

# Conservation and supply chains: what are the connections?

Michelle Miller, Center for Integrated Agricultural Systems  
University of Wisconsin

Tom Lyon Family Leadership Symposium, Cooperative Network  
Annual Meeting, Radisson Hotel, La Crosse, WI. Nov. 10, 2022





## NATION'S FIRST WATERSHED PROJECT

This point is near the center of the 90,000 acre Coon Creek Watershed, the nation's first large-scale demonstration of soil and water conservation. The area was selected for this purpose by the U.S. Soil Conservation Service (then Soil Erosion Service) in October 1933. Technicians of the S.C.S. and the University of Wisconsin pooled their knowledge with the experiences of local farm leaders to establish a pattern of land use now prevalent throughout the midwest. Planned practices in effect include improvement of woodlands, wildlife habitat and pastures, better rotations and fertilization, strip cropping, terracing, and gully and stream bank erosion control. The outcome is a tribute to the wisdom, courage and foresight of the farm families who adopted the modern methods of conservation farming illustrated here.

Erected 1959

Nearly 100  
years of  
watershed  
conservation

**“It's difficult to get a man to understand something when his salary depends on his NOT understanding it.”**

**----Upton Sinclair**

"Our goal is not just an environment of clean air and water and scenic beauty, The objective is an environment of decency, quality, and mutual respect for all other human beings and all other living creatures."

----Gaylord Nelson

“Conservation is ethically sound. It is rooted in our love of the land, our respect for the rights of others, and our devotion to the rule of law.”

----Lyndon Baines Johnson

"Conservation means harmony between men and land. When land does well for its owner, and the owner does well by his land- when both end up better by reason of their partnership- we have conservation..."

—- Aldo Leopold

# The Future of Farming and Rural Life (2006)

Rod & Wilda Nilsestuen convened this public collaboration with Tom Lyon and Stan Gruszynski as co-chairs. They took a comprehensive approach to rural well-being.

infrastructure

health care

education

food systems

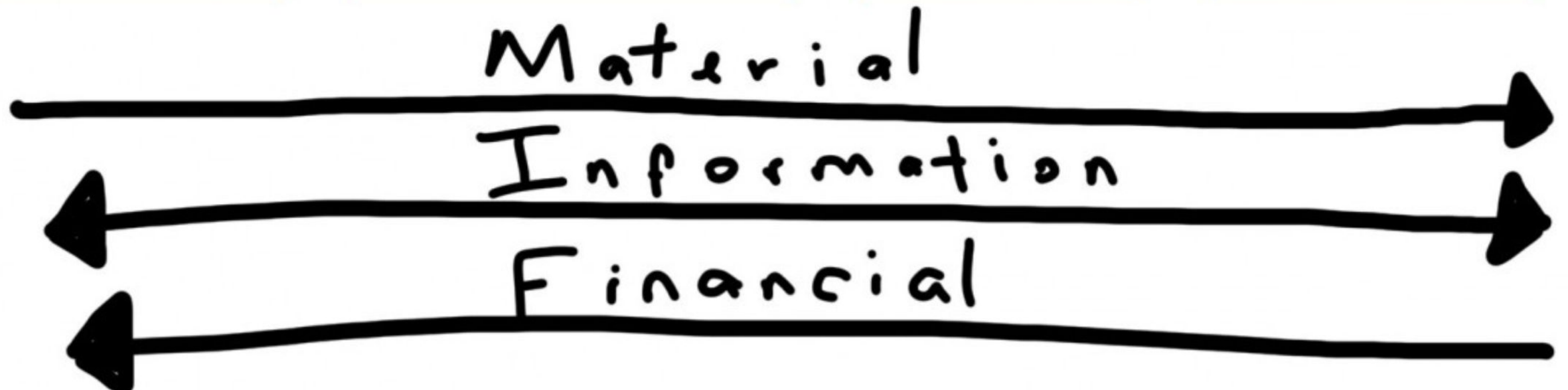
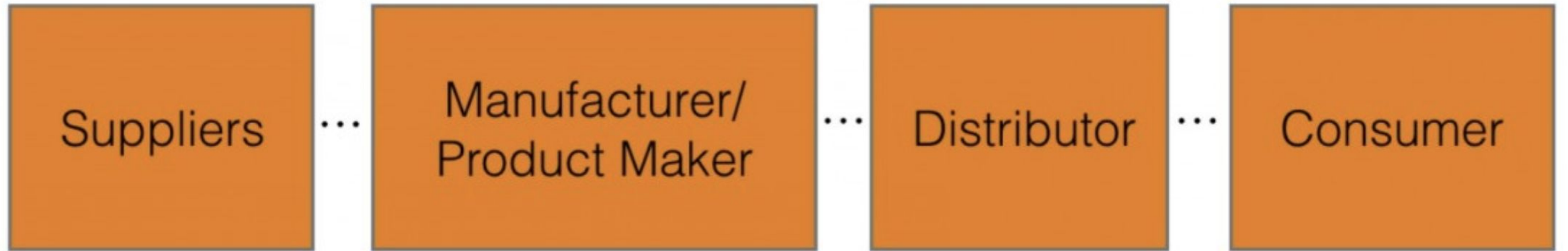
agriculture of the middle

labor

...significant challenges existed prior to COVID-19 in the form of inadequate housing, healthcare, social services, broadband access, food availability and infrastructure.

