

GEORGIA DEPARTMENT OF ECONOMIC DEVELOPMENT

Innovations in Agricultural Technology



Photo Credit: Pure Flavor© – 2021



CENTER OF INNOVATION

Strategic industries:

- **Aerospace (Atlanta and Macon)**
- **Agricultural Technology (Tifton)**
- **Energy Technology (Atlanta)**
- **Information Technology (Atlanta & Augusta)**
- **Logistics (Atlanta & Savannah)**
- **Manufacturing (Atlanta)**

COI Leadership Team



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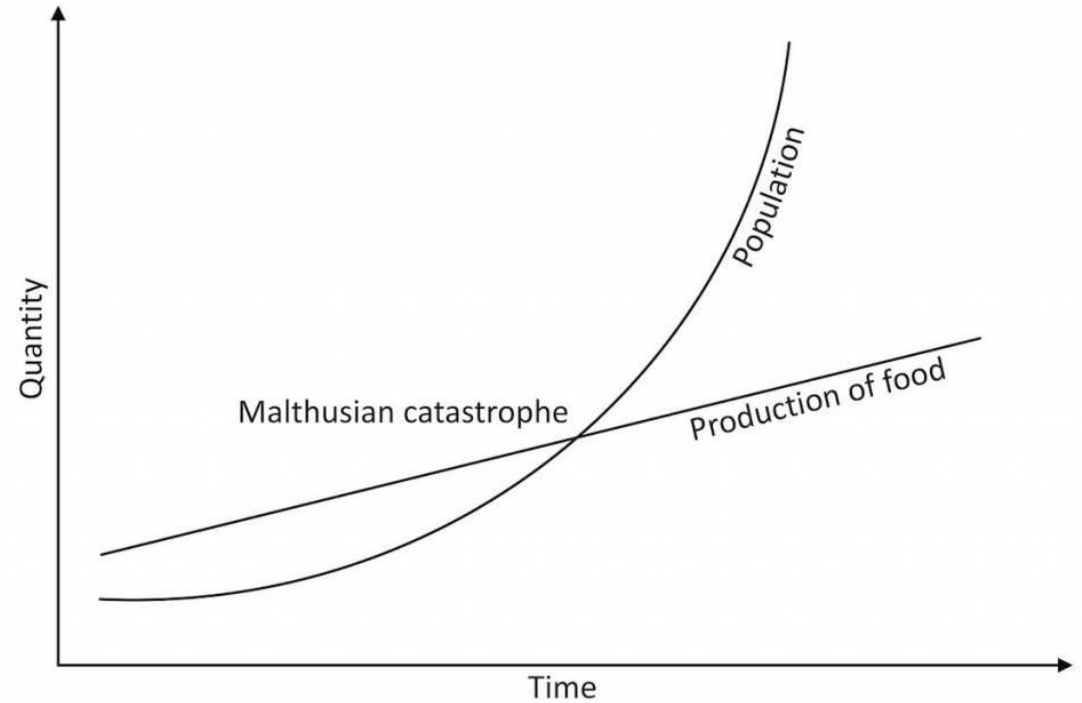
Manufacturing

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Why Ag Technology? Thomas Malthus?

- “The power of population is so superior to the power of the Earth to produce subsistence for man, that premature death must in some shape or other visit the human race.” –Thomas Malthus, 1798
- Malthus didn't understand or account for the introduction of technology.



Agricultural Technology

Focus Areas – Growth Areas



Integrated Precision Agriculture

Drones

Crop sensors – cell phone apps

Variable rate irrigation

Autonomous tractors



Controlled Environment Agriculture

Greenhouse vegetables

Year-round leafy greens

Introduction of “exotic” crops



Food Product Innovation

Taking traditional commodities and making them into a product



Food System Technology Integration

Food processing

Waste stream to revenue

dianafood
Part of Symrise Nutrition



AgTech Ecosystem



- University partners
- Technical colleges
- State agencies
- Industry



UNIVERSITY OF
GEORGIA



Georgia Research Alliance

30 Years Strong

GEORGIA
grown



Boehringer
Ingelheim

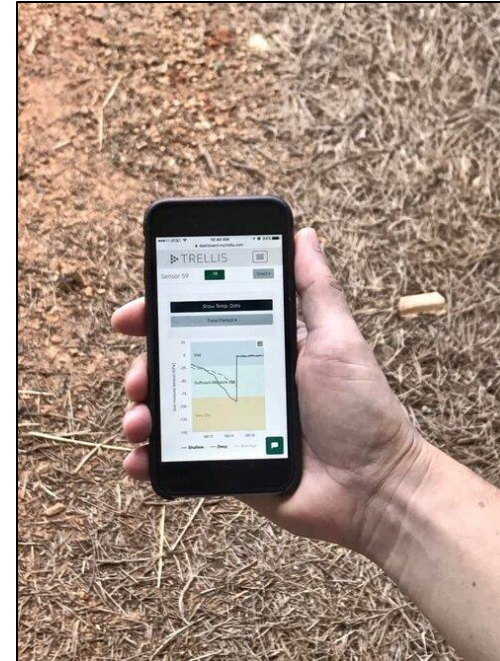


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Integrated Precision Ag: Trellis

