

# "Disabilities don't impair raising lettuce"

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Locally-grown lettuce, herbs, and greens can make a positive impact on any community, but at The Ability Connection's hydroponic farm in Springfield, Ohio, they take this one step further. The Abilities Connection (also known as TAC Industries) is a nonprofit that employs, connects and cares for people with developmental or physical disabilities. People employed by TAC make a variety of products, and in 2008, a hydroponic greenhouse was added to the mix.

"Once the indoor operation began it was very popular with our workers-in-training", says Lou Driever, who coordinates hydroponic operations. "We developed a business plan to market a larger volume of produce within the community and raised funds to build our hydroponic greenhouse. Our customers have included the public and private schools, restaurants, the local culinary institute and farmer's markets."



## High tech

The greenhouse workers can enjoy all the comforts of advanced technology. For instance, the indoor 360 square foot hydroponic operation uses a Crop King 10-36 system with eight propagation trays and 24 nursery / finishing channels. The nutrient / pH control system is a Blue Lab Dosemeter. Fourteen fluorescent lighting arrays using Arize units are utilized.

The outdoor 3,024 square foot hydroponic AgraTech greenhouse uses an American Hydroponics Crop Turn system with eleven propagation trays and a total of 200 nursery/finishing channels. The greenhouse has an AgraTech energy shield retractable curtain (shade cloth) and is cooled both by 3 Acme 48" fans and a cooling wall. Two Modine heaters provide 350,000 BTU when needed in the winter. Four Acme horizontal air flow fans provide appropriate circulation. A Microgrow programmable environmental controller tracks and compensates for internal / external weather variations. A Nutridose Autogrow system is tied to a iGrow 1600 / Link 4 system to control EC and pH variations. An Agrosun 1000w halide high output light system supplements natural lighting in the greenhouse.



### **Sensors and seeds**

Remote sensors on both controllers notify management in the event that submersible pumps stop or if the pH or EC levels are outside acceptable tolerances. "These are all checked on a daily basis whilst on property but it's crucial to have remote sensors so incidents that may occur out of normal business hours can be dealt with immediately", Lou explains.

As for seeds, Johnny's Seeds is the preferred vendor for TAC Farms. They are currently raising the following varieties: Adriana Butterhead Lettuce (2358JP), Monte Carlo Romaine Lettuce (3207JP), Muir Batavian Lettuce (3881GP), Allstar Gourmet Lettuce Mix (2301), Red Russian Kale (363), Ruby Red Orach (3999.25), Calypso Cilantro (3803.30) and Red Malabar Spinach (2437.26).

Other equipment includes a Dramm fogger, American Hydroponics specialty cleaning tools, both Smithers-Oasis and Grodan substrate, American Hydroponics fancy lettuce nutrient mix and Seabright Sticky Traps. Harvested crops are stored in an Eliason walk-in cooler (with remote sensor array). They use a Homdox 3000 pressure washer with a clog hog to keep the channels clean.

"We also have two Tower Garden Aeroponic systems that may be used to raise either herbs or cilantro. These units are located in our greenhouse and can support 28 grow sites each."

### **Classical music**

In addition to cultivation technology, the greenhouse also features loudspeakers... "We play classical music over the loudspeakers 'for the plants' (it's actually for all of us!)", Lou says. "Our individuals enjoy the process of planting, nurturing then harvesting the crops. They are proud of their work – and appreciate having the opportunity to be active members of the work force. While US unemployment is 4% overall, among disabled persons it is over 9% and in Ohio it exceeds 17%. Our 12 greenhouse workers enjoy being able to participate here and to learn skills / gain experience that will translate into their transition to an integrated work setting."



### **Building a community**

The Abilities Connection is also reaching out to the community in other ways. Their salad bar, called "Fresh Abilities", will open in downtown Springfield at the end of January. The old city market (from the late 1880s) has been refurbished and will host a local brewery, four local restaurants (including the salad bar), a catering kitchen available for rent and 18 shared office spaces. This is part of the COhatch group.

And the future is looking bright, thanks to a recently organized "Growing Opportunities Partnership". The MOU was recently signed, with members including The Arnold Center/WeGrow of Michigan, Developmental Disabilities Institute of New York, Greens Do Good of New Jersey, Lettuce Dream from Missouri, Medina Creative Produce in Ohio, the Murdoch Center in North Carolina, Peacehaven Farm (also from North Carolina), The Abilities Connection/TAC from Ohio, the Trellis Center of Washington state and Zeponic Farms in Virginia.

"We made our first application for a Bill & Melinda Gates Foundation 'Grand Challenges' grant. Our goal would be to each contribute 40 pounds of produce per week to our local food banks for food insecure members of our communities. If we all met that goal the result would be ten tons of produce donated across the course of a year!"

Several members of the group will be attending a greenhouse management workshop on Sustainable and Safe Crop Production put on the Ohio State University in Wooster, Ohio on 16-17 January 2020. This will be the first time the group meets in person instead of via pixels - if you're planning to attend the workshop, be sure to say hi to Lou and his team!

For more information:



### **TAC Farms**

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