

# Small Scale Farmers of African-American Descent and Contamination Events

Louie Rivers Jr. & Marion Simon  
Kentucky State University  
Louie Rivers III  
Michigan State University



# Food safety: Fruits and vegetables

- Microbial food safety hazards of fresh and fresh-cut fruits and vegetables
  - Food borne pathogens
    - *E. Coli* and Spinach
    - 1990-2003, 554 food borne illness via vegetables
  - Focus on BMPs for high risk audience
    - Agricultural economy
    - Mid- and small-scale farmers
    - Minority farmers
      - Amish farmers
      - **Black farmers**



# Food safety: Fruits and vegetables

- Social Science

- Mental Models
  - Farmers
  - Consumers
- Surveys
- Risk Communication
  - Farmers
  - Consumers

- Natural Science

- Management surveys
- Microbiology tests
  - Water sources
  - Soil
- Source tracking of pathogens

# Black Farmers & Risk



- 1920: 1 in 7 farmers were Black
- 2003: 1 in 100 farmers were Black
- What happened?
  - Population shift: rural to urban
  - Emergence of corporate farms

# Black Farmers & Risk

- History of failing to help Black farmers obtain government funds
- 1999: \$3 billion class action settlement with Black farmers
- 2004: USDA fought the settlement
  - 90% of plaintiffs denied payment
- Alienation of Black Farmers from primary source of information and funding



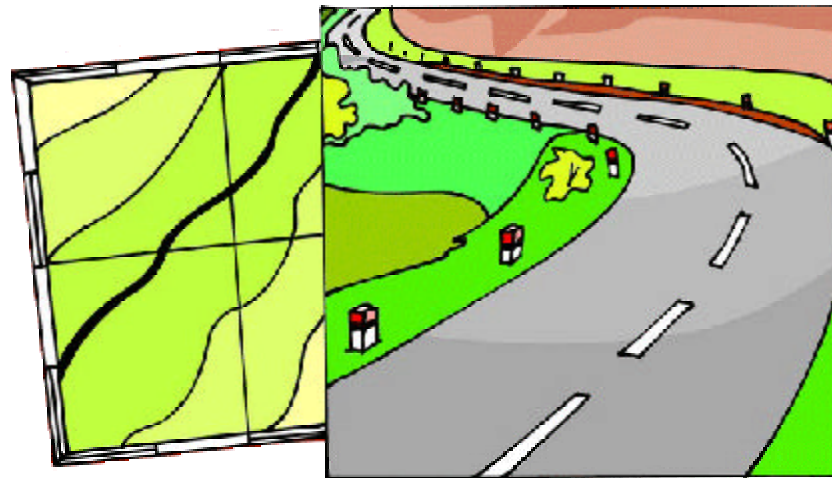
# Food safety: Fruits and vegetables

- Social Science
  - **Mental Models**
    - **Black Farmers**
    - Consumers
  - Surveys
  - Risk Communication
    - Farmers
    - Consumers

- Natural Science
  - Management surveys
  - Microbiology tests
    - Water sources
    - Soil
  - Source tracking of pathogens

# Mental Models Research

- Mental Road Maps
- How humans know, perceive, make decisions, and construct behavior in a variety of environments
- Quantitative and qualitative components
- Intent, format and content of risk communication



