

Our Story

Hort Americas is excited to announce that it has officially partnered with Big Tex Urban Farms and the State Fair of Texas. Our joint efforts include:

1. Becoming a thought leader in the development of urban agriculture.
2. Testing and proving equipment in medium-tech greenhouses located in a hot and humid environment.
3. Providing residents of South Dallas communities, which have been designated USDA food deserts, with access to fresh produce through a variety of local charities (partners.)

The greenhouse is located on the state fairgrounds just feet from the historic Cotton Bowl. The hydroponic production systems include: (2) floating rafts systems, (1) organic raised bed, (2) nutrient film technique (NFT) systems, multiple multilayered ebb-n-flow growing systems, (3) separate dutch bucket systems and room for expansion.

Technology Systems

Each of the production systems utilizes unique technology designed to work both operationally and economically in a medium-tech greenhouse. This technology includes:

1. LED grow lights from Current, powered by GE.
2. LED grow lights from OSRAM.
3. Wireless sensor technology from 30MHz.
4. A nanobubble generator from Moleaer.
5. Custom-built, multilayered grow racks from Hort Americas for germination, propagation and microgreen production.





Products and Processes Currently Being Demonstrated

Our goal is not to conduct pure research. Our goal is to take commercially available (or close to available) products and technology and prove that we can make it work under real world growing conditions using local labor. We are looking for results that would be economically viable if commercial growers were to invest in them. The State Fair greenhouse is open to the public and the results will be shared through either the Hort Americas blog or Urban Ag News.

Current demonstrations include:

1. Dissolved oxygen comparisons.
2. LED grow light trials: broad spectrum (white light) vs pink or purple light.



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NCERA-101

Chris Higgins

chiggins@hortamericas.com

3. Organic hydroponic production of leafy greens and tomatoes using different commercial fertilizers.
4. Microgreen production with different commercially available substrates.

Problems

Because most of our staff has less than one year of hydroponic growing experience, we have experienced many learning opportunities. This is part of our plan. In order to become a thought leader, we need to understand what it is needed to get a new work force up and running in an urban environment. We need growers, which means we have to train growers. We rely heavily on access to extension specialists to troubleshoot technical issues and provide learning opportunities.



Accomplishments

Our project is only 1½ years old and we have already provided more than 250,000 servings of fresh locally-grown produce to the residents of South Dallas.

Our Mission

To link the North American controlled environment agriculture community with the technologies, products and services needed to grow profitable crops while at the same time doing right by the communities and environments we conduct business in.



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Learn more by reading these articles:

<https://hortamericas.com/blog/news/big-tex-urban-farms-is-using-hydroponics-to-achieve-its-million-servings-mission/>

<https://urbanagnews.com/blog/exclusives/big-tex-urban-farms-uses-hydroponic-systems-to-teach-feed-local-dallas-residents/>