



### Today's Agenda:

- Lightning Presentations:
  - Food Is Medicine Sunflower Foundation
  - Development of Resilient Urban Food Systems that ensure food security in the face of climate change – K-State Urban Food Systems Initiative
- RFSP Grant Project Updates Rebecca McMahon
  - Local Food Producer Workshops
  - Save the Date Local Food Summit
- HRFBC Grant Project Updates
- Discussion & Announcements of local food system efforts in Kansas
- Evaluation



### Welcome Poll:

- Have you attended a quarterly Local Food Town Hall in the past?
  - Yes, more than one time
  - Yes, one other time
  - No, this is my first
  - I'm not sure

 Please put your name, location, and organization or business affiliation (if any) in the chat.





# Food Is Medicine

7 Lessons learned from a pilot project within the Kansas safety net system





### What is FIM?

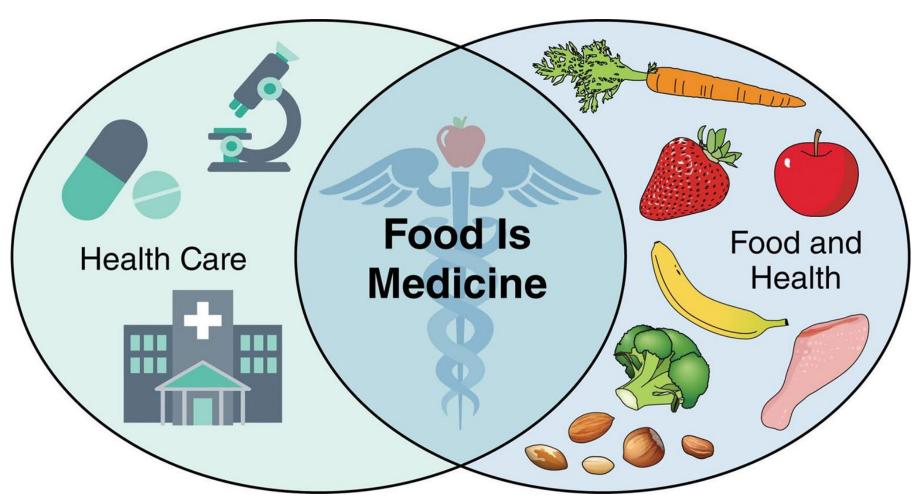


- Food-based interventions with a direct connection to the health care system
- Nutrition as a primary tool to prevent, treat or reverse diet-related chronic conditions.
- In addition to food, interventions may include education, food literacy skills, resource referrals, lifestyle change programs and peer support.
- Attention should be paid to the specific health needs and health equity priorities of different populations.

Source: Food & Society, Aspen Institute. Food is Medicine Research Action Plan. 2022.



# Lesson Learned: FIM Takes a Village





I was initially skeptical of this program...But, the improvements in A1C and some other clinical markers...has made me a believer that this type of program can be lifechanging for patients.

- Provider interview



# Baseline Demographics

69

**PERCENT** 

reported food insecurity

53

**PERCENT** 

on or below the poverty line

48

**PERCENT** 

mild to moderate depression

79

**PERCENT** 

stage 1 or 2 hypertension

90

**PERCENT** 

have diabetes, average HbA1c>9



Zero percent of participants rated their health as "very good" at baseline.



# Quantitative Evaluation



<u>Food insecurity decreased</u>: more people were able to utilize food assistance programs at the end of the intervention.



<u>Increased in fruits and vegetable consumption.</u>



**Hypertension improved** 



Reduction in HbA1c: 60 percent of patients experienced a reduction in HbA1c. Average change in A1c of -0.73. Those with starting A1c >9 changed an average of -1.30.



