

*Integrated Pest Management and Youth
Engagement in Indiana Urban Food Systems*

Nathan Shoaf

Purdue Extension Urban Agriculture Coordinator

Felege Hiywot Center May 3, 2022

Outline

- Background and Extension role
- Urban agriculture (UA) in IN & Purdue Extension
- Dynamics of UA engagement
- UA needs assessment
- Recruitment and approach
- Preliminary results
- Sustainable urban food systems



Marissa Renz, Plant Happiness, LLC, Fort Wayne, IN
Photo credit: Charles Jischke

Background and Extension Role

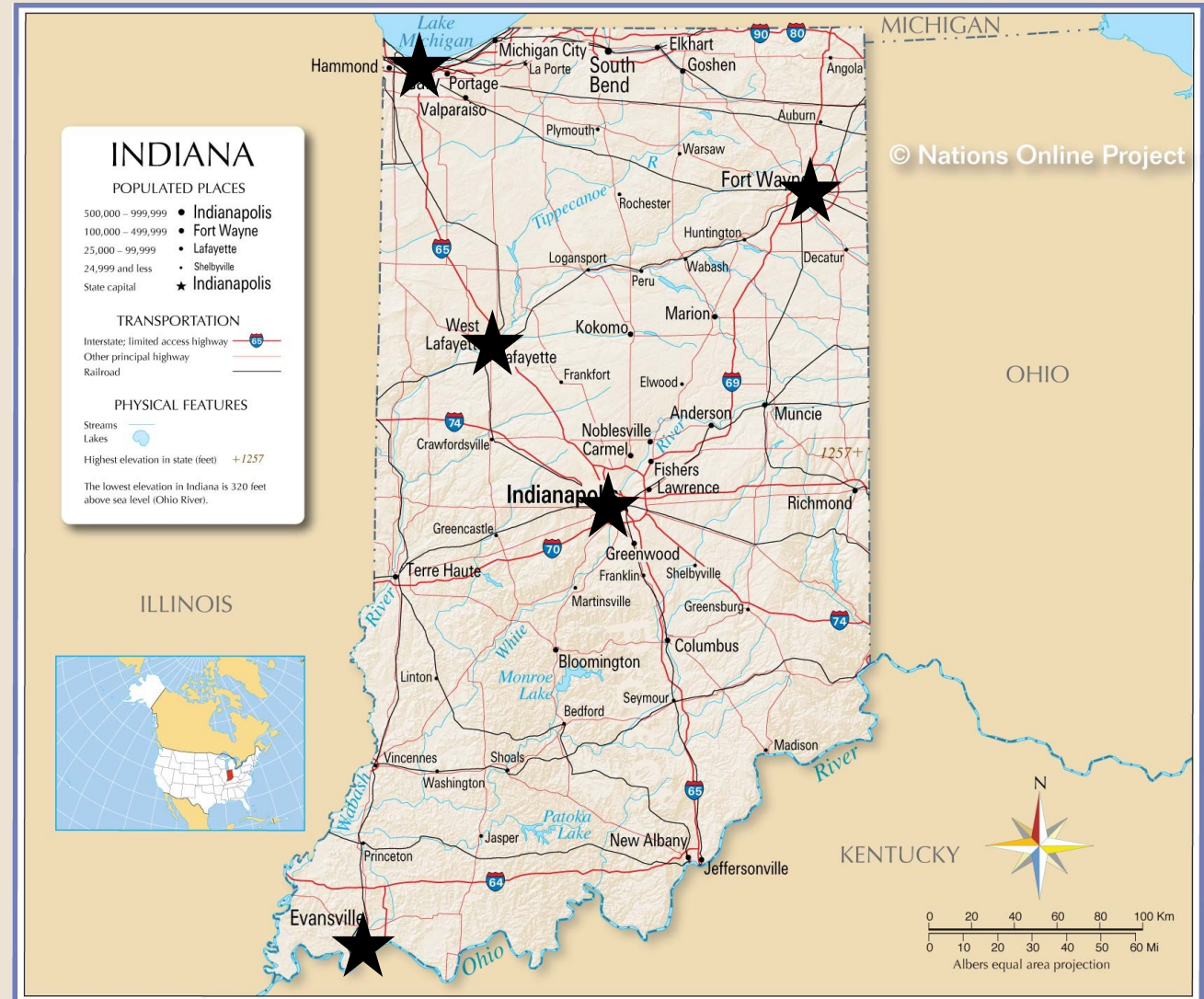
- Soil scientist and social scientist
- Environmental consultant
- Purdue Extension Urban Agriculture Coordinator
- Regional and national coordination with NUEL, EPA, CDC, and USDA
- Conduct statewide needs assessment to be understand programs and resources that UA clientele want
- Develop and support new (or revise existing) programs and resources to better meet their needs



Danielle Guerin, Soul Food Project, Inc., Indianapolis, IN
Photo credit: Charles Jischke

UA Extension in Indiana

- Gary
 - Underserved population
- Fort Wayne
 - Johnnie Mae Farm
- West Lafayette
 - Faculty and Specialists
- Indianapolis
 - Largest metropolitan area
- Evansville
 - Superfunds sites and border state influence



UA in Purdue Extension

- Indianapolis 2016
- UA Certificate Program
- Statewide efforts
- Coordinator 2019
- Gary Urban Farmer Initiative 2019-2022
 - GUFU UA Cert Program
- Virtual Certificate Program 2020
- Urban Farmer Signature Program 2021



HOW DO YOU
BUILD
COMMUNITY
WITH URBAN AGRICULTURE?



