013	75	Nov 7, 2013
White spear	C1-25	144	Aug 24, 2013	65	Oct 28, 2013
White spear	D1-25	144	Aug 24, 2013	65	Oct 28, 2013
Southern collards	E1-25	144	Aug 24, 2013	50	Oct 13, 2013
Eggplant	F1-25	TRUE	Aug 24, 2013	0	Aug 24, 2013
Okra	G1-25	TRUE	Aug 24, 2013	0	Aug 24, 2013
Dino kale	H1-25	144	Aug 24, 2013	50	Oct 13, 2013
Dino kale	I1-25	144	Aug 24, 2013	50	Oct 13, 2013

Monthly Market Garden Advice from PATCH By Rachelle Lawson, PATCH Market Manager

January	Adjust crop rotation plan for this year's market. Organize price checks from different stores. Decide on where certain crops will be planted based on sunlight and shaded areas. Select certain seeds based on market sales from last year and customers' choices.
February	Readjust schedule to fit the new year as far as what's planted. Gather supplies that may be used. Inventory potting and planting trays. Figure out the amount of seedlings needed for next planting season.
March	Check for irrigation problems and change out old fixtures. Adjust bags for next growing season. Add more soil for extra nutrients. Find some distributors to supply the Market Garden stand with organic produce at whole sale prices to prepare for the shortage of crops that will be growing in the
April	Start Checking for pest and insects in the garden. Treat with an organic compound. Clean grounds to prepare for planting. Tomatoes can already be planted in trays or in the bags. Select seeds that are best for this growing season.
May	Check market equipment such as tables and tents monthly. Prune tomato and pepper plants often. Check for caterpillars and other pesky insects that may damage crops. Check for rot. Spring and Summer seem to be the worst time for pests.
June	Summer months are the hardest selling times for market sales, so focus on okra, peppers, herbs, and other summer growing crops. Prepare for market orders. Price cards, display and signage. Advertise the garden and its produce that will be sold. Recruit students for volunteer services hours during the summer.
July	Harvest old crops and prepare for fall planting. Adjust signage in the garden and make sure there is a full supply of seeds, soil, trays and tools to get started. Check compost beds and rotate them.
August	Add some compost to the soil. Adjust record keeping on where new crops will be placed for fall. Continue to have volunteers come out. Start planting pumpkins to be ready for Halloween and Thanksgiving Activities.
September	Prepare Garden house for early frost. Order supplies to be used to protect tomato plants from the cold weather. Call Vendors and invite them to sell at the garden for Halloween and Thanksgiving activities.
October	Harvest old plants. Clean grounds and sweep around bags. De-weed as needed.
November	Continue planting. Maintain Garden by de-weeding, cropping and pruning. Re-check irrigation and main shut off valves to make sure plants are properly watered.
December	Protect seedling and crops with special plastic and garden hoop houses.
Special Days	Earth Day, Memorial Day, Food Day, October Fest, Thanksgiving
Weekend Special Offers	Give coupons on 10% discounts for customers who spend \$10.00 or more.

✓ Determine Supplies Needed

Market Gardens require a considerable amount of supplies. Determining which supplies the urban market garden needs and how much is an important step in planning for and developing a budget early on in the process. This will help when it comes time to develop the financial strategy for the business plan.

Supplies include the resources needed to set up the infrastructure of an urban market garden and run it on a day to day basis. These supplies will include:

- Seeds
- Soil
- Fertilizer
- Tools
- Equipment
- Containers
- Storage bins
- Bags
- Pallets for building a compost box
- Wood for above ground beds
- Display materials
- Security materials (locks, cameras, motion sensor lights)

✓ Determine Tools and Equipment Needed

Market Gardens also require a considerable amount of tools and equipment. Determining which tools and equipment are needed and how much is an important step in planning for and developing a budget early on in the process. This will help when it comes time to develop the financial strategy for the business plan.

Garden tools needed for a Market Garden may include:

- Shovel
- Trowel
- Rake
- Hoe
- Wheel barrows
- Stirrup hoe
- Stakes
- Trellises
- String
- Wire
- Gloves
- Clippers
- Hose
- Plant trays
- Watering can
- Spray bottles
- Pitchfork
- Pots

Tools are one of the most important parts of a successful market garden and Farmers Market operation. However, many times choosing tools and equipment is one of the last components of operating a garden to be considered or not enough money is allocated to purchase adequate tools. The proper tools are essential to developing the garden and growing the produce. Improperly stored tools exposed to the elements will shorten their useful life. Not enough or the wrong tools can make day-to-day tasks more laborious and lead to higher labor costs and lower productivity. This is not the portion of the budget to try to reduce costs.

✓ Develop Standard Operating Procedures

The standard operating procedures (SOP) for a Market Garden include the day to day operations, policies, and procedures that ensure a smooth running operation. It is absolutely critical that accurate, written records and details are kept of seedling sowing, planting, and harvesting. This will control for and ensure steady and adequate production and provide an analysis of which crops are profitable and which are not. SOPs can also form the basis to create job descriptions for positions necessary for running the Market Garden. Refer to the Resources section for more information on developing a SOP.

✓ Create a Budget

Determining a budget is generally the number one concern when deciding to pursue the development of a Market Garden and Farmers Market. During the preparation process, determining what method or system will

be used, what materials are needed for construction, what seeds are needed, and what tools and equipment are required will help inform the budget development for the Market Garden. The budget should reflect startup, maintenance, and operating costs. Additionally, include capital improvements and planned phase improvements in response to a successful and expanding operation. These should be line items in the budget along with any potential revenue.

“Veggie Compass” is a great tool when developing a Market Garden budget. This farm management tool helps “growers improve on farm decision making and financial farm planning in order to maximize profitability and ensure the continuation of sustainable farms.”¹⁰ With labor data forms, sales forms, and a spreadsheet that calculates product costs for each crop and its profitability, “Veggie Compass” is a valuable tool to all new and existing Market Gardens . Information on “Veggie Compass” is available in the Resources section.

Developing a budget now, will be helpful when planning the financial strategy for the business plan and when applying for funding.

Worksheet #23 (Expenses) - #29 (Risk Management) are valuable resources in planning the budget for a Market Garden.