<u>Impact varied</u>: changes to depression screening varied among clinics, BMI did not change



# 55

"I farm and in the fields all day. I didn't pay any attention to what I was eating. I gained so much weight that it was hard for me to get into my own tractor. I learned [from the program] about mindful eating. I've been going out for drives when I get hungry. I've lost weight. Last week was the first time in a long time I was able to get in my tractor."

- Participant interview

# Paying for FIM in KS

<u>Healthcare payers</u>: very limited currently, strongest strategy for long term sustainability

<u>Federal grants</u>: some current activity, optimistic outlook

<u>Philanthropy</u>: active currently, limited long term capacity

<u>Academia</u>: high interest to study, funding source unclear















### **Prioritizing Nutrition at HHS**

- National Food is Medicine Strategic Plan Act: Our legislation would require HHS to create a strategic plan agency-wide to improve health outcomes by including nutrition for people with diet-related illnesses.
- Community Health Center (CHC) Nutrition Act: Our bill would require CHCs to offer nutritional and dietary services to low-income patients and enhance primary care delivery for better patient outcomes.
- Medically Tailored Home-Delivered Meals
  Demonstration Act (S. 2133): With Debbie Stabenow (D-MI), Cory Booker (D-NJ), and Bill Cassidy, MD (R-LA), our bill aims to provide powerful insight into how medically tailored meals can positively impact the health of Medicare seniors with certain diet-related diseases.
- Nutrition Real-Time Benefit Tools for Providers Act: Our bill would require federal agencies to empower CHCs with critical information about their patients enrolled in federal nutrition programs to help them make meal choices tailored to their health.

3 in 4

adults are overweight or obese

#1

poor diets are the leading cause of death & disability

\$16T estimated economic impact from 2011-2020

Gus Schumacher Nutrition Incentive Program (GusNIP)









# Thank You!

Kelli Mark, Director of Healthy Communities

Carlie Houchen, Director of Health Systems

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# Development of Resilient Urban Food Systems that ensure food security in the face of climate change

### **KSRE Local Food Systems Townhall**

Eleni Pliakoni (PI), Professor, Horticulture and Natural Resources. Priscilla Brenes (Co-PI), Asst Professor, Food, Nutrition, Dietetics, and Health Logan Britton (Co-PI), Asst Professor, Agricultural Economics. Ganga Hettiarachchi (Co-PI), Professor, Agronomy. Majid Jaberi-Douraki (Co-PI), Assoc Professor, Mathematics. Tricia Jenkins Teaching Asst Professor, School of Applied and Interdisciplinary Studies. Tania Kim (Co-PI), Assoc Professor, Entomology. Hande McGinty (Co-PI), Asst Professor, Computer Science. Parthap Parameswaran (Co-PI), Assoc professor, Civil Engineering. Cary Rivard (Co-PI), Professor and Extension Specialist, Horticulture and Natural Resources. Matthew R. Sanderson (Co-PI), Randall C. Hill Distinguished Professor of Sociology, Anthropology, and Social Work & Professor of Geography and Geospatial Sciences



# Project Advisory Board

### Advisory Board Members

Name	Affiliation
Neil Rudisil	Woodland City KC
Melissa Terry	Food Policy Researcher
Nozella Brown	Brown Consulting, LLC (CEO)
Kelly Postlewait	Assistant City Manager, City of Kansas City, Missouri
Dawn Thilmany	Professor and Director, CSU
Brien Darby	Executive Director, Cultivate Kansas City
Marlin Bates	County Extension Director, KSRE - Douglas County
Kim Hines	Leadership Co-Chair, North American Food Systems Network
Brad Kaye	Project Developer with Cromwell Solar
Mark Winne	Self-employed writer and food system consultant
Doug Norsby	Sr. Environmental Planner - Mid-America Regional Council
JohnElla Holmes	CEO/President of Kansas Black Farmers Association
Qiana Mickie	Executive Director, NYC Mayor's Office of Urban Agriculture