UA in Purdue Extension-GUFI

- Orientation to Urban Agriculture
- Site Assessment & Environmental Safety
- Urban Soil Health Management
- Sowing, Transplanting, & Propagation
- **IPM**
- Season Extension
- Harvesting and Food Safety
- Farm Finances
- Marketing & Sales
- Farm Equipment & Maintenance



Gary, IN Career Center
Photo credit: Janet Reed

Urban Farmers



Northwest Indiana Veteran's Village, Gary, IN
Photo credit: Purdue Extension



The Elephant Gardens, Indianapolis, IN
Theelephantgardensindy.com



Freight Farms, Indianapolis, IN
Photo: Nathan Shoaf

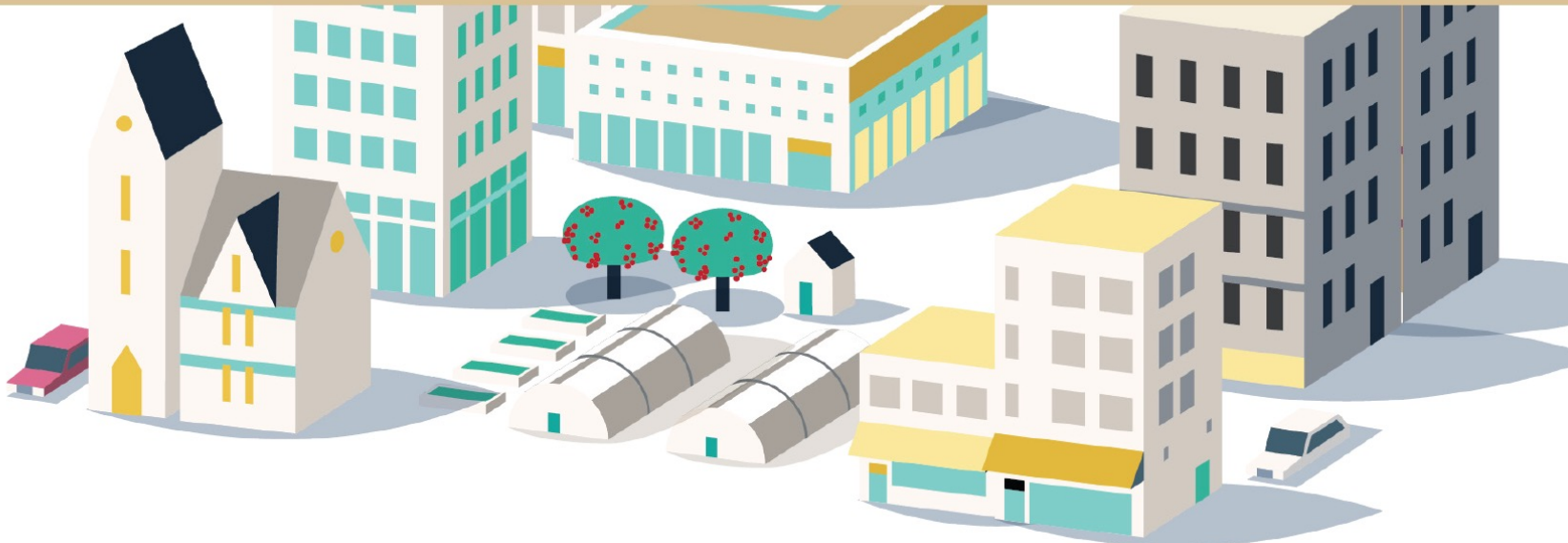
Dynamics of UA Youth Engagement

- Historically underserved
- Communication approaches
- Building trust
- Cultural competency
- Inclusive program content
- Crop productivity
- IPM
- Soils & contamination
- Food safety
- Marketing



Gary, IN Garden & Farming Network Conference
Photo: Carmen McKee

URBAN AGRICULTURE



UA Needs Assessment Recruitment Efforts

- Grant projects
- Networking and training events
- Personal email and phone
- Newsletters
- Farmer interest