✓ Define Management Roles and Responsibilities

Determining who will be responsible for managing and running the Market Garden is an important part of the preparation process. Typically, for a hybrid market garden model, like PATCH, these responsibilities fall on two key positions, the Market Garden Grower and the Farmers Market Manager. Below is a brief description of these two positions.

Market Garden Grower

The responsibilities of the Market Garden Grower are to implement the SOP to ensure a smooth running operation. Keeping good, detailed, accurate, and continuous records is critical to achieve this. The crop rotation plan, seedlings schedule along with any applied organic pesticide or compost/fertilizer must be constantly monitored and communicated by the Market Garden Grower in a way that is clear to everyone involved in the day to day operations.

Farmers Market Manager

The role and responsibilities of the Farmers Market Manager are extensive and require a clear understanding of the market garden operations. This person is active in community outreach and educational initiatives, soliciting and managing vendors, and identifying funding sources for capital improvements. Having a sound business background is beneficial. Skills in marketing and social media are critical to developing and maintaining effective marketing platforms.

Worksheet #6 (Organization and Management) will help to define the ownership and management of the Market Garden.

✓ Identify Workforce and Standards

Labor is usually the number one cost for an agricultural project, so learning how to manage this particular cost is essential to becoming financially solvent.

¹⁰ Veggie Compass: General Information. <http://www.veggiecompass.com/>. Web 10.16.13

Preparing for a Market Garden's labor, includes developing the following:

- Job Descriptions
- Hiring, Firing, Review Processes
- Training
- Volunteer Coordination

The skill requirements of both a Market Garden Grower and Farmers Market Manager encompass a wide range of experience, from understanding agriculture production to marketing and sound business skills. The development of the job description is important and must thoroughly be described to the applicants. Job descriptions for any additional paid positions should also be developed, with the input of the Farmers Market Manager and Market Garden Grower.

Developing a training manual along with an employee manual will clarify the Market Garden's operating procedures. Processes and protocols for hiring new employees, firing ones that are not working out, and formal reviews should be clearly developed. Sales training is important to developing excellent customer service that will maintain a loyal customer following. Genuine friendliness and developing a rapport with repeat customers will generate rewards in the form of steady business and glowing referrals.

The soliciting, management and coordination of volunteer efforts can be incredibly important to the Market Garden, but it can also be time consuming and a bit frustrating at times. If possible, a local non-profit could assist in providing volunteers and help with coordination. Volunteers can be an invaluable resource for reducing costs associated with large and small garden tasks, building community support, offering word of mouth referrals, and providing recommendations. A reciprocal benefit for the volunteers is the opportunity to earn service hours and learn where produce actually comes from.

Worksheets #20 (Manpower Needs) - #21 (Workforce Needs) will help outline the specifics of a Market Garden's labor needs.

✓ Identify Source of Revenue

In a study conducted by Hardesty, 2008,¹¹ it was found that labor was the highest marketing expense for all farms ranging from 67% for wholesale marketing to 82% for Farmers Markets. Farmers Markets generated the lowest net revenue return for all three growers (wholesale, CSA, and Farmers Market methods), while wholesale provided the highest net return for all. Exploring options for sources of revenue for the project, like whether to include a Farmers Market, a CSA, a cooperative (co-op), a food hub, or through direct or indirect sales to wholesale or restaurants, depends upon the type and goal of the agricultural model.

Farmers Market

Farmers Markets can be located either on a market garden site or off site and can sell produce from a farm and/or garden directly to customers. These markets can also have different types of vendors, including agricultural, craft, and artisan food vendors. Location, accessibility and visibility are key for the success of a Farmers Market.

Community Supported Agriculture (CSA)

In a CSA, the customer pays a set amount, usually at the beginning of the season before a harvest has taken place, for a weekly basket share of the farm's produce. This can be a win-win situation for all involved as this method provides a steady revenue stream for the market garden and fresh produce for the CSA consumer on a regular basis.

¹¹ Hardesty, Shermain, "The Growing Role of Local Food Markets", U. of California, Davis, <http://agecon.ucdavis.edu/people/faculty/shermain-hardesty/docs/the-growing-role-of-local-food-markets.pdf>, 2008, Web 9.29.13

Co-op

A co-op usually operates as a collective membership that might operate from a retail location.¹²

Food Hub

A food hub aligns several agricultural models together usually including multiple growers, added value products and distribution capabilities.

Restaurants or Wholesale

Before deciding whether to sell to restaurants or at wholesale, it is important to track direct and indirect sales. Again, each has its advantages and disadvantages, restaurants will demand top quality, more frequent deliveries and wholesalers can buy quantity at reduced prices. It is imperative to know whether the crop production can meet the ongoing needs of restaurants or distributors prior to considering sales.

✓ Develop Greening Level

Developing the green level for a Market Garden depends on how environmentally-friendly the model will be. Recycling and managing garden waste, such as by composting, pickling vegetables, and making jam, help to reduce waste. Providing recycling receptacles for waste around the garden and encouraging customers to reduce waste, for example by bringing their own reusable bags, will help to reduce garbage. Consider irrigation methods, like rain water harvesting or drip irrigation, that help minimize water usage. Finally, organic gardens are environmentally-friendly and will require the use of pesticide-free materials and government certification.

Tips from the Garden:

If onsite parking is to be provided then care should be taken to provide for a surface that is in keeping with encouraging “green thinking” and sustainability. A permeable surface such as gravel or stone is preferable to asphalt as it allows for percolation. There are also systems that will stabilize the land while allowing for greenery to grow through. This does not need to be grass, there are plants that will maintain a low height naturally eliminating the need for maintenance while re-nourishing the soil.

✓ Identify and Plan for Disaster Scenarios

This is a very broad topic, but can be broken down into two main categories that could potentially create problems for a Market Garden. Natural disasters, like floods and windstorms, could potentially damage the garden’s plants and structure. Installing a Market Garden near a waterway will likely translate to the need to better prepare for natural events like flooding. Development changes near a Market Garden can also pose a threat to certain garden operations, especially those that are certified organic operations. These types of operations will have to be cognizant of development around its area, as air borne particulates as well as water runoff could negatively effect its current organic status.

Before implementation, an analysis of potential natural disasters or development challenges should be conducted to prepare strategies on how to deal with these situations if they arise.

✓ Insurance

The insurance required for the Market Garden is directly tied to the questions:

- What is the nature of the agricultural organization?
- Is the land privately or publicly owned?
- Who is allowed to participate and how?