### Graduate Student Involvement



- 12 total Graduate Research Assistants
  - 6 started Spring 2024
  - 6 starting Summer 2024
- 6 Different Majors
  - **Computer Science**
  - Horticulture
  - Regional & Community Planning
  - Agronomy
  - **Agricultural Economics**
  - **Entomology**
- All earning a certificate or emphasis in **Urban Food Systems**

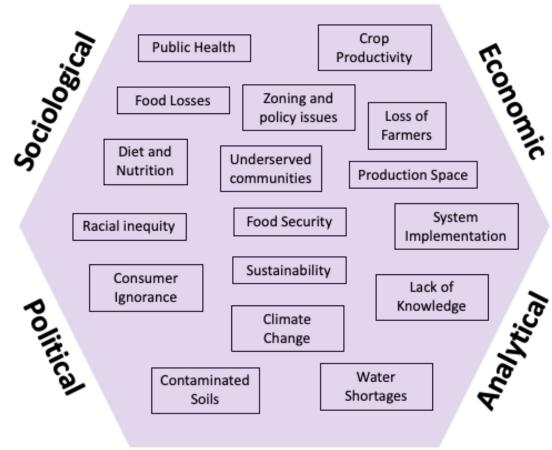


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# Transdisciplinary Challenges in UFS

- Urban food systems reseach are transdisciplinary because has very complex challenges to resolve.
- Our transdisciplinary team aims to assess the long-term sustainability of urban agricultural systems through the broad lens that is needed.
- Our long-term goal is to conduct work that will result in transformational change to address food security in Kansas, the region, and globally.

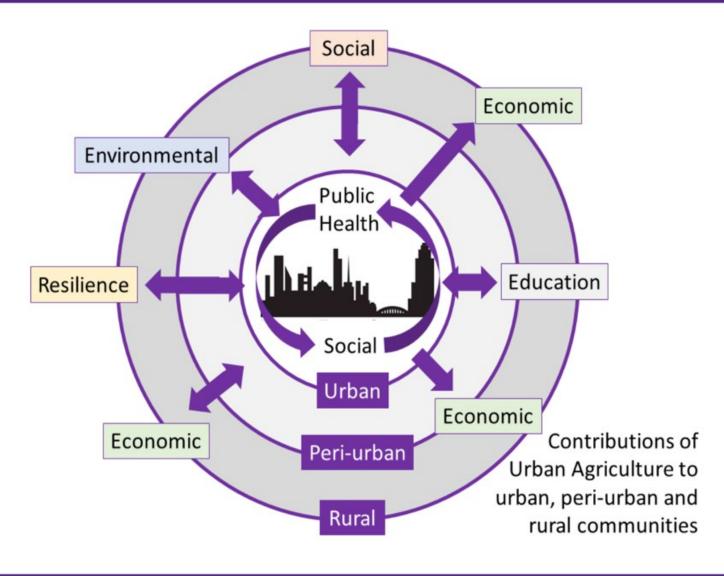
### Agricultural



**Environmental** 



### Why are UFS important?



- Urban, peri-urban, and rural communities benefit from and contribute to urban food systems.
  - Public health and wellness
  - Food equity
  - Economic development
- Agriculture within cities will not be able to feed a dense population.
- We envision a food system that transcends the urban/rural spectrum and is resilient to social and environmental change.



### **GRIP Project Objectives**

- 1. Conduct a **transdisciplinary evaluation of urban ag types** related to productivity, community health, environmental sustainability, and food system resilience
- 2. Develop knowledge graph and predictive models for connecting urban production sites to food security-related data, analysis, and application
- 3. Conduct **seed projects** for urban food systems that promote safe, productive, profitable and nutrition-sensitive climate-smart food systems
- 4. Establish a **community advisory board** that includes a diverse group of stakeholders including industry, non-for-profits, growers, and municipal/community leaders
- 5. Develop a successful SAS proposal for FY2025 utilizing a transdisciplinary team and advisory board at Kansas State University
- 6. Disseminate the activities and results of the project through existing UFSI outreach channels and with the public, including underserved communities



