

# Understanding Your Spaces

Soil Sampling and Research Study at the Spaces of Opportunity Community Garden

Catherine Torrie, Dr. Rebecca Muenich, Dr. Clinton Williams

# Background

- Spaces is a 19-acre parcel of land consisting of over 20 plots for incubator farms, farming plots, and community gardens.
- Farmers are multi-cultural, and all have different backgrounds and farming experience
- Plots are used for community building opportunities, hobbies, and/or for profit. Spaces is a strictly organic garden.





### Methods





#### Sampling Steps:

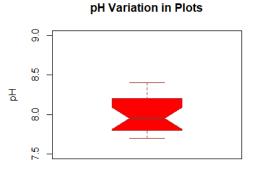
- -Find Designated Plot
- Brush aside any mulch or topsoil. Dig about 4-6 inches deep in with trowel and add 2 scoops to bucket.
- Take 3-4 more samples in the designated area, wellspaced out, to represent the entire space.
- -Mix well in bucket, break up clumps, and add a cup of soil to labeled bag

## **Project Summary**

This study takes quantitative data through soil samples tested at a lab for pH, Electrical Conductivity, Calcium, Magnesium, Sodium, Potassium, Nitrate, Phosphate, Free Lime, ESP (%), CEC, Total Organic Carbon, and connects this with qualitative data on how farmers choose to care for their soil and crops. The goal in doing this is to educate farmers on how their work connects to the needs of their soil and plants

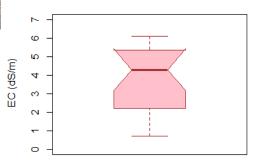
#### Outcomes

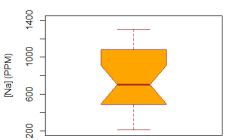
Certain parameters are more concerning the others, particularly sodium concentration/conductivity.



Ongoing work to compare with management.

**Electrical Conductivity in Plots 7-29** 





Sodium Concentration in Plots 7-29

This work is supported by the USDA National Institute of Food and Agriculture, Capacity Building Projects for Non-Land Grant Colleges of Agriculture project 1017146, grant number 2018-70001-28751.