¹² Food Co-Op Initiative <http://www.foodcoopinitiative.coop/>, Web 9.29.13

Issues related to accessibility should be addressed. Having in place a clear written agreement as to the Market Garden's operations, infrastructure, and responsibility is essential to avoiding future litigation. Anticipating current and future uses can minimize putting an operation at risk. Market Gardens usually carry farmers insurance. It is recommended that product liability insurance be carried by an affiliated Farmers Market to protect from claims regarding food safety. Community gardens may or may not carry liability insurance, checking with the municipality will answer this question. Written and signed agreements that clearly outline how the garden will operate may eliminate the need for any kind of insurance.

PATCH Perspective and Lessons Learned

Operations

Choose a Growing Method and Systems

PATCH, because of saltwater intrusion, utilizes JackPot™ grow-bags for its operation. One of the benefits of the current method of growing in PATCH is that the JackPot™ grow bags can literally be picked up and moved. This method of growing for PATCH allows for flexibility of design. Currently with a total of 3500 bags, there is still room for more. While PATCH presently satisfies the requirements of "highest and best" use of the land, this definition might change over time. The flexibility of this aboveground method allows for easy transportation to another site.

LESSONS LEARNED: The JackPot™ grow-bags provide ease of use, are reusable, able to be moved, and manageable for seedling starting, plantings, weeding and harvesting.

Tips from the Garden: Setting Up the JackPot™ Grow-Bag System

Lay down the black cloth paper, overlapping the horizontal rows by at least two inches and secure with metal staples specifically made for this purpose. A recommendation is to select the thicker four milliliter paper; while a bit more expensive, it will last longer avoiding early replacement. Avoid tamping down or compacting the soil underneath or have heavy equipment run over the land. This will impede percolation and impact drainage of the soil. A suggestion is to lay down hay over the cloth between the bags to cool down the heat effect from the black cloth.

Arrange for the compost to be delivered to the site. The JackPot™ bags should already have been ordered and on site prior to the delivery of compost. JackPot™ are bags made of propylene that have several advantages. Because they can be moved, it provides for flexibility in terms of placement and would be ideal in a temporary situation. They also breathe which reduces the incidence of pests and of becoming overly saturated with water. Shovels and pitchforks work best for transferring the compost into the bags. If possible, choose a shaded location or erect a temporary shade device as this is hot and sometimes aromatic work.

LESSON LEARNED FROM PATCH: "Good Soil can Smell Bad." Let neighbors know there may be an odor and cover the compost to mitigate this from occurring.

Fill the JackPot™ bags with compost almost to the top and shake down the bag. Once the bags are filled and moved into place, turn down the sides to the outside about three inches. This helps stabilize the bag and discourages pests from crawling up the sides. The bags should be placed in double rows, 25 bags long and separated by 22 inches between each double row. This provides enough working space while maximizing potential crop production.

The micro drip irrigation system should be installed with one drip per bag off of the main line. The smaller lines which run down between the double rows of bags should be connected to the larger feeder lines that run perpendicular to the bag rows. In this way, the lines are kept orderly and interfere as little as possible with foot traffic. These irrigation lines should be connected to at least one and a series of cisterns that are part of a timed system fed by a pump or series of pumps. A water sensor should be included to avoid watering on rainy days. The pumps can be solar powered. The cisterns can be filled with water from either a nearby catchment system.

Be careful regarding water quality; avoid asphalt roofs, areas of heavy vegetation drop and/ or presence of wildlife as it can contaminate the water. Condiments that can be added separately to each of the cisterns include rinsed seaweed, fish bones and compost “tea.”

LESSON LEARNED FROM PATCH: What is described above is ideal. However, using cisterns with pumps at the PATCH was not feasible. Water for the PATCH comes from the municipal utility.

Determine Supplies Needed

Most of the storage and display materials were provided by the Dania Beach CRA. Moving to the next stages of the original plan will satisfy the long-term need for more permanent display and storage which should positively impact the Market Gardens and Farmers Market operations and profitability.

LESSONS LEARNED: A detailed list of what is needed and when ordering should occur. Storage should be designed to organize tools and supplies. Invest in shelves and tool organization pegboards for hand tools so it is easy for any volunteer or person working at the garden to see what tool goes where and to identify what is missing.

Determine Tools and Equipment Needed

Most of the tools and equipment for PATCH were provided by the Dania Beach CRA.

LESSONS LEARNED: Buy the best quality tools as the budget allows and ensure they are marked (bright orange paint and stickers), maintained (in the SOP ensure volunteers know how to wash the tools) and stored (pegboards outlined with shapes of the tools so everyone knows where to put the shovels, brooms, clippers, etc.) properly.

Develop Standard Operating Procedures

The PATCH, unfortunately, did not start with a written SOP. As it has evolved, weekly and seasonal work plans have been developed and detailed record keeping has begun to ensure an analysis of type of crop grown, its yield, sales, and market demand are tracked to achieve a higher level of profitability. Planting sheets document each row of the 3,500 jackpot bags, including what was planted, anticipated harvest dates, and crop rotations along with what seedlings needed to be started, how much of each, and when they will be ready for transplanting.

LESSONS LEARNED: Take the time to develop the SOP; it may change over time, but it will provide for a mutually agreed upon common way of planting, harvesting, rotating crops and operating the Market Garden.

Add a blackboard or whiteboard to the garden so volunteers and others working there can share what they did and identify any issues or concerns.

Create a Budget

The funding for the PATCH was done through public-private partnerships. The cost of the land, grading and infrastructure were provided by the DBCRA. The initial JackPot™ grow-bag system including organic soil, drip irrigation, ground cloth barrier and seedlings was provided by the BRHPC TOUCH initiative. The installation and

maintenance was done primarily with volunteers. The cost per installed bag is approximately: \$12.50/bag.

LESSONS LEARNED: Volunteers are important in keeping costs as low as is possible. BRHPC's relationship with HandsOn Broward, a volunteer referral system that connects individuals and groups to meaningful hands-on service opportunities at over 600 nonprofit organizations in Broward County, Florida, has been instrumental to the success of PATCH. Finding a volunteer referral system and/or individual or groups wanting to assist in the garden is mutually beneficial.