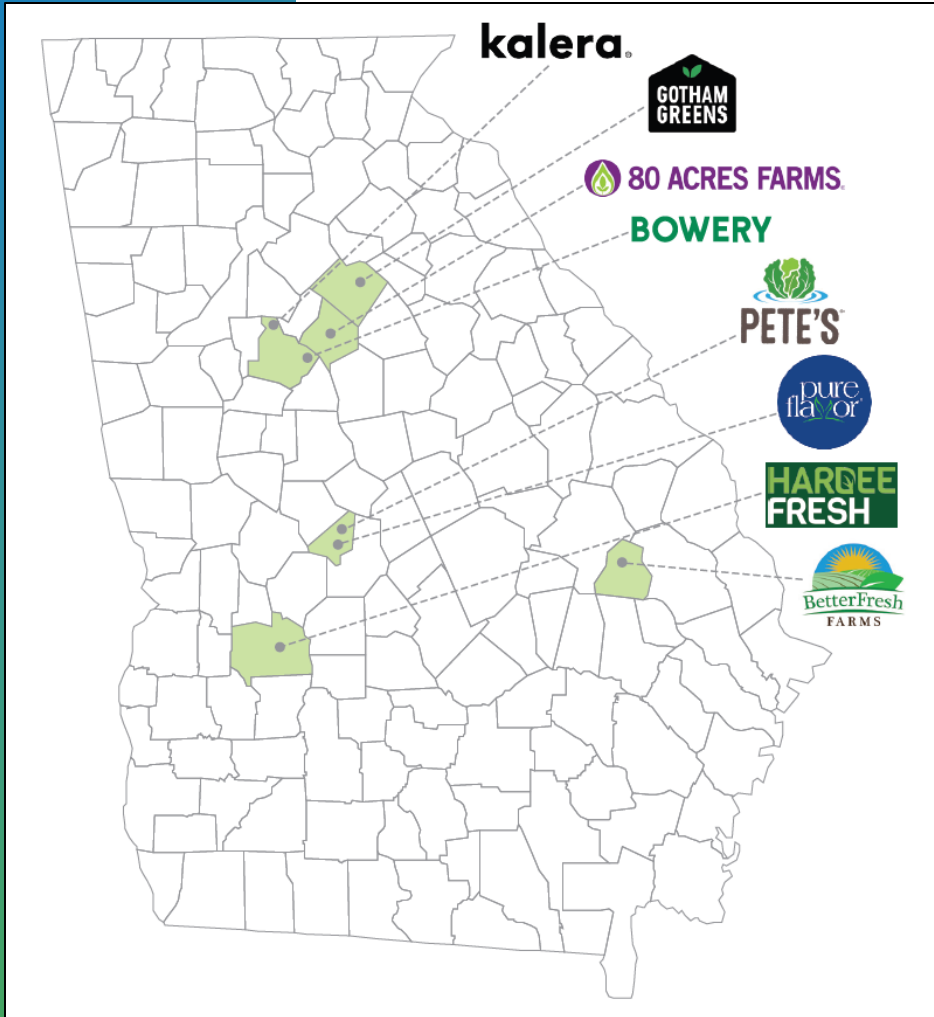
- Soil moisture sensor that can be monitored with cell phone app
- Created by a team of GA Tech aerospace engineers in 2015
- Manufactured in Peachtree Corners, GA



Source: mytrellis.com

Controlled Environment Ag

- Zero facilities in 2017
- 6 large, 2 smaller facilities by 2022



Food Product Innovation: Sweet Grass Dairy

- Family dairy farm in Thomasville area
- Has been making cheese on-farm for many years
- Approached the Center of Innovation with the idea of increasing their product shelf life.
- Partnered with Center of Innovation and UGA's Food PIC in Griffin to research product.
- Now able to ship nationwide and just recently export internationally.

Source: SweetGrassDairy.com





Food System Tech Integration: Max Manufacturing

- Ag equipment manufacturer in Pelham, GA
- Designed a poultry composter to replace incinerators on poultry farms. Completely automated.
- Partnership with Max Manufacturing, Center of Innovation, and University of Georgia to research composter in farm setting.
- Result: now has the data to increase sales across the Southeast.

Photo by Chris Chammoun

How far? How fast? Can we sustain this pace? 2069?

First mechanical commercial cotton harvester-
1949 International Harvester Single Row



Source: Tulare County Library

Current 6 row cotton harvester – 2009 John
Deere introduce on-board module builder



Source: Chris Chammoun

THANK YOU!

QUESTIONS?

www.georgia.org

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