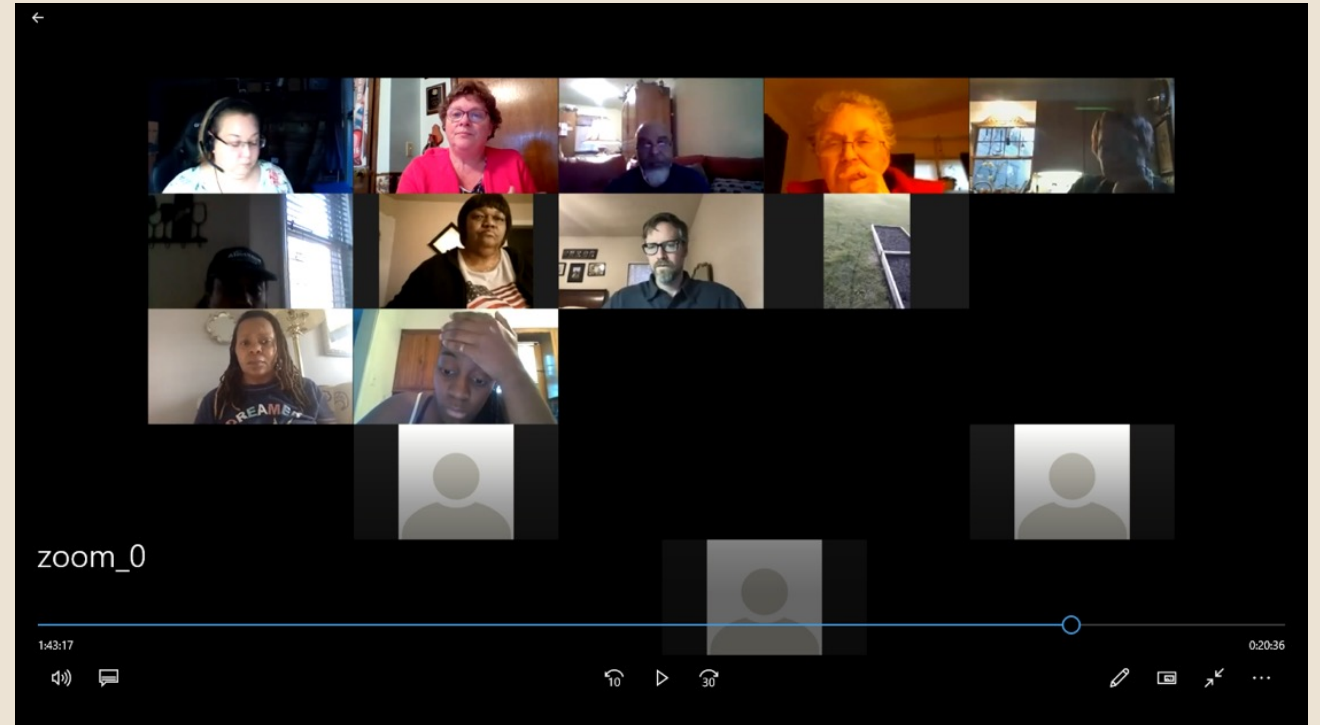
Gary Urban Farmer Initiative, Gary, IN
Photo credit: Tamara Benjamin



Peace Garden ad Farm, Gary, IN
Photo credit: Lynda Bodie

UA Needs Assessment Process

- Mixed methods approach data collection
- Virtual roundtables
- One-on-one meetings
- Semi-structured interviews
- Online survey instrument



Gary, IN Virtual Round Table
Photo credit: Nathan Shoaf

UA Needs Assessment Preliminary Results

61.3% FEMALE

The majority of respondents identified as female (61.3%), while 36.6% as male, and 2.2% preferred not to answer.

9.8% BLACK

While most respondents identified as white (83.7%), nearly 10 percent identified as Black or African American. This percentage is higher than other national agricultural surveys and mirrors the share of population in Indiana (9.6%) who identified with this racial category in the 2020 US Census³.

34% RESIDE IN MARION COUNTY

Marion County (Indianapolis) accounted for the highest concentration of urban agriculturalists, however, respondents reside in 22 counties across the state.

UA Needs Assessment Preliminary Results

Top Challenges Impacting Production

1. Insect pest identification
2. Plant disease identification and management
3. Marketing/business development
4. Soil health (nutrients, pH, amendments)
5. Nutrient management for plant health
6. Weed identification or management
7. Irrigation

Top Production Practices Interested in Learning About

1. Plant disease identification and management
2. Weed identification or management
3. Soil health (nutrients, pH, amendments)
4. Growing techniques (raised beds, low tunnels, high tunnels)
5. Insect pest identification or management
6. Nutrient management for plant health

Next Steps

- Dialogue-based communication
- Co-production w farmers
- Create new programs and resources
- Revise existing programs and resources
- Support female farmer networks
- Continue building relationships and trust with BIPOC communities
- Continue expanding statewide support



Danielle Guerin, Soul Food Project, Inc., Indianapolis, IN
Photo credit: Charles Jischke

Sustainable IN Urban Food Systems

- Urban farms & gardens
- **Youth programs**
- Entrepreneurship
- Workforce training
- Partnerships
- Networking
- Enhancing community value
- Needs assessments
- Farm tours and storytelling



Felege Hiywot Center

Aster Bekele, Felege Hiywot Center
Photo credit: Purdue Extension

Questions/Comments?



Extension

Nathan Shoaf

nlshoaf@purdue.edu

765-496-7955