Infrastructure

Identify Workforce and Standards, Roles and Responsibilities

Working in a Market Garden is hard work. To ensure PATCH had the constant care needed to be successful, apprentices from the neighborhood were hired in addition to volunteers. Signs were posted at the local community center advertising the availability of two part-time positions with PATCH, a Farmers Market Manager and a Market Garden Grower. After a brief interview process, two candidates were selected to train apprentices. Dania Beach CRA along with the PATCH Advisory Council ultimately made the hiring decisions.

The apprentices and area volunteers, from day-one, learned hands-on, with field training from experts who had successfully grown using the JackPot™ system. This took place over several weeks, with most work being done on Saturdays with large groups of volunteers (approximately 20-40 volunteers per Saturday). The apprentices were instructed on how to start and plant the seedlings through crop production and harvesting. The volunteers and apprentices were new to growing in this type of system and were taught the mechanics of running a market garden.

LESSONS LEARNED: Hire from the Neighborhood and be ready to train once, train again and train some more. Many think growing a garden is easy – it is NOT. In addition, every person entering the garden will describe a different way of sowing seeds, planting, transplanting, harvesting, etc. Having a set training curriculum and SOP related to how the garden would be run is very important. As PATCH continues to evolve, a more formal, curriculum-based training program will be provided.

Many CRA communities have populations with criminal records. Be willing to take a risk on hiring someone who has the interest and skills needed, even if that person has a criminal record.

Identify Sources of Revenue

The PATCH Farmers Market is the current source of revenue. However, initial funding from grants and city funds were necessary to establish PATCH. To date, the city of Dania Beach currently pays for PATCH's water. Therefore, a Market Garden revenue plan may need to consider grants and municipal funding for startup revenue and program sustainability.

LESSONS LEARNED: Visibility and traffic are important to increasing revenue at a Farmers Market. PATCH is located within a neighborhood and although it is reasonably accessible, additional marketing and special events have been required to gain customers and build relationships.

Develop Greening Level

Efforts were made to integrate sustainable greening practices into every aspect of the PATCH garden, including cisterns, micro-drip irrigation and agricultural practices that do not use pesticides or fertilizers. The only pesticides or fertilizers being used at PATCH are considered to be organic. This is important as PATCH is considering applying for the label "certified organic" which involves testing and extensive record keeping and reporting. Natural pest management is aided by the strategic use of flowers and herbs that discourage pests and

promote natural pollinators. Scented marigolds placed upwind and basil planted near tomato plants are some of the pest controls in place. Because there are multi- and single-family dwellings on either side of PATCH, residual contaminants could blow or leach into PATCH so a 25 foot buffer is being maintained from the edge of the property.

The greening level of PATCH is a work in progress that will progress over time as the stakeholders have a better understanding and additional education on how important this aspect is to the overall sustainable health of PATCH.

Establishing a responsible environmental policy requires some level of a greening at a Market Garden. On site, there should be a policy to compost all garden and food wastes. Recycling bins should be made available and when hosting events, containers and materials should be selected that encourage recycling and discourage producing trash. Vendors should be required to provide containers that can be recycled or composted. Natural fertilizers and pesticides which should mimic plants' natural defense systems should be used. The benefits of a responsible environmental policy is not just environmental, but economic too; it is also less expensive. Reuse can be a great cost saver.

Here are a few examples of ways to 'Green' the Market Garden:

- Plant white or yellow flowers near garden plants. Many bugs do not like flowers of these colors.
- Companion planting. Planting certain plants, like basil, next to other plants, like tomato plants, will reduce the impact of pests
- Reuse old shipping pallets as the base for a planting bed.

Identify Potential Challenges:

Identify and Plan for Disaster Scenarios

The PATCH garden was established on land that was known to be prone to flooding. The use of the portable JackPot™ allows for the easy relocation of plants during times of flooding and other threats like future development or off-site pesticide spraying. Because PATCH is bordered on all sides by residential use, the immediate risk of challenges resulting from future development is reduced.

Insurance

PATCH is currently under the control of the Dania Beach CRA and is covered by the agency's insurance at a level not typical for similar types of agricultural enterprises.

Step 4 Develop a Business Plan

Worksheet #1

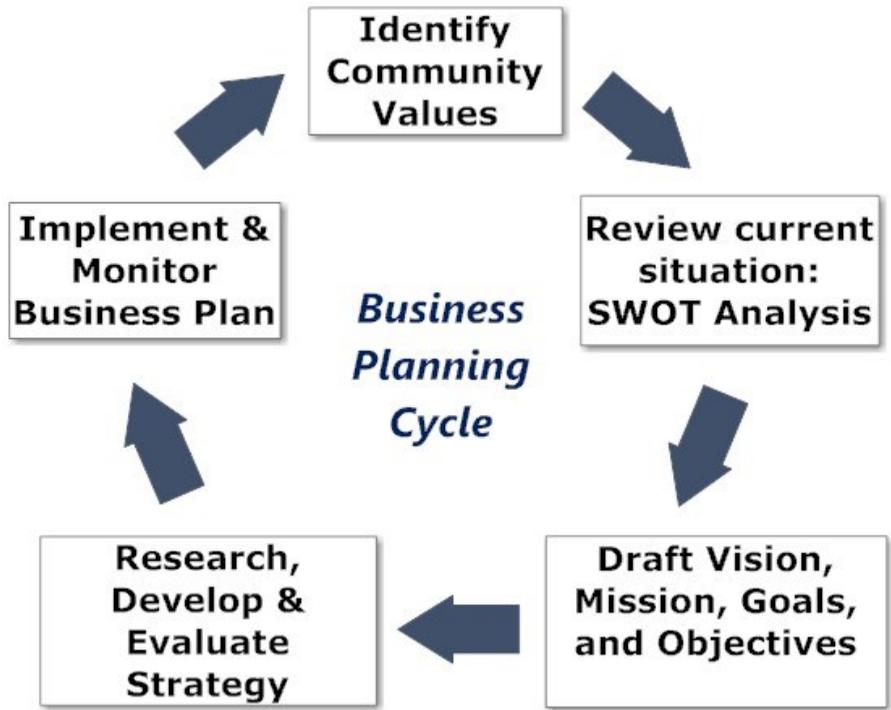
- Provide an Overview — *Worksheet #2-5*
- Define Organization and Management — *Worksheet #6*
- Develop a Marketing Strategy — *Worksheet #7-14*
- Develop an Operating Strategy — *Worksheet #15-22*
- Develop a Financial Strategy — *Worksheet #23-29*
- Create an Executive Summary

When starting a Market Garden, it is essential to develop a business plan. The business plan serves as a road map and a planning tool that provides important detailed information to funding sources and potential partners. Internally, the plan provides the strategies for operating the business while tracking and monitoring progress.

