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## **Developing a Carbon Reduction Methodology through Backyard Gardening Green Light New Orleans**

### **Project Summary**

#### **Part I. Description**

Participating organizations

- Tulane University
- Edmonton and Area Land Trust

#### **Background or problem statement**

Many New Orleans residents live in neighborhoods that are swamped with highly processed convenience foods that are shipped thousands of miles, but they have little or no access to a sustainable source of fresh, healthy vegetables. Cornell University reports that food travels an average of 1,500 miles before consumption. Growing food at home eliminates the fuel consumption and associated CO2 emissions of food transport.

#### **General description of the project**

Green Light New Orleans educated 200 households on how to begin growing their own food through an "Introduction to Organic Gardening" class detailing how to plant seeds, transplant seedlings, water, and harvest their first crops. Green Light volunteers built the raised garden beds with participating households, and documented the experience with photographs, testimonials and baseline surveys. Green Light followed up with the new gardeners to check in on the gardener's successes and challenges, and documented behavioral changes in follow-up surveys. Follow-up surveys asked about composting, gardening practices and the types of vegetables replanted in the garden bed. Scaling the program up to educate 200 households and build their raised-gardens in a two-year project period provided Green Light with valuable insight and experience, especially in testing the organization's existing supply chain.

#### **Description of outcomes and follow-up**

Project products include the following:

- Calculations and data for 22 food crops detailing their yields, food miles and financial savings expected if grown at home rather than purchased.
- Tulane University's class report summarizing the process of collecting the data and documenting their challenges, successes and impact.
- Sampling of testimonials and photographs from households participating in the Garden program.
- Links to online media discussing Green Light New Orleans Garden program (local newspaper article and radio segment).
- Copy of the Vegetable Planting Chart used in garden classes that depicts how many plants should be planted per square foot.
- Pictures of Green Light's FileMaker database system that houses participant information.

Follow-up activities include continuation of technical support for all 526 current gardeners; management of a free seed library; and the integration of the 22 different food crop data into Green Light's FileMaker database to automate the carbon reduction expected for each garden constructed.

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## **Project Summary**

### **Part II. Analysis**

#### **Successes**

- ✓ Green Light New Orleans now has a list of 22 food crops and their expected carbon reduction from food miles, financial savings and expected yields.
- ✓ 200 more households have been educated on organic gardening basics and are learning to grow food at home, in their own yard.
- ✓ Several gardeners have expanded their gardens to include more annuals or fruit trees and other edible plants (such as moringa trees, artichokes, and raspberries).
- ✓ Families have contacted Green Light for more information on how to begin composting food scraps rather than dispose of them in the garbage and Green Light has connected handy volunteers with families that need assistance in building a compost bin.
- ✓ A few families reached out to Green Light for help in making healthier grocery shopping decisions, and Green Light referred them to the Farmers Market's SNAP program that stretches their grocery budgets by \$20/month. Some gardeners regularly send photographs of their gardens or of particularly successful bounties to Green Light and these photographs are stored in Green Light's database.
- ✓ Green Light has recently become a member of a Seed Library program in New Orleans, and offers free vegetable seeds to anyone who needs them. This ensures that any Green Light gardener can replant their garden bed, regardless of their financial budget.
- ✓ Two of Green Light's gardeners have moved since receiving their garden, and volunteers have returned to their home and helped them "pack up and move" their garden bed to the new residence.

#### **Challenges**

Green Light faced the following project challenges:

- The collection of follow-up surveys from all Garden program participants following the initial garden build.
- The funding of staff time required to follow up with all 526 gardeners.
- Tulane University students were unable to obtain the exact travel routes of many types of produce (including the distribution centers utilized) from grocery store management because this information is considered proprietary. They assumed the shortest travel route from origin to the store to assure that the data assumptions stay conservative.
- Tulane students were unable to complete the Lifecycle Analysis of food products because they faced too many setbacks with the other project activities.

#### **Lessons Learned**

As a result of the difficulty in funding staff time to answer gardening questions (even though this is a part of the program that Green Light thoroughly enjoys!), Green Light is now expanding the information on its website in hopes of answering more gardening questions online. Green Light also hosts a "Calendar of Partner Events" on its blog that promotes partner farm's workshops for continuing gardening education. All participants enrolled in the Garden program within the last year have been more heavily vetted than previous applicants—phone calls are made before the gardener's class to discuss long-term commitment as well as garden placement possibilities to avoid shade. Green Light has learned how to work with the Tulane class and implements the experience to calculate the carbon footprint of rain barrels in the following semesters in 2017, 2018, 2019.

#### **What Next? What will you do and what should others do?**

For the remainder of 2016, Green Light New Orleans plans to implement the lessons learned over the past few years and modify the program accordingly. Applicants of the Garden program have already begun to be more heavily vetted, and their yards are now explored virtually on Google Earth to examine the possible sunny locations for a garden before entering the applicant into the program. In addition, the

importance of answering surveys is now emphasized in the “Intro to Organic Gardening” class. Green Light is currently researching a local solution to providing soil for the backyard gardens—instead of importing bags of soil from home repair stores, we are working with local compost suppliers and tree cutting companies to create a safe, nutrient-rich soil mix. This will allow our program to purchase soil locally and keep wood and leaf debris out of the local landfill. Green Light is also researching the possibility of designing and manufacturing garden beds with the goal of producing a high-quality, environmentally friendly product. In addition to being used in future garden builds, the raised beds would be available for purchase by garden program participants wanting to expand their initial gardens as well as individuals looking to purchase and install their own garden beds. The sale of garden beds would help provide an additional income stream for the organization, and allow Green Light to serve more households. In 2017, Green Light plans to finish its Tiny Education Center (a Tiny House in the Edible Teaching Garden) that exemplifies green living and, funding provided, to educate 200 more households on organic gardening and help them build a garden in their yard. Green Light will replicate the success of the garden program with a rain barrel program.

For more information about the project please contact:

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