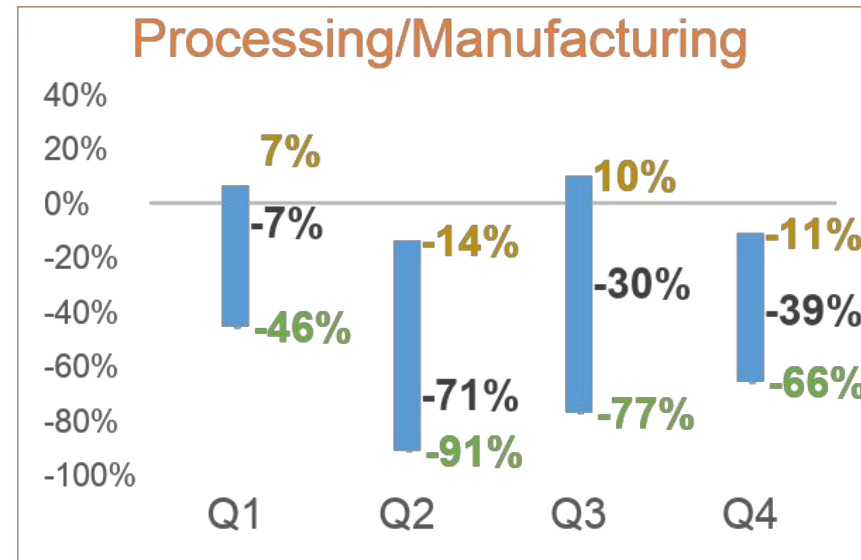
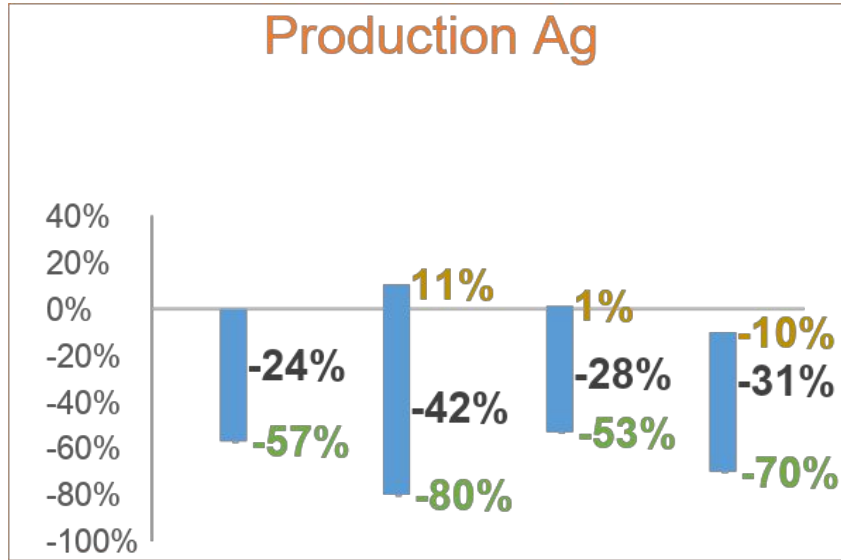
—Dan Smith, April 2021

# The 3 flows of supply chain

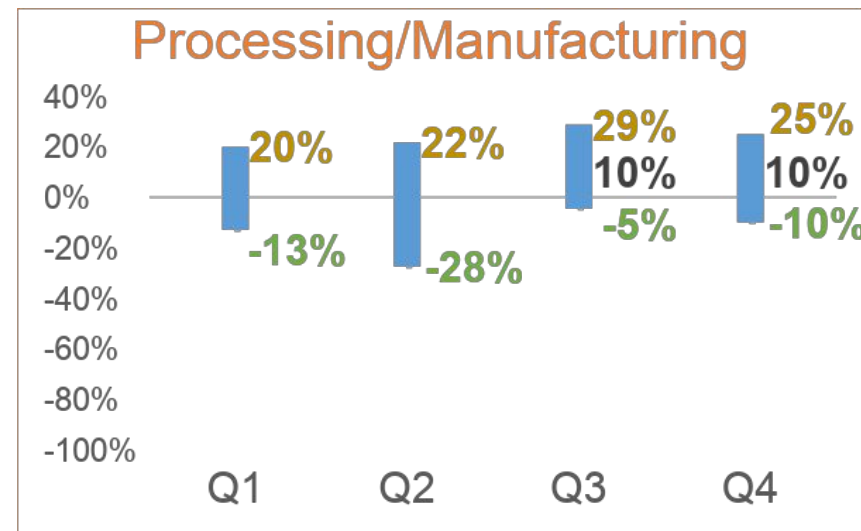
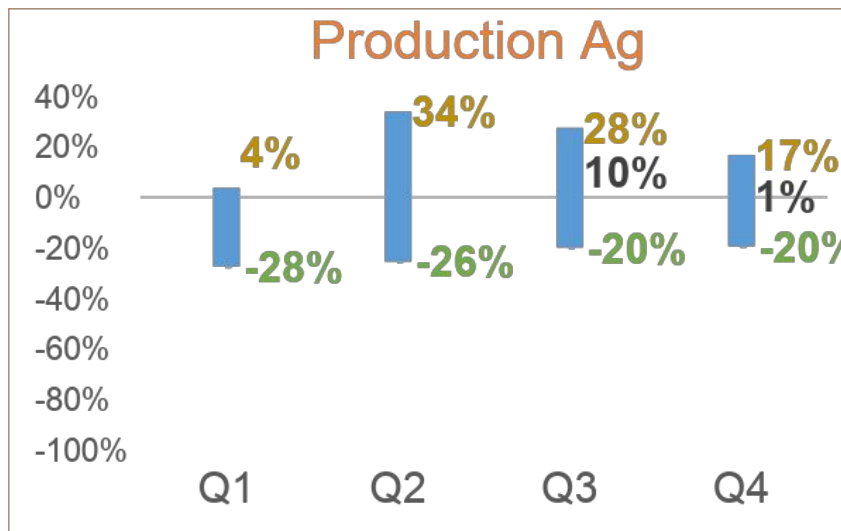