In this step are the details that will guide and determine whether the Market Garden succeeds or fails. Some numbers suggest that three out of five businesses fail in the first year. According to the directors of the Illinois Small Business Development Center Network, the primary reason for failure is the lack of a business plan.¹³

A business plan is divided into the six sections. In this step, each section is briefly described, examples from the PATCH business plan are provided, and resources to guide the development of each section in the business plan are identified.

Before starting development of a business plan, **Worksheet #1** on the companion site will help articulate the reasoning behind the project and determine expertise and resource needs.



✓ Provide an Overview

The Overview provides an introduction to the business plan and provides the project’s vision, mission and goals. This section is divided into 4 parts:

- Introduction
- Vision
- Mission
- Goals

Fortunately, the vision statement, mission statement, and goals have already identified in *Step 1: Market Garden Preparation*. Now is a good time to revise these statements, if needed. The Introduction provides what information is in the business plan and what is needed in the development process for the plan.

Worksheet #2 (Introduction) on the companion site will help inform the Introduction. **Worksheet #3 (Vision)**, **Worksheet #4 (Mission)**, and **Worksheet #5 (Goals)** will all help develop or refine the vision, mission, and goals.

✓ Define Organization and Management

This item is necessary to clearly define the ownership of the Market Garden and how it will be organized and managed. This organizational structure may vary depending on whether the Market Garden will be charted as nonprofit or a small business. If your state allows it, a co-op is another option.



¹³ Bachmann, Janet. "Market Gardening : A Start-up Guide" ATTRA, March 2002, <http://agmarketing.extension.psu.edu/Retail/PDFs/MrktGrdningstartupgd.pdf>, 9.23.13

Worksheet #6 (Organization and Management) on the companion site will help define the organizational and management structure of the project.

✓ Develop a Marketing Strategy

Developing a market strategy is one of the most important components of the business plan because if the market does not exist or a way to get the product to market has not already been found, then the goals will not be reached. Developing this section requires a bit of research into understanding the market, product demand, potential customers, and competition.

Worksheets #7 (Market Analysis) - #14 (Promotion) on the companion site will help fill in the details of this section.

✓ Develop an Operating Strategy

The operating strategy describes the sequence and frequency of operational duties need to operate the Market Garden. For example, the sequence of opening, closing, accounting procedures, and inventory updates would be included in the operating strategy.

Worksheets #15 (Crop Management) - #22 (Regulation and Policy) can be utilized to develop an operating strategy.

✓ Develop a Financial Strategy

The financial strategy covers funding requirements, expenses and profits (or losses) for the Market Garden business.

Worksheets #23 (Expenses) - #29 (Risk Management) on the companion site will help explain this section.

✓ Create an Executive Summary

Although this is the first section in the business plan, this should be the last section written. The executive summary provides a one or two page summary of the business plan, including any significant information.

Examples of completed worksheets for all 29 worksheets can be found on the companion site.

PATCH Perspective and Lessons Learned

The initial business plan proved to be based more on theory than reality. In August 2013, the Dania Beach CRA engaged experts to develop a formal Business Plan. The PATCH Business Plan includes all the elements of a business plan listed above as well as a Strengths, Weaknesses, Opportunities, and Threats, or SWOT analysis that assessed the project's current status. The SWOT helped to create a framework for future goals by building on past accomplishments and lessons learned.

Lesson Learned: With the recent development of a formal business plan, the Dania Beach CRA is more confident about how to move forward with the future development of PATCH.

Step 5 Obtain Necessary Government Permission

Licensing

- Obtain a Business License
- Zoning:
 - Determine Status of Land Use
 - Determine if Suitable for Planned Activities
 - Temporary or Permanent

Establish a Timetable

- Identify Any Requirements for Agricultural Projects
- Obtain Necessary Permits
- Identify Any Qualification and Certification Standards

Licensing

✓ Obtain a Business License

The need to obtain a business license is dependent upon the specific regulations of the city where the commercial agricultural operation is located. Sometimes this requirement is waived because it is an agricultural business. Local, regional, or state government websites servicing the community where the Market Garden will be established will have more specific information on the business licensing requirements in that area.

✓ Determine Status of Land Use

Vacant lots and degraded land, such as brownfields or greyfields, may provide an excellent location for a Market Garden as it could be seen as revitalizing an otherwise underutilized piece of property. Detroit is the most prominent recent example of a city that is struggling to revitalize its many square miles of abandoned and vacant properties. Future land use designations are the underlying factor upon which progressive zoning laws can be written. These sites should be seen as opportunities to develop and bring new life to derelict spaces, benefitting the neighborhood landscape and the community's health.

As discussed in *Step 1: Select a Site*, these sites could contain contaminated soil that would put a Market Garden and the health of the community at risk. Soil should be tested to determine whether the land is suitable for planting or where an above-ground method for planting should be considered.

✓ Determine if Suitable for Planned Activities

Depending on the city where the Market Garden will be established, zoning laws may need to be revised. For many cities, this requires rethinking and rewriting existing zoning laws to allow the necessary mix of uses that have been shown to support sustainable development and redevelopment. Contact the local City Planning or Building Departments for more information on zoning laws in that city.

✓ Temporary or Permanent

The use of the site for the Market Garden and the re-knitting of the community can occur either on a temporary or permanent basis. The method of installation for the agricultural project can also be of a temporary or

permanent nature. Mobile garden methods can be advantageous when it is uncertain whether the site will be available for the Market Garden long-term. Some type of formal agreement should be reached to inform all existing and prospective stakeholders that a current, albeit temporary, activity is occurring on the land to avoid unexpected or unpleasant surprises.