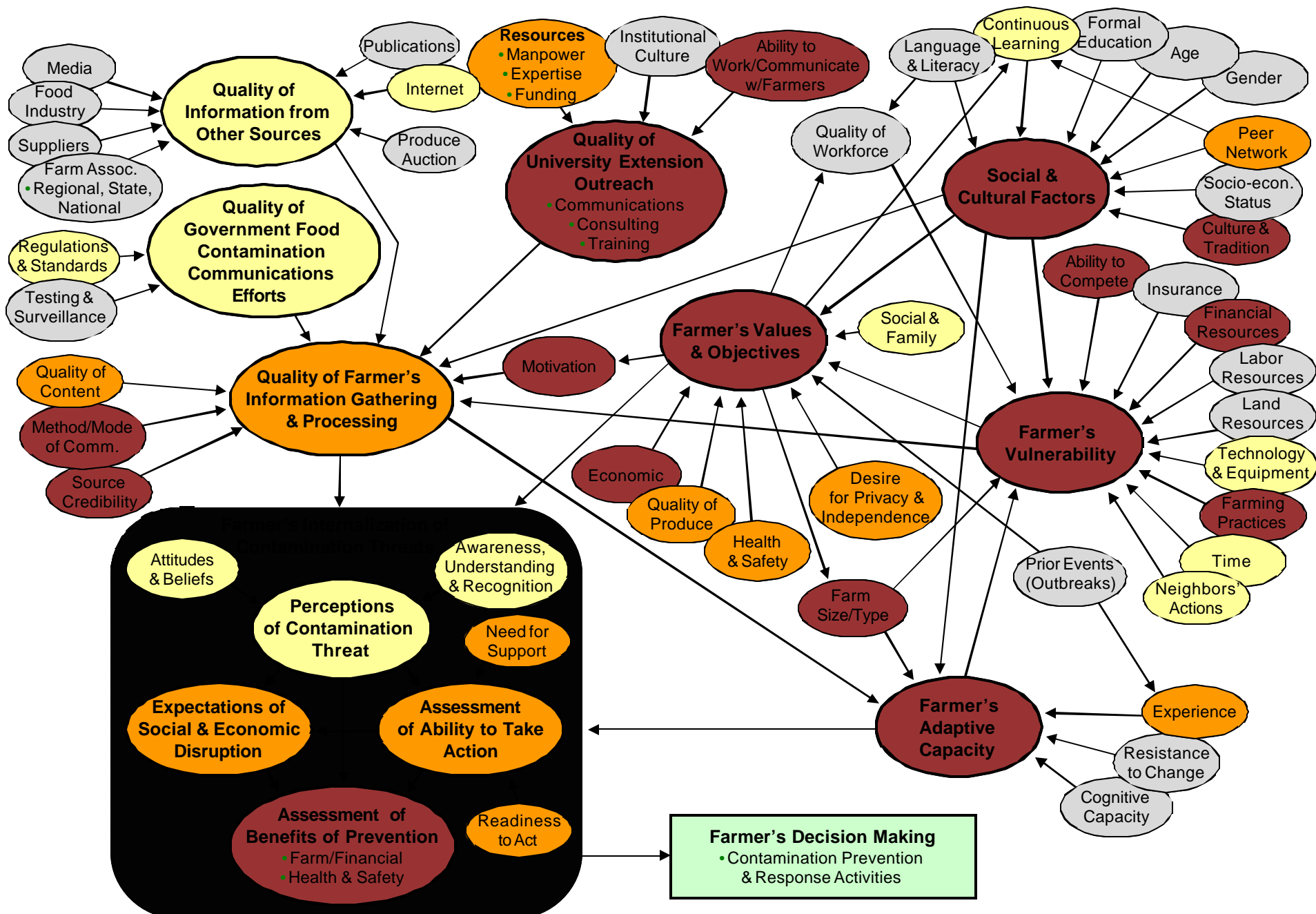
# Current Study

- Mental Models of Black Farmers:
  - Microbial Contamination
  - Daily Operation of the Farm
  - Economic Aspects of Farming
- 17 Black Farmers in Kentucky were interviewed
- All of the interviews were confidential.
- Interviews were recorded with permission.

