



## **Plenty Unlimited Inc. NCERA101 Station Report 2020**

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### **About Plenty**

Plenty improves the lives of plants, people, and the planet by developing the world's most advanced indoor farming platforms to grow craveable, nutritious, high quality crops at scale. Our near-term focus is produce, while our longer term vision is further diversification of our crop portfolio to empower global populations to eat full diets comprised of delicious, healthy, and sustainably produced ingredients. We see developing robust R&D partnerships with a diversity of stakeholders through intellectual communities such as NCERA101 is essential to achieving this goal.

### **Growth**

- Over the past fiscal year Plenty grew to over 300 employees. A large part of this growth represented targeted hires in the R&D branches of both Plant Science and Engineering. Promoting a culture of cutting-edge interdisciplinary innovation remains our priority.
- Over the past fiscal year Plenty officially began commercial production at scale on its first fully automated farming platform - Tigris.
- Iterative learning and a drive for constant improvement is a cultural pillar of our institution, as such we have confirmed plans to build the next generation of our farming platform in Compton, CA with an expected launch date in 2020. This next farm will incorporate learnings from Tigris, allowing us to build a larger and more efficient production platform.

### **Partnerships**

- An essential component of our core business plan concerns external engagement with experts as well as creating opportunities for student growth and development.
- Plenty has participated in multiple conferences with invited talks and special sessions, including the Department of Energy's Advanced Research Projects Agency-Energy (ARPA-E) annual review of its TERRA, ROOTS, and SmartFarm programs.
- Plenty is actively engaging in external R&D engagements that span topics from food safety through crop improvement and that involve diverse stakeholders, including:
  - University of Arizona -- New crop development
  - University of California, Davis -- Microbiome and Food Security
  - Stanford University -- Advanced sanitation
  - United States Department of Agriculture, Agricultural Research Services -- Food safety, plant pathology, and new crop development

### **Accomplishments and Innovations**

- We are making strides in AI-enabled adaptive management for lighting and irrigation
- We are actively developing a robust breeding program
- The Plant Science team has tested over 700 varieties across different crops.
- We continue to work towards improved flavor and production techniques for indoor-grown strawberries, with an eye towards launching commercial production soon