Establish a Timeline

Modifying current zoning language to allow for these types of mixed agricultural activities, such as Market Gardens in residential areas and the keeping of fowl (which probably top the list of those elements most resisted by both public and private citizens), can be time consuming. Additionally, there needs to be consistency in the land use plan and any changes in zoning language. It is wise to perform a thorough review of both, identifying sections that would serve as impediments to the implementation of the selected agricultural project. With an increasing national interest in producing local food, having the necessary zoning changes in place prior to the implementation of any program avoids frustrating the community by a lengthy rezoning process.

✓ Identify Requirements for Agricultural Projects

Usually there is an ordinance or a set of guidelines from the City Planning and Building Departments in place to inform the community of the requirements for establishing a garden. Some of these requirements will be influenced by the type of agricultural project. For example, parking requirements will differ for a community garden, market garden, and Farmers Market. Water source and its management can sometimes be problematic as vacant land rarely comes with a running faucet. Looking for partnerships with neighboring properties can be an option if agreements are clearly outlined and understood by both parties.

✓ Obtain Necessary Permits

Similar to the discussion in the last section, local City Planning and Building Departments will mandate the permits required for buildings, sheds, water, electricity, irrigation, and fencing. Depending on how “agriculture” is defined by the city, there could be other municipal departments involved. Additional application processes may be required to obtain necessary permits. It is important to distinguish between the organizational or business aspect (licensing) and the actual use of the land (permit) process and what is allowed (zoning and land use). Contact the relevant local city departments to determine the process for obtaining necessary permits.

✓ Identify Any Qualification and Certification Standards

Quality and certification standards may be established depending on the type of operation and what is applicable on a local, state, and national level. Food safety laws come under the purview of numerous federal, state, and local agencies. The federal responsibility for food safety rests primarily with the Food and Drug Administration (FDA) and the U.S. Department of Agriculture (USDA). The FDA, an agency of the Department of Health and Human Services, is responsible for ensuring the safety of all domestic and imported food products, except for most meats and poultry, and the use of pesticides is under the guidance of the EPA. A certified organic farm will have additional requirements to obtain and maintain this certification. If a Market Garden is to be certified organic, it is essential that there be a clear understanding of what exactly is required to obtain and keep this label. Pest management and fertilizers should only be from organic sources however, this is an oversimplification. The USDA National Organic Program¹⁵ can provide detailed information. Even if a Market Garden is not certified organic, integrated pest management best practices should be followed which means that fertilizers and pesticides are not used and if they are, are derived from natural sources.

¹⁵ USDA National Organic Program, http://www.usda.gov/wps/portal/usda/usdahome?navid=ORGANIC_CERTIFICATIO, Web 9.28.13

PATCH Perspective and Lessons Learned

Licensing and Permits

The DBCRA, having experience with licensing and permits, was able to streamline the process through interagency communications.

Zoning

The Dania Beach CRA wisely addressed the issue of zoning well before the implementation of PATCH by creating a Downtown District.¹⁶ This District allowed for the inclusion of the PATCH Market Garden model. As redevelopment occurs, it will include PATCH and reinforce its value and place in the community.

Identify Any Qualification and Certification Standards

PATCH is presently growing in an all-natural, pesticide-free manner. PATCH is considering organic certification.

LESSONS LEARNED: Utilizing the CRA's relationships with the departments and agencies responsible for licenses, permits, zoning, and qualification and certification standards, saved time and resources.

Step 6 Secure Funding

- Budget — *Worksheet #23-29*
- Funding Sources — *Worksheet #27-28*
- Maximize Tax Credits

By this step in the process, a budget for the business plan should have been created and should require only tweaking depending on the funding sources that will be pursued. Because all of the financing needed may not be in place at the start of a project, consideration should be given to either waiting until it is fully funded or phased in as funding permits. If the project is to be phased-in, it should include a timeline that identifies the amount of money needed for each step. The budget should be realistic and based on experience and/or information gathered from local sources, relevant examples and case studies. As **Worksheet # 23 (Annual Expenses)** outlines, there are many costs to be considered, some more obvious than others. It is important to create a detailed budget, and have it carefully reviewed for items that may have been initially overlooked.

✓ Funding Sources

The funding options listed below provide an overview of the sources that may be considered. There are many funding options to explore that range from the traditional, such as a bank loan, to the nontraditional, like crowd financing.

Grants

While there are many grant opportunities, it is wise to develop strong partnerships prior to applying, as many of the larger grants require a history of multiple partners having already successfully worked together. Information that has already been developed for the business plan, like the project's vision, mission, goals, objectives, and financial strategy, will help save time during the application process for many grants as this is similar information. Grants can come from the private and public sector.

¹⁶Dania Beach CRA, <http://daniabeachcra.org/about-the-cra/downtown-district>, Web 9.24.13

Foundations

Foundations provide grants to organizations seeking funding for projects that align with a specific mission. Applying to Foundations for grants require planning and time, but they can be extremely generous and supportive.

Micro-Business Loans

Micro-business loans can be extremely successful in allowing a startup to be launched that might otherwise find project funding difficult or impossible to obtain. These loans are very effective in that money is lent for a period of time with the expectation that it will be paid back into a central funding pool from which it came. The interest rates and pay back terms are usually modest and reasonable.

Private Donors/ Investors

Private donors account for the majority of charitable giving. Work to build relationships with well-connected community members and potential investors to see if they can support the project.

Crowd Financing

Crowd financing relies on the investment of a large number of people usually with small donation amounts. This kind of funding is a more recent and innovative financing mechanism. Typically there is a social benefit of the project that motivates the crowd to invest with the expectation of some kind of return either real or token. With several platforms available, such as Kickstarter.com and Indiegogo.com, there are multiple opportunities to find both social and economic support.

Membership

Market Gardens can include a monthly or annual membership fee (annual is more common) in return for weekly baskets of seasonal produce, a method called CSA. They can also require a fee to lease space in the garden, like a plot of land or a box. Membership will not initially fund a project, but it can establish a revenue stream that helps with the regular maintenance and future improvements.

Public-Private Partnership

Public-Private Partnership, or P3, has become the new buzz word in financing and wisely recognizes that bringing together the resources that are uniquely available to each type of organization. This allows for the sum of the whole to become greater than the parts. Involving a private entity with a public organization is usually for a social project. The development of the P3 financing model works well with the Market Garden model as they are mutually supportive.