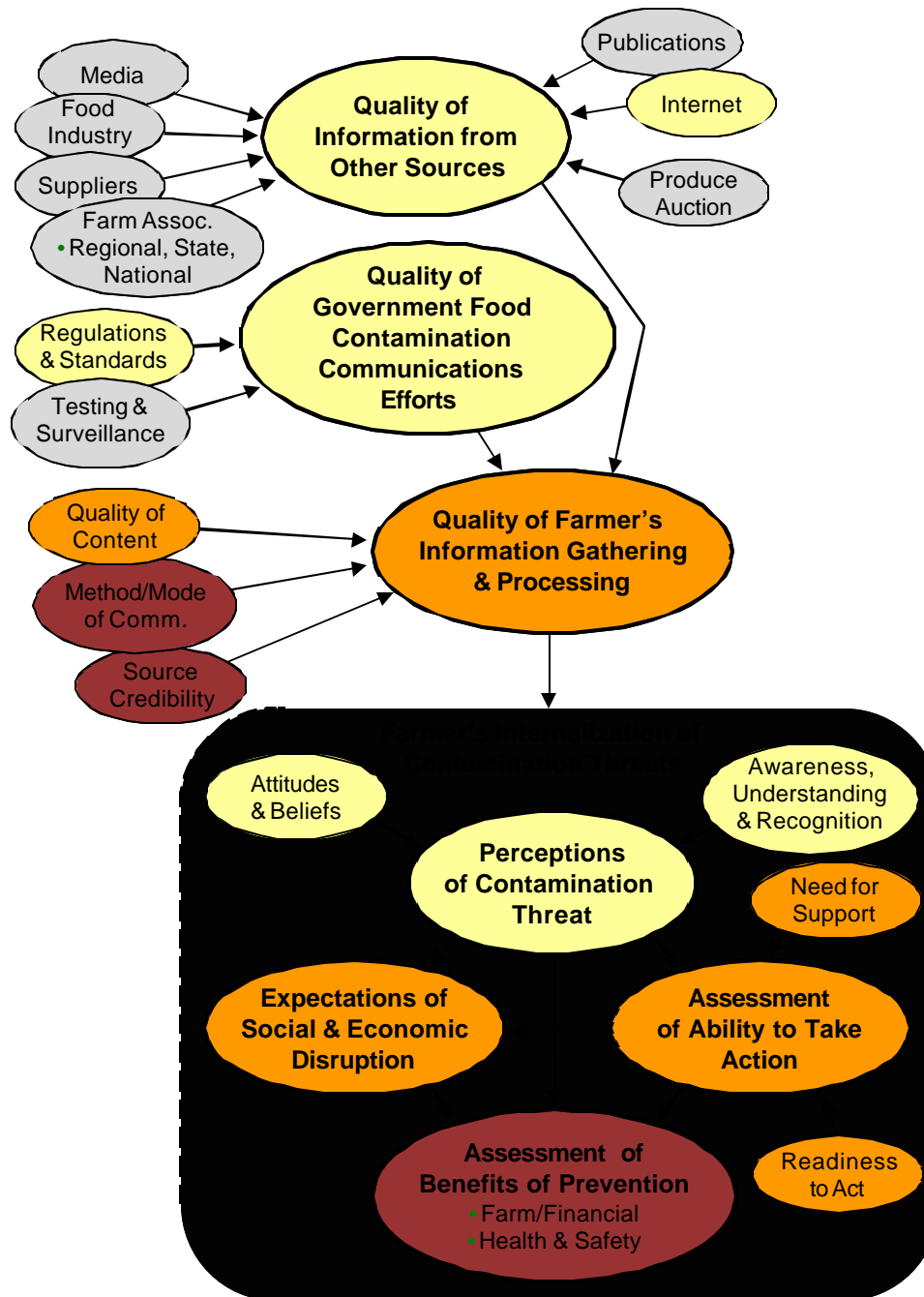


# Current Study

- Interviewees were offered an agenda of topics to discuss in a way that allowed for free expression. They were encouraged to raise additional topics spontaneously and to elaborate on their perspectives on these topics.
- Data analyzed and coded to develop a mental model
  - Used Nvivo
  - Color-Coded to compare to other groups



- Primary influences
- Secondary influences
- Other influences



# Observations

- Black Farmers have less reliance on:
  - Government
  - Suppliers
  - Farmer Association
- Disenfranchisement from primary sources of information
- Black Farmers rely heavily on:
  - Other Farmers
  - Continuous learning programs

# Observations

- Need to integrate Black Farmers into government sources of assistance and information
- Need to utilize alternative communication venues to reach Black Farmers
  - Internet

# Thank You

- Questions?
- Contact Information:
  - Louie Rivers Jr.
    - [louie.rivers@kysu.edu](mailto:louie.rivers@kysu.edu)
  - Marion Simon
    - [marion.simon@kysu.edu](mailto:marion.simon@kysu.edu)
  - Louie Rivers III
    - [riversl@msu.edu](mailto:riversl@msu.edu)

