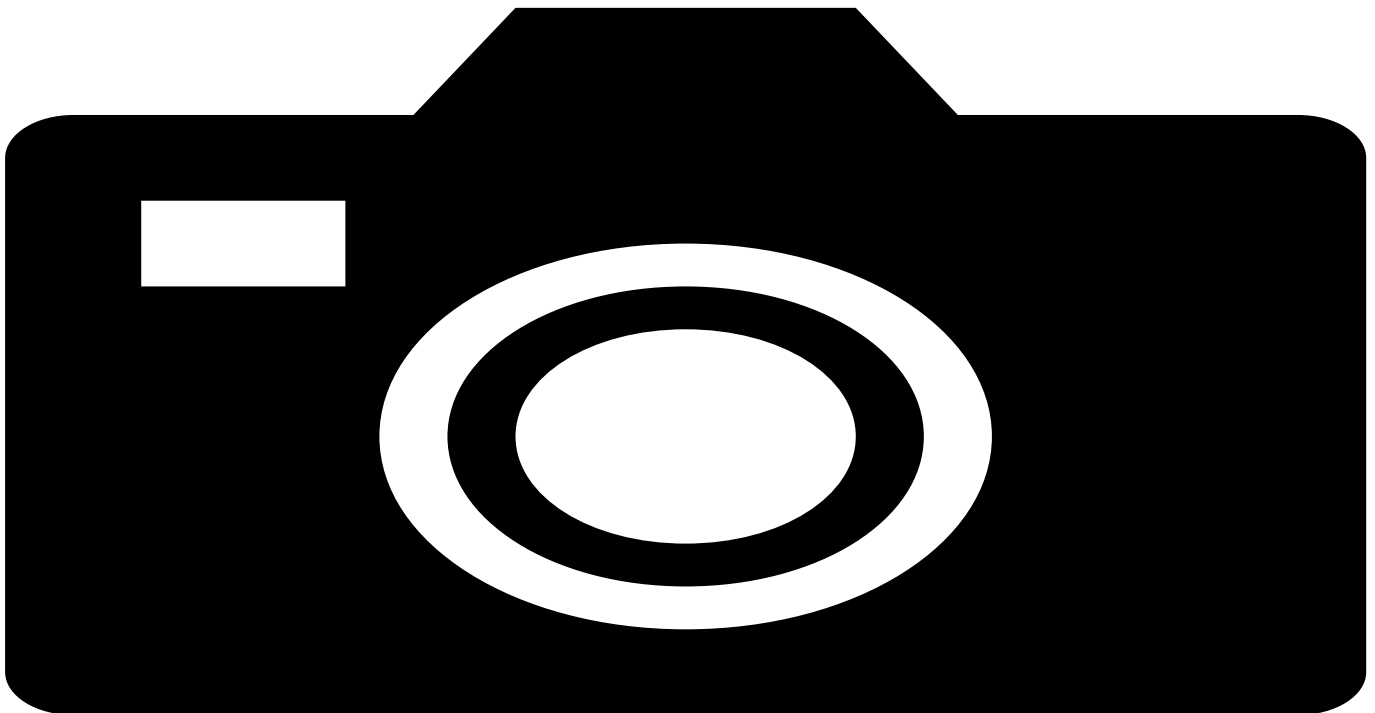
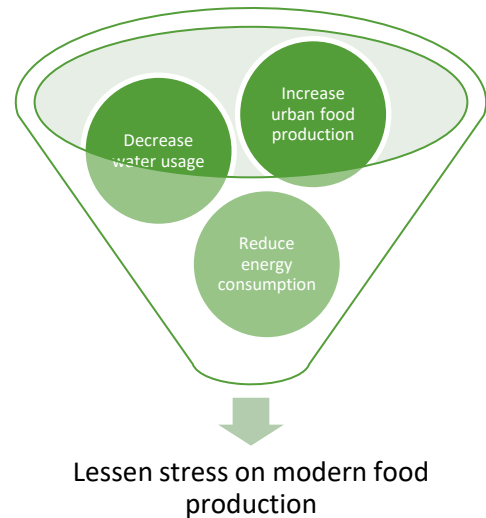


Legal Status: Patent Pending (Design and Utility Provisional Patent)

Business Case

PANGEA is an outdoor hydroponic urban farm harvesting food, water and energy. Incorporating water collection with solar, and wind power capture technologies to sustain the garden and its immediate surroundings. There is a strong global interest to increase urban food production while reducing energy consumption to lessen stress on the modern food production system. Named after the hymn (Pange) of St. Thomas Aquinas and the supercontinent Pangea it is proposed that the Pangea system can address the global needs by bridging the gap between food, water, and energy.