Bank Loan

This is the most traditional approach in securing a loan. It is not uncommon for banks to include specific language in their mission statement that involves a social component. While agricultural models can range from non-profit to profit, because they all directly tie to food production, these models are still considered socially-oriented ventures. This might very well speak to the core mission of the bank. Many banks have non-profit arms in the form of foundations that can be a substantial source of funding for projects.

Revenue

Ultimately, this is the ideal scenario for a Market Garden. The Market Garden establishes its own revenue stream and is weaned away from needing grants, subsidies, or any additional external interjection of money in order to continue with day to day operations. It is usually when capital improvements are identified that trigger a search for additional funding above and beyond daily revenue. Over time, this should pay for itself with a pre-determined return on investment, the other methods of financing listed previously might be able to be utilized. Good old fashioned fund raisers, in-kind donations and even partnerships with local educational institutions can be a source for additional funding. Thinking creatively and partnership should provide for even more sources.

For more information on grants, foundations, individual donors, and the grant writing process refer to the Resources section.

Worksheets #27 (Projected Funding) and #28 (Funding Information) will help identify and organize a project's funding options.

Maximize Tax Credits

Projects redeveloping land that has been degraded by contamination are generally eligible for assistance through the EPA's Brownfields and Land Revitalization Program.¹⁷ This program assists in covering the costs for testing and remediation, which can be prohibitively high. This provides an opportunity for the land to transition from discarded to viable. Targeted Enterprise Zones provide additional tax credits when a business locates into these zones and hires and retains local residents. While the specifics vary, incentives can include tax credits on state sales tax, corporate income tax, and ad valorem property tax as well as assistance for property improvements.

Tax Increment Financing (TIF) occurs when an increase in site value and private investment generates an increase in tax revenues. This "tax increment" occurs within a defined district to finance the debt that is issued to pay projects designed to channel funding toward improvements in distressed, underdeveloped, or underutilized parts of a jurisdiction where development might otherwise not occur. TIF creates funding for public or private projects by borrowing against the future increase in these property-tax revenues.¹⁸ How and when it is applied will vary from municipality to municipality and can be determined by the county. This is money primarily targeted for CRAs which allows a CRA to gauge its budget and determine the viability of future projects against projected economic impact. This is one of the reasons why an agricultural project must demonstrate in one way or another either direct or indirect economic gain to justify the expenditure of funds.

PATCH Perspective

PATCH was initially funded by the BRHPC through the TOUCH Initiative. TOUCH is funded by the Centers for Disease Control and Prevention, under the Affordable Care Act. While BRHPC funded the initial development, the Dania Beach CRA had already requested five year plan funding for PATCH's implementation and set the money aside each year to ensure it had a pool of accessible funding when needed. The Dania Beach CRA also contributed funds for capital improvements to the site, such as installing a fence, a shed, signage, display tables, and tents for the Farmers Market.

¹⁷ U.S. EPA Brownfields and Land Revitalization <http://epa.gov/brownfields/>, Web 9.25.13

¹⁸ Various, (2001). *Tax Increment Financing and Economic Development, Uses, Structures and Impact*. Edited by Craig L. Johnson and Joyce Y. Man. State University of New York Press.

Step 7 Implementation

Building on each of the steps, the time has come to implement the Plan. There are many successful models that can be looked at and followed including, the Urban Growth Farm in Cleveland,¹⁹ the Fresh Roots Farm in Atlanta,²⁰ Growing Power in Milwaukee,²¹ a hybrid urban agricultural program and Hollygrove Market and Farm in New Orleans.²² Hooker Alley in San Francisco is an example of a long running, very successful community garden that reclaimed a previously notorious area of the city.



“The soil is the great connector of lives, the source and destination of all. It is the healer and restorer and resurrector, by which disease passes into health, age into youth, death into life. Without proper care for it we can have no community, because without proper care for it we can have no life.”

– Wendell Berry, *The Unsettling of America: Culture and Agriculture*

¹⁹ Local Harvest, Urban Growth Farms, <https://www.localharvest.org/urban-growth-farms-M30747>, Web 9.29.13

²⁰ Fresh Roots Farm, <http://www.freshrootsfarm.com/FreshRoots.aspx>, Web 9.29.13

²¹ Growing Power, <http://www.growingpower.org/>, Web 9.29.13

²² Hollygrove Market and Farm, <http://hollygrovemarket.com/>, Web 9.29.13

Next Steps: Strategies for Sustainability

Since PATCH was intended to be a model that could be replicated, *the Lessons Learned* as discussed throughout the manual are the next steps to moving from desire to reality. In this endeavor, PATCH is looking at expanding its current operation and completing the additional components outlined in the original site plan. With the inclusion of a pavilion that can play host to events, a teaching kitchen, and room for warm and cold storage, PATCH has the potential to become a food hub with distribution capabilities.

PATCH is an innovative model. It directly supports sustainable redevelopment and provides for multiple synergistic benefits, including: increasing economic prosperity; improving access to affordable, healthy foods; fostering social and business entrepreneurship; building community bonds and unity; developing new jobs; and improving the health outcomes of the community. These are benefits that are required of a CRA and desired by community, residents, the municipality, CRA, and community partners. It also sends a message to future development that agriculture is as much a contributor to an economically vibrant and vital community as any other form of development and should not be pushed aside. The bringing together of organizational operations under the unique umbrella of a Market Garden requires public and private interests work together for a common goal.

As the Market Garden progresses, the goal is to stay true to the principles of sustainability and to follow the vision, “dot the city” with more PATCH gardens. It is believed by doing so the potential for local community engagement increases—both as consumers and as future entrepreneurs who can walk to work. It reduces greenhouse gas emissions and ensures that the produce sold is fresh. PATCH helps move the perception of local food production from hobby to reality.

An integral component for the sustainability of any market garden is the ability to draw new customers

while continuing to serve repeat customers. Providing new and unique locally produced products is one way in which to keep customers coming back while attracting new ones.

In 2011, the Florida Legislature enacted the Florida Cottage Industry Food Act allowing individuals to manufacture, sell and store certain types of “cottage food” products in an unlicensed home kitchen. As noted by Julie Norris in Resources, Vendors this is great news for bakers, candy makers, jammers and dehydrators, pasta makers and mixers of all kinds. It lowers what is known in the food industry as “barriers to entry” allowing low risk foods to be prepared in a home kitchen as opposed to finding a commercial kitchen and allows for direct marketing to consumers.

