



New York-based Community Project Gets an Off-Grid Solution to Farm Multiple Crops

Overview

Wally Farms required an indoor farm constructed of re-purposed shipping containers to serve the community through growing a range of micro and leafy greens for local production.



Objectives

Wally Farms wanted to create a farming community and uplift others through action and the ongoing research of carbon neutral farming. The project also entailed learning how to better recycle water; how to farm utilizing solar power and operate off the grid; and how a 24/7 container farm operation could help address food insecurity, but not compete against other farmers.

Solution

Wally contracted Box4Grow to build a grow facility that would allow it to rapidly deploy and scale its operation and maximize yields. The Box4Grow team designed an interconnected container grow system. Each room in the facility was linked through a single access hallway with security and ease of access from room to room as a top priority, while maintaining a closed, sealed environment. The project was delivered in three phases. For Phase 1 included six containers, including one 40-foot-long growing unit with five support containers outfitted as:

- 1 mechanical room for the nutrient tanks
- 2 energy storage containers
- 2 containers that created an office
- 1 workroom, walk-in, bathroom, and clean room container that provides access to growing containers



Results

Box4Grow delivered six containers and situated them on concrete piers on a small clearing located at the Wally Farms property.

Now, Wally Farms is an off-grid, fully operational container farm that utilizes the six grow containers from Box4Grow. The farm grows 200+ seed varieties of leafy greens, lettuces, herbs and medicinal herbs, edible and medicinal flowers, and other hand-selected vegetables. It used one of the containers as an experimental room to grow different crops with three distinct hydroponic growing systems:

- 1) Nutrient Film Technique
- 2) A Dutch Bucket System utilizing soil and drip irrigation
- 3) Grow Racks utilizing flood-and-drain hydroponics.

The Farm also compared different fertilizer solutions, including one made from organic plant waste. The remainder of the boxes were used to grow specific varieties that had proven to be successful in the experimental box.

Wally Farms was able to cut labor to an hour or two a day per unit, as automation through technology now carries a lot of the load.

ABOUT



Box4Grow's grow rooms are scalable grow facilities designed by growers for growers. They give both professional and personal growers the freedom to design their own space and build a sustainable and flexible horticultural business. Each grow facility is designed for easy operation, allowing users of all backgrounds to immediately start growing. Each grow room provides an engineered growing environment with optimal lighting and temperature that provides a closed environment to prevent contamination, unlike a greenhouse operation.

Ranging in size from 10 feet to 40 feet, the Box4Grow grow rooms enable you to configure a growing system that fits your unique budget and space requirements. They provide the fastest and most efficient way to launch or expand your operation with time to value measured in just 12 weeks. On arrival they are simply hooked up and turned on so you can generate revenue in as little time as possible. **Learn more at www.grow4box.com.**