Soil Testing

Project Motivation & Goals

Food insecurity is a prevalent issue in low-income communities around the world, with those at the blunkest end of its force having to endure with little to no assistance. In 2022, food insecurity in the U.S. was higher for households with incomes below the federal poverty line, with 36.7% of them having low or very low food security and the majority being Black, Hispanic, and/or single-parent households. In Windham, CT, about 18% of the population experiences food insecurity (Fig. 1a). In 2023, at least 50% of those who received SNAP (Supplemental Nutrition Assistance Program) benefits in Windham are minorities, most being of Hispanic/Latino or Spanish origin (Fig. 1b).

In an effort to reduce food insecurity in Windham, CT, we are increasing access to food for Windham's community by restocking “La Refrigeradora Comunitaria”, a publicly accessible community fridge with supplies from the adjacent food pantry, run by the Windham Community Food Network (WCFN). Along the same lines, CLICK’s (Commercially Licensed Cooperative Kitchen, Inc) community garden and orchard are also in need of soil testing to ensure they are prepared for the growing season for public enjoyment and use this year.

These services are important to ensure that everyone has, at the very least, something to eat and/or drink, despite any economic hardships contributing to the food insecurity they may be facing.

Objectives:
- Develop and implement a process to consistently restock the communal public fridge with food, beverages, and other necessities.
- Conduct soil tests at CLICK’s garden and orchard.

Soil Testing

Purpose:
- We tested the soil for any developing nutrient deficiencies or pH imbalances to identify needs before planting or harvesting produce from the garden and orchard, to prevent problems with crop production.

Process:
- Location of soil testing sites:
  - 10 different garden beds at CLICK in Willimantic, CT
  - 4 different trees in the orchard at CLICK in Willimantic CT

- Soil sample collection: We took a half full cup of soil from each bed and tree in orchard, combined them, and collected the mixed samples in two resealable bags (Fig. 2).

- Testing process:
  - We sent soil samples to the UConn Soil Nutrient Analysis Laboratory for a Standard Nutrient Analysis.
  - Tests: pH, minerals (calcium, magnesium, copper, lead, and more), Cation Exchange Capacity, % Base Saturation

Results & Impact:
- We’re still awaiting the soil test results.
- CLICK will use results for setting up the garden in the future.
- Soil testing will provide guidance on lime and fertilizer usage.

The Community Fridge (La Refrigeradora Comunitaria)

Purpose:
- The Community Fridge was undergoing a change in its management and needed a caretaker during this transition, especially since many people in the community rely on it for access to food.

Process:
- Visited the Windham Community Food Network Pantry and the Community Fridge to learn the steps and proper protocol for restocking the Community Fridge (Fig. 3).
- Every week, we emptied, cleaned, and restocked communal fridge/pantry with food, drinks, and toiletries retrieved from the Windham Community Food Network pantry.
  - Materials: Boxes, Gloves, Disinfecting Wipes, Paper Towels

Impact:
- We restocked 1,416 items: 945 drinks, 228 non-perishable food items, and 243 toiletries (Fig. 3).
- The major outcome was in having successfully provided a means for anyone financially challenged to have access to clean food, water, and toiletries; in an attempt to help curb food insecurity in Willimantic.
- Although people were not socially interacting with each other, people had the option of eating and chatting with each other, while the staff members at Click had the ability to learn about the needs of the Willimantic community.
- A strong communal environment was ultimately promoted.
- Our 12-week-long services also eased the workload of the Windham Community Food Network.

The Community Partnership

Communities are filled with organizations and key people that are working tirelessly to address environmental and social injustices in Willimantic. Our community partner Dianisi is one of those assets as she is very knowledgeable on the needs of the Willimantic community.

Working at CLICK Willimantic (Fig. 4), she has connections with the Windham Community Food Network (WCFN) and put us in touch with Melanie, formerly responsible for the Community Fridge, so that we could take care of the fridge while she transitioned out of the role. Dianisi is also an Extension Nutrition Outreach Educator at UConn and worked with us to develop the project.

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Conclusion and Next Steps

Conclusion:
This project opened our eyes to the people in need in our community and allowed us to give back while The Community Fridge transitioned into new management. Helping others in ways with no benefits for ourselves has helped improve our character, integrity, and humanity, along with making fun memories to cherish and laugh upon. In retrospect, we think this project was an excellent opportunity to connect with our community.

Next Steps:
Although we have finished our part in keeping The Community Fridge alive, it will be a vital part of the community going forward. There are people in the community that are often overlooked or forgotten about that rely on systems that tackle food insecurity like SNAP Benefits, the Windham Food Network, and The Community Fridge. Support for these vital programs through funding or volunteering is essential.

Acknowledgements and References

We would like to give a special thanks to our community partner Dianisi, who while very notably oscillating between her variety of jobs, nonetheless provided us with the resources to help us achieve our goals. We would also like to thank our mentors Adriana and Edwin for their guidance and support throughout the project.

Resources:
- Dianisi, M. (2022). Personal communication. Thank you for all the support and encouragement you showed us while you were working at CLICK Willimantic.

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