The ability to promote local vendors and bring additional revenue into the neighborhood is a major factor to ensuring sustainability. Another incentive is that by getting their product into a community market, individual vendors are exposed to area chefs who taste these products and might look to feature some of the local products in their restaurants, creating a new group of entrepreneurs and contributing to the sustainability of the market garden by serving as an incubator for locally grown and produced products.

The intent and purpose of this Guide is to clearly demonstrate how to create a place-based Market Garden. The necessary tools to be successful have been included; a checklist that provides concrete steps with detailed information, a decision tree, graphics, maps, photos, examples and a broad range of excellent resources. It provides the steps needed to increase healthy food access, justify “highest and best use” and create sustainable economic redevelopment. This unique approach, a Market Garden, is possible and preferable as it synergistically responds to the specific needs and context of a community, residents, the municipality, CRA, and community partners.

Resources

Business Plan

Building a Sustainable Business: A Guide to Developing a Business Plan for Farms and Rural Businesses available for download at:
<http://www.sare.org/Learning-Center/Books/Building-a-Sustainable-Business>

Environmental Protection Agency *Urban Farm Business Plan Handbook* - http://www.epa.gov/brownfields/urbanag/pdf/urban_farm_business_plan.pdf

Environmental Protection Agency *Urban Farm Business Plan Worksheets* -
http://www.epa.gov/brownfields/urbanag/pdf/urban_farm_business_plan_worksheets.pdf

Florida Laws

2011 Florida Statutes, Part III, Community Redevelopment -
http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&URL=0100-0199/0163/0163PartIIIContentsIndex.html&StatuteYear=2011&Title=-%3E2011-%3EChapter%20163-%3EPart%20III

Florida Farm Bill – (Pending government re-opening)

MyFlorida.com - <http://www.myflorida.com/>

Funding

Centers for Disease Control and Prevention, Community Transformation Grants -
<http://www.cdc.gov/communitytransformation/>

Environmental Protection Agency's Brownfields and Land Revitalization Program - <http://epa.gov/brownfields/>

Foundation Center - http://foundationcenter.org/getstarted/faqs/full_list.html#funding-foundations.

Grants.gov - <http://www.grants.gov/web/grants/about.html>.

Gardening and Agriculture

American Community Gardening Association - <http://www.communitygarden.org/>

Florida Vegetable Gardening Guide - <http://edis.ifas.ufl.edu/vh021>

Growing Vegetables in South Florida –
http://miami-dade.ifas.ufl.edu/pdfs/urban_hort/Easy%20to%20grow%20vegetables.pdf

GrowVeg.com GrowGuides: Crop Rotation - <http://www.growveg.com/growguides/crop-rotation.aspx>

GrowVeg.com GrowGuides: Planting Systems –
<http://www.growveg.com/growguides/planting-systems.aspx>

National Gardening Association - <http://www.garden.org/>

National Sustainable Agriculture Information Services - <https://attra.ncat.org/publication.html>

TOUCH Broward *Growing Growers, Expanding Markets and Accessing Healthy Food in Broward County: Free Workshops for Small Farmers, Community or Market Gardeners & Farmers Market Managers* -
<http://www.touchbroward.org/growing-growers-workshops/>

University of Florida | Institution of Food and Agricultural Sciences Extension University of Florida Solutions - <http://solutionsforyourlife.ufl.edu/agriculture/>

Needs Assessment

Community Tool Box, Chapter 3: Assessing Community Needs and Resources -http://ctb.ku.edu/en/tablecontents/chapter_1003.aspx

WhyHunger - <http://www.whyhunger.org/portfolio?topicId=29>

Operations

Veggie Compass: Whole Farm Profit Management - <http://www.veggiecompass.com/>

PATCH Resources

Broward Regional Health Planning Council - <http://www.brhpc.org/>

Dania Beach Community Redevelopment Agency - <http://daniabeachcra.org/>

PATCH: Community Garden documents - <http://www.touchbroward.org/patch/>

Dania Beach Patch Community Gardening Program
Dania Beach Patch Code of Conduct

PATCH Facebook Page - <https://www.facebook.com/DaniaBeachPatchCommunityGardenMarket>

Transforming Communities with Urban Market Gardens PATCH manual - <http://www.touchbroward.org/patch/>

Step by Step Checklist: Preparation to Implementation - <http://www.touchbroward.org/patch/>

TOUCH Broward - <http://www.touchbroward.org/about/>

Additional Research Resources

These are articles and websites that were used to inform this Guide. They are offered here to assist with additional research into Market Gardens, Urban Farms, CRAs, and Urban Food Systems.

“Agriculture Secretary Vilsack Unveils Vision for Organic Agriculture” bnetonline, May 15, 2013, Web 5.15.13

Ashe, Marice, David Jernigan, Randolph Kline, and Rhonda Galaz, ‘Land Use Planning and the Control of Alcohol, Tobacco, Firearms, and Fast Food Restaurants’, American Journal of Public Health, 93 (2003), 1404–1408

Bragg, Errol and Barham, Jim. “Regional Food Hubs: Linking Producers to New Markets”, Know Your Farmer, Know Your Food (KYF2) Regional Food Hub Subcommittee, http://www.ngfn.org/resources/ngfndatabase/knowledge/RFHub%20Presentation_complete%20version_5.24.pdf, Web 6.7.13

Broward County, Community Redevelopment Areas <https://www.broward.org/PlanningAndRedevelopment/Redevelopment/Pages/CommunityRedevelopmentAreas.aspx>

Broward Regional Health Planning Council, TOUCH grant <http://www.touchbroward.org/>

Central County Community Redevelopment Plan, Broward County Board of Commissioners, October 23, 2012

Centers for Disease Control and Prevention, Community Transformation Grants <http://www.cdc.gov/communitytransformation/>

City of Dania Beach Community Redevelopment Agency Redevelopment Plan, Dania Beach Redevelopment Agency, January 2009 <http://daniabeachcra.org/images/craredevelopmentplan2009.pdf>

City of Dania Beach CRA <http://daniabeachcra.org/>

City of Dania Beach <http://www.ci.dania-beach.fl.us/>

City of Dania Beach Urban Infill and Redevelopment Area Plan, City of Dania Beach, March 2003 Florida Redevelopment Association <http://redevelopment.net/cra-resources/q-a-for-cras/>

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