Features and Benefits



Classic Food Production Challenges

- **Production**
 - Water usage for farming and irrigation
 - Labor hours to germinate and cultivate crops
 - Water and soil/land contamination
 - Land degradation from deforestation to desertification
 - Public utility costs from electricity to water
- **Distribution**
 - Economic and environmental costs
 - Anthropogenic emissions like carbon dioxide to transport goods
 - Distance between production, processing, and consumption facilities

Modern Food Production Solutions

- **Production**
 - Reduce water consumption by rain water collection for farming and irrigation and bottle excess
 - Eliminate land and water degradation/usage through eb-flow, deep-water culture, and drip irrigation techniques
 - Computer-based software and hardware reduce intensive labor hours and costs
 - Energy capture technologies to power farm and excess to immediate surroundings

- **Distribution**
 - Economic and environmental savings by urban farming
 - Reducing carbon dioxide emission through transporting goods
 - Bringing food production to urban communities

Product Market

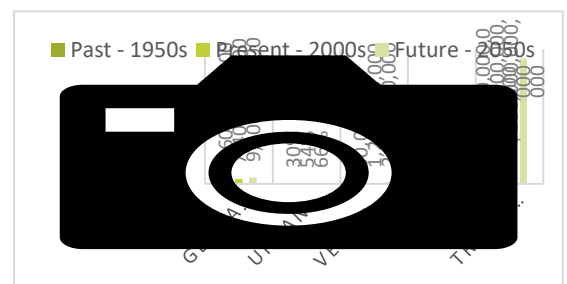
- **Urban Farms – 1/5 Global Food Production in 2015**

The largest of 6 U.S. agriculture sector are food service and food manufacturing.

- 21.6 million full- and part-time jobs and food sectors—11.0 percent of total U.S. employment in 2017
- 12.9-percent share, food ranked third behind housing (33.1 percent) and transportation (15.9 percent) in a typical American household's 2017 expenditures
- Agriculture, food, and related industries contributed \$992 billion to U.S. gross domestic product (GDP) in 2015, a 5.5-percent share.
- Americans' expenditures on food amount to 13 percent of household budgets on average.

Business Segments

- Farmers Markets
- Chefs, Restaurants, and Eateries
- Food and Beverage
- Hospitality
- Food Processing Corporations



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Market Strategy

- **Customer Market-** Nutritional health conscious consumers. Farmer's market goers. Chefs at local restaurants and eatery's. Hospitality, catering services, and food and beverage producers.
- **Ecommerce-** Provide digital experience showing what is in stock or season with pick-up and delivery services via 3rd party
- **News-** grassroots campaign consisting of academic and professional research and development
- **Social Networking-** Share updates encompassing the business and its industry related news.
- **Recruitment-** Participate in academic and professional conferences, farmers markets, and community garden centers.
- **Political/Interest Group-** Enlist in industrial societies in related business segments

Value Propositions

- **Customer-** Provide locally produced food, water, and energy with no difference in price, quantity, or quality.
- **News** – Solution to UN Sustainable Development Goals, Locally produced food, water, and energy promotion. Environmental savings and economic benefits.
- **Social networking-** Interact with snapchat Address customers using Twitter. Recruit through LinkedIn.
- **Recruitment-** Flexible, challenging, problem solving, leadership, creativity, technological exposure, indoor and outdoor environment, and altruistically rewarding
- **Content Creators (YouTube)** – Highlight company and industry news
- **Political/ Interest group** – provide products, services, and consultations

Consumer Demographic

- **Type-**
- **Ages-**
- **Industries-**
- **Average Income-**

Production Costs

- **Economic Per Unit**
 -
- **Environmental Per Unit**
 -
- **Human Per Unit**
 -

Revenue Model

- Possible revenue streams
 - Production and Distribution of
 - Crops
 - Food and Beverage to Textiles
 - Renewable Energy
 - Wind and Solar
 - Water
 - Potable
 - Waste
 - Compost
 - Food waste

Financial Model Forecasting

Targets/Milestones

- Develop PANGEA proof of concept and prototype on small scale
- Conduct comparative analysis on PANGEA system and classic soil bed
- Examine human behavior with PANGEA system in urban, highly dense foot traffic areas
- Develop Sustainable Development Pro forma or ESG metric-tool database measuring PANGEA's financial, social, and environmental impact
- Construct small commercial grade greenhouse of PANGEA system
- Expand concept and integrate inside densely populated urban environments
- Sign lease agreements or purchase and construct land to retrofit existing parking garages into urban farms
- Expand upon other markets, regions, and climates
- Corporatize PANGEA by successful bid to construct or renovate a sports arena or stadium

Team

James Adams:

Bachelor of Science Economic Finance with a minor
in Engineering Technology and Sustainability

Inventor Seeking Employment

jsadams3693@outlook.com

(713) 899-6294