

## **Project Title: Urban Agriculture**

## **Project Leader: Francis Mangan**

### **Project Overview**

Worcester is the second largest city in New England, after Boston, with a population of 181,631 (US Census). As is happening in many urban areas in Massachusetts and other areas of the Northeastern United States, the immigrant population has grown significantly in Worcester. In the 2015-2016 School Year, Hispanics are the largest ethnicity in the Worcester public school system (40.8%), followed by non-Hispanic whites (32.5), African Americans (14.9%) and Asians (7.6%). Hence, Hispanics, African Americans, and Asians together comprise 63.5% of the Worcester Public School System. Current estimates indicate that 73% of students in the Worcester Public Schools are eligible for free/reduced price lunches.

Since this plan was first initiated, we have added two more cities for our urban agriculture and nutritional activities: Springfield (population: 153,703) and Lawrence Mass. (population: 77,657) In Springfield, Hispanics are the largest ethnicity in the public schools (64.5), followed by African American (19.4), non-Hispanic whites (12.3) and then Asian (2.5%). In Lawrence, Hispanics are the largest ethnicity in the public schools (91.6%), followed by whites (5.0). African Americans and Asians are tied at (1.5%) each.

The two goals of this project are the same for all three cities:

1. To increase access and consumption of fruits and vegetables by families in low income, multi-cultural and multi-ethnic neighborhoods in Worcester, Springfield and Lawrence Massachusetts.
2. Increase the availability of fruits and vegetables for people living in the target areas.

Given the large number of Latinos, which include Brazilians, in the target cities, a large percentage of our outreach was prepared and distributed in Spanish and Portuguese, languages that project personnel speak fluently. We grew several crops popular among Latinos, Brazilians and Africans at our research farm and provided them to five collaborating markets in Worcester and one collaborating market in Springfield. We also produced a commercial in Spanish that ran on a popular Latino TV station, Univision. This commercial promoted a healthy recipe of sofrito, a staple sauce used in Puerto Rican and Dominican cuisine; the two largest Latino ethnicities in the target cities. This recipe was promoted at several events in Worcester and Springfield during FY15. We also promoted another recipe called sancocho, popular among Latinos in Worcester and Springfield that had been developed by project personnel in FY14.

**Activity Summary – 2016**

- Crops grown at the UMass Research Farm provided to participating stores throughout the season and promoted to their customers (5)
- Individual visits to markets in Worcester and Springfield Mass (11)
- UMass Urban Ag Facebook page and posts (100)
- Over-fertilization of soils: Its causes, effects and remediation. UMass Extension Fact Sheet. (1)
- Urban Agriculture presentations and workshops (70)

***Total educational contacts***

	Adult Contacts
Direct Contacts	2426
Indirect Contacts (Print, Web, etc...)	1557

**Narrative Summary and Impact**

In the fall of 2015, we finished our work with cooperating markets in in Worcester and Springfield. We were promoting and marketing crops popular Latinos in particular, including aji dulce (*Capsicum chinense*), cubanelle peppers (*C. annuum*), onions and cilantro.

In 2016, we grew 1.5 acres of crops popular among immigrant/ethnic groups at the UMass Research Farm in Deerfield MA. We continued our research and outreach activities with aji dulce with replicated trials of five varieties of aji dulce that we got from the University of Puerto Rico in Mayaguez, the land grant of this US territory.

We also grew several thousand plants of garden egg (*Solanun gilo*) a type of eggplant popular among multiple African ethnicities. We supplied and promoted locally grown aji dulce peppers to several stores in Worcester and Springfield, Mass., with a focus on one popular Latino market in both cities. We also provided fresh garden egg weekly to five markets in Massachusetts in order to establish the size of the markets and the price point. This took place from mid-July through mid-October. This allowed us to establish the size of the market for garden egg, which we estimate to be about 700 lbs./week, with a retail value of more than \$3,500/week.

In addition, we worked with multiple urban agriculture partners in the state. We grew over 3,000 transplants at the UMass greenhouse to provide gratis to a collaborator in Springfield, Garden in the Community. We provided support on multiple aspects of sustainable production to urban agriculture groups in the state, including providing recommendations on soil fertility and pest management. We created a relationship with the mayor of Lawrence and his staff that allowed us to promote locally-grown crops popular among Latinos in the city, including chipilín (*Crotalaria spp*).

## **Collaborating Organizations**

- **Sujeh Ethnic Market**
- **Benjie Market**
- **Jays Food Mart**
- **Sunrise Sunset Mini Mart**
- **Popcorn Market**
- **Abreu Market**
- **Center Market**
- **Compare Supermarket**
- **Fleet Street Market**
- **Worcester Meat Market**
- **UMass Memorial Hospital. Worcester Mass.**
- **Cavicchio Greenhouses. Sudbury, Mass.**
- **InterAmerician Society for Horticultural Sciences**
- **Family Health Center of Worcester**