# Objective 1 – Evaluation of Urban Ag Types

Conduct a transdisciplinary evaluation of urban ag types related to productivity, community health, environmental sustainability, and food system resilience

### **Urban Agriculture Sites**

- Focused on "production sites"
- Sites can identify in multiple categories
- Qualifying statements to define categories
- Three sites per category
- \$1000 stipend per site (\$40-\$50 per hour)
- Incentives for community members
- Scope of work for potential sites

### **Urban Agriculture Categories**

Urban farm

Peri-urban farm

High-density or indoor farm

Training farm

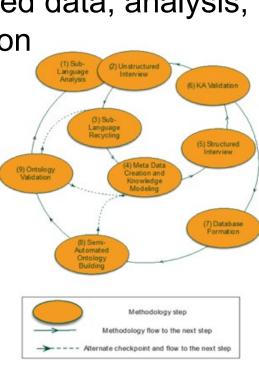
Teaching garden

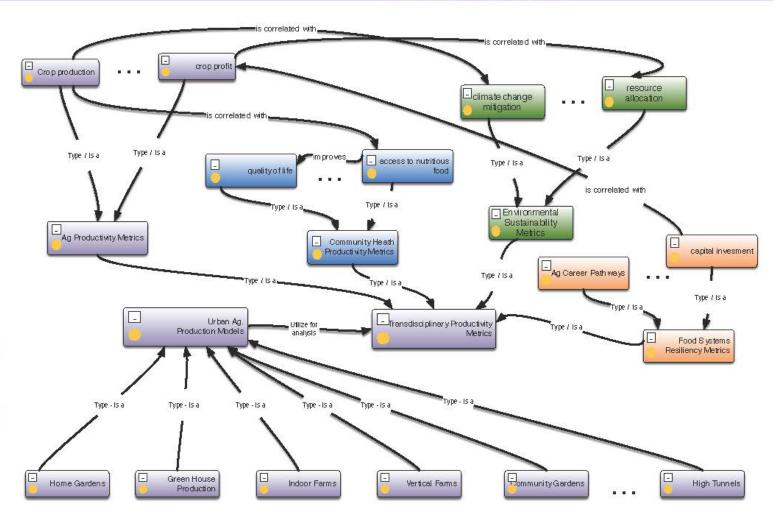
Community garden



# Objective 2 – Predictive Modeling for UFS

 Develop knowledge graph and predictive models for connecting urban production sites to food security-related data, analysis, and application





# Objective 3 – Urban Ag Innovation Projects

Title	Pls
Vegetable Production with Agrivoltaics	Rivard, Pliakoni, Jenkins, Britton, Bhullar, Hettiarachchi
Utilization of an Anaerobic Membrane Bioreactor to reuse municipal wastewater and nutrients for urban agriculture	Parameswaran, Hettiarachchi, Bhull ar, Pourkargar, Jenkins, Pliakoni
Wastewater re-use for hydroponic production systems	Yang, Bhullar, Pliakoni, Jenkins, Britton, Nwadike
Mapping pests and beneficial insect biodiversity in urban environments.	T Kim, Rivard, Kashem
Disaster-resilient food systems: Scenario planning for post- disaster food security	Kashem, McGinty, H Kim
Mapping food vulnerability and opportunities for addressing food equity in urban food systems	Kashem, Britton
Community and Agriculture Resilience Audits in two Kansas City communities	Jenkins, Stuteville



### Seed Project - Vegetable Production with Agrivoltaics

### **Project updates:**

- Replicated APV plot with 90° (vertical) fixed solar panels
  - o Tomatoes, green beans, zucchini and watermelon
- Crop yield, quality, light, and relevant economic data

### Other related activities:

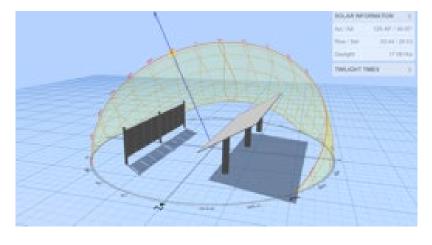
- Light characterization studies
- Uni-axial tracking systems

















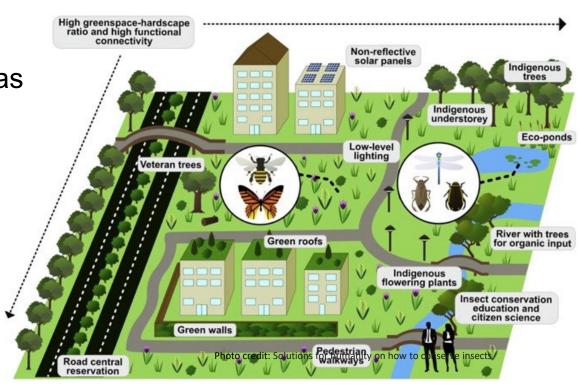
### Seed Project - Mapping Insect Biodiversity in Urban Environments

### **Project updates:**

- A Master's student started in May 2024
- Sampled insects across 16 farms within the Kansas City and Lawrence areas

### Other related activities:

- Trained two undergraduate students (1 from the McNair's fellowship program, 1 from the KSRE summer fellowship program)
- Participated in two symposia this summer





### Seed Project - Community and Agriculture Resilience Audits

### **Project updates:**

- Research activities have begun
- Dustin Kohn started data collection this summer
- Interviews and focus groups will continue and will be complete by spring 2025

### Other related activities:

 The CARAT project team engaged GRIP advisory committee members to help with the research: Brien Darby (Director of Cultivate KC), Dr. Nozella Brown (Consultant and former director of the K-State R&E of Wyandotte County), and Kelly Postlewait (KCMO Assistant City Manager)



agricultural and ecological sustainability



# Questions?



# K-State Research & Extension Updates



For additional details and to register visit: ksre-learn.com/food-producer-workshops



Manhattan, Jan. 31 Wichita, Feb. 1 Olathe, Feb. 7 Chanute, Feb. 21 Hays, Feb. 28 Garden City, Mar. 28

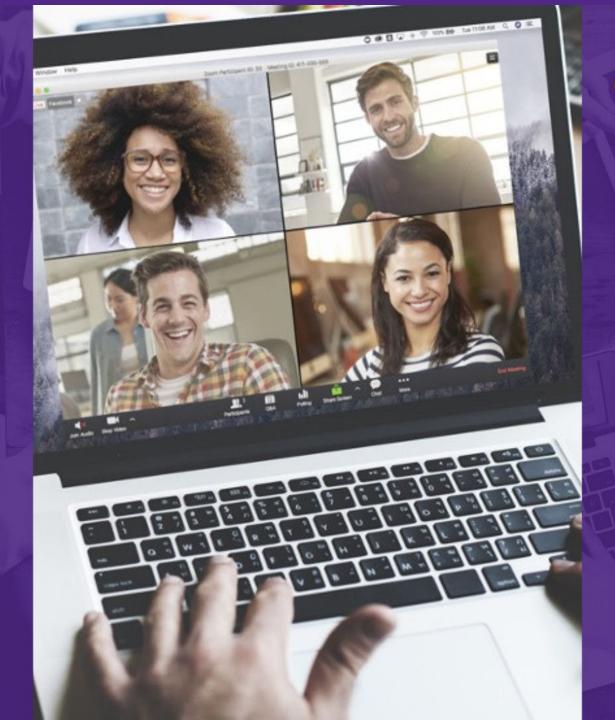








For additional details and to register visit: ksre-learn.com/food-producer-workshops



# Grant Writing Basics

### Online Workshop

Grants are a vital piece in your community's funding... and you can do it.

Join Us January 21, 23, 2025

1:30-4:30 pm

**Cost: \$60** 



**Register Today** 

https://ksre-learn.com/grant-writing-basics

K-STATE
Research and Extension

## Save the Date!

Kansas Local Food Summit July 29-30, 2025 Kansas Wesleyan University Salina, KS

Notes & Recordings of all Town Halls can be found at:



# 2025 Town Halls – 5<sup>th</sup> Wednesday

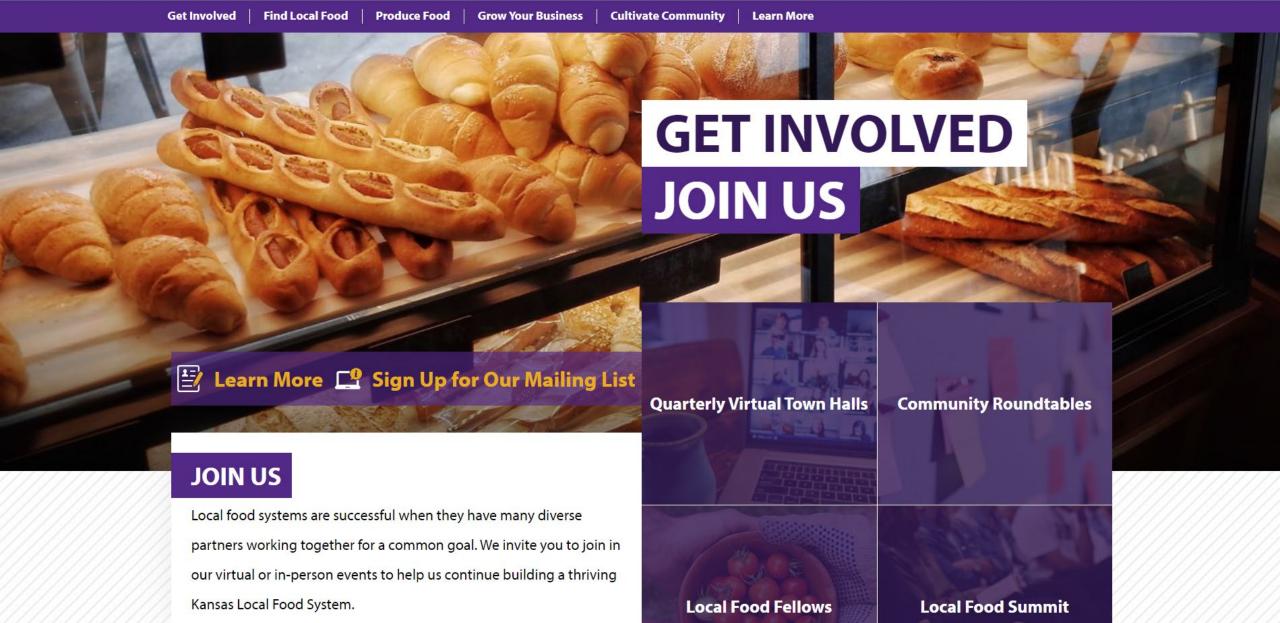
- January 29
- April 30
- July 30
- October 29



Register at: https://ksre-learn.com/local-food-town-halls

Notes & Recordings of all Town Halls can be found at:







Local Food Systems

## Heartland Regional Food Business Center Updates



# Discussion and Updates



### Closing Poll:

- Did you learn something new today?
  - Yes
  - No
- Which topics were valuable to you today?
  - Food Is Medicine
  - Resilient Urban Food Systems research
  - KSRE Program Updates
  - Discussion and Other Updates/Announcements



### Closing Poll:

- How many people will you share something with from today's town hall?
  - None
  - 1
  - 2-5
  - 6 or more
- Do you have suggestions for speakers or topics at our next Town Hall?



# Thank you!

