

# MY COMMUNITY, OUR EARTH

## MIAMI

# TECHNICAL FARMING

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**Problem Statement:** How do South Florida farmers use technology to cultivate food that will provide for the local population?

The purpose of this study was to identify the different technology and methods used in the intensive and extensive farms of Homestead, Florida. The research conducted inevitably relates to the process by which food is produced and sold to the local organic markets of the region. Lead by expert guides from the Fruit and Spice Park of Homestead, the history of the native plants, their role in local agriculture, and the way they were produced were carefully demonstrated.

The key to organic farming is proper irrigation. Farmers in the humid Florida heat must make certain plants are adequately hydrated if they hope to produce the necessary yields. This process, combined with tractors, automated planters, and weed-destroying equipment created a healthy and nutritious environment for the fruits and vegetables to thrive in. Without such tools, harvesting crops in the Redlands area would prove both difficult and economi-

cally unrealistic. Our investigation proved that fruits cannot be properly grown, maintained and harvested without their usage. “Proper irrigation water management

The truck is used as an irrigation system.



is the most important practice in preventing this.”

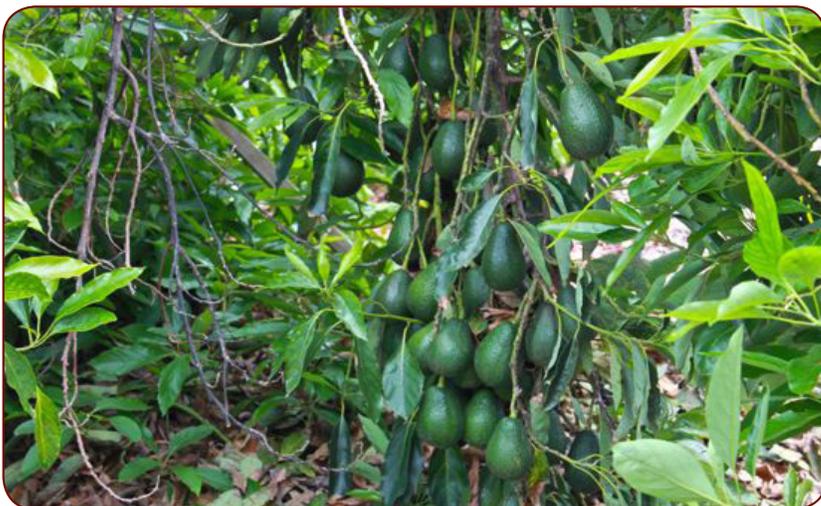
Another aspect of the research proved the importance genetics plays in the growing process. While the various farmsteads in the Redlands region demonstrated a wide array of crop variety, the farmers at the “Mani Farm” explained how scientific tools were as vital as a rake and shovel. Farmer’s onsite explained that the avocado market in Miami-Dade County was saturated and new forms of the plant



Tool shed holds the equipment the farmer uses in the area bordering the Fruit and Spice Park.



Heavy machinery preparing the land for planting.



Uniquely engineered avocados in their infancy.

required cultivation in order to generate a profit. By finely slicing avocado species and graphing their genetic strand to an older tree stump, a new form of the fruit would blossom within months. Various scientific tools, including species-specific microscopes and biologically safe adhesives were necessary.

### Conclusion

While the proper use of technology is crucial in securing the necessary food supply for the region, experience with such tools will grant the optimal food security the local market demands. This allows for large amounts of fruits and vegetables to be produced. In addition, these tools can be utilized to create uncommon, even rare breeds of plants that can ultimately prove more profitable overtime.

### Resources

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### Major Green Markets in Miami-Dade County “F” represents Green Farmer's Market.



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swissstopo and the GIS User Community

