

# Urban farm of the future

## A research and demonstration project

### A need for urban food security: Background

- Findings by the U.S. Department of Agriculture, published in 2022 and 2016, reveal a critical need to address urban food security challenges, energy and water sustainability, and education of the next generation of the work force.
- Current events signal a critical time to establish a private-public partnership to conduct research, evaluate, deploy and demonstrate that innovations in Controlled Environment Agriculture (CEA) will be sustainable in urban food production.
- More than twenty vertical farming companies have created a coalition to support a sustainable food system.
- A team consisting of academia, industry, venture capital, and community development leaders have created a concept for making CEA — through advanced greenhouse and vertical farm systems — an integral part of producing food for communities in urban food deserts.

**13.5 million**

food insecure households in the U.S., 10% of U.S. households

*-U.S. Department of Agriculture, Household Food Security in the United States in 2021*

**5.1 million**

low food security households in the U.S., 3.8% of U.S. households

**39.4 million**

Persons living in U.S. low-income, low supermarket and grocery store access census tracts

*-USDA-Economic Research Service Low-Income and Low-Supermarket-Access Census Tracts, 2010-2015*

### Objectives

The Urban Farm of the Future project aims at reducing food deserts in urban Texas communities. To accomplish this goal project partners will utilize integrated new technologies and more efficient systems to develop local, safe and nutritious foods through environmentally sustainable and resilient CEA production systems.

The project intends to develop a CEA platform to be used in a range of urban centers of varying scale, environment and socio-economic demographics.

The platform would demonstrate development, integration and benefits of state-of-the-art CEA technologies in communities of need.



### Anticipated outcomes

The Urban Farm of the Future project objectives aim to empower local communities by involving them in urban food education and production:

- Unite communities around healthy food systems.
- Integrate technologies toward a net-zero footprint of urban agriculture production systems.
- Create job opportunities for community members.
- Develop a talent pipeline for the CEA industry — solving a current gap in CEA scalability via education and training.

## Potential collaborators: Establishing a stakeholder consortium to support CEA platform development

Establishing a stakeholder consortium is the first step toward detailed plans for the development and implementation of the Urban Farm of the Future CEA platform research and demonstration project.



### **Texas A&M AgriLife**

With expertise in agricultural production, omics, genetics, breeding, biotechnology, and recent investments in faculty resources dedicated to CEA we have a strong track record as a foundation.



### **Intel**

A leading technology company that brings cutting edge applications and other software and hardware partners can help create novel solutions and pathways to integrating systems.



### **Thrive by SVG Ventures**

A venture and innovation company geared towards helping advance the food and agricultural industries with partners across the industry.



### **Black United Fund of Texas**

A group of community-based organizations and individuals working to address the food insecurity challenge in low-income communities in the Fifth Ward and Acres Home. They are working to create substantive change in these communities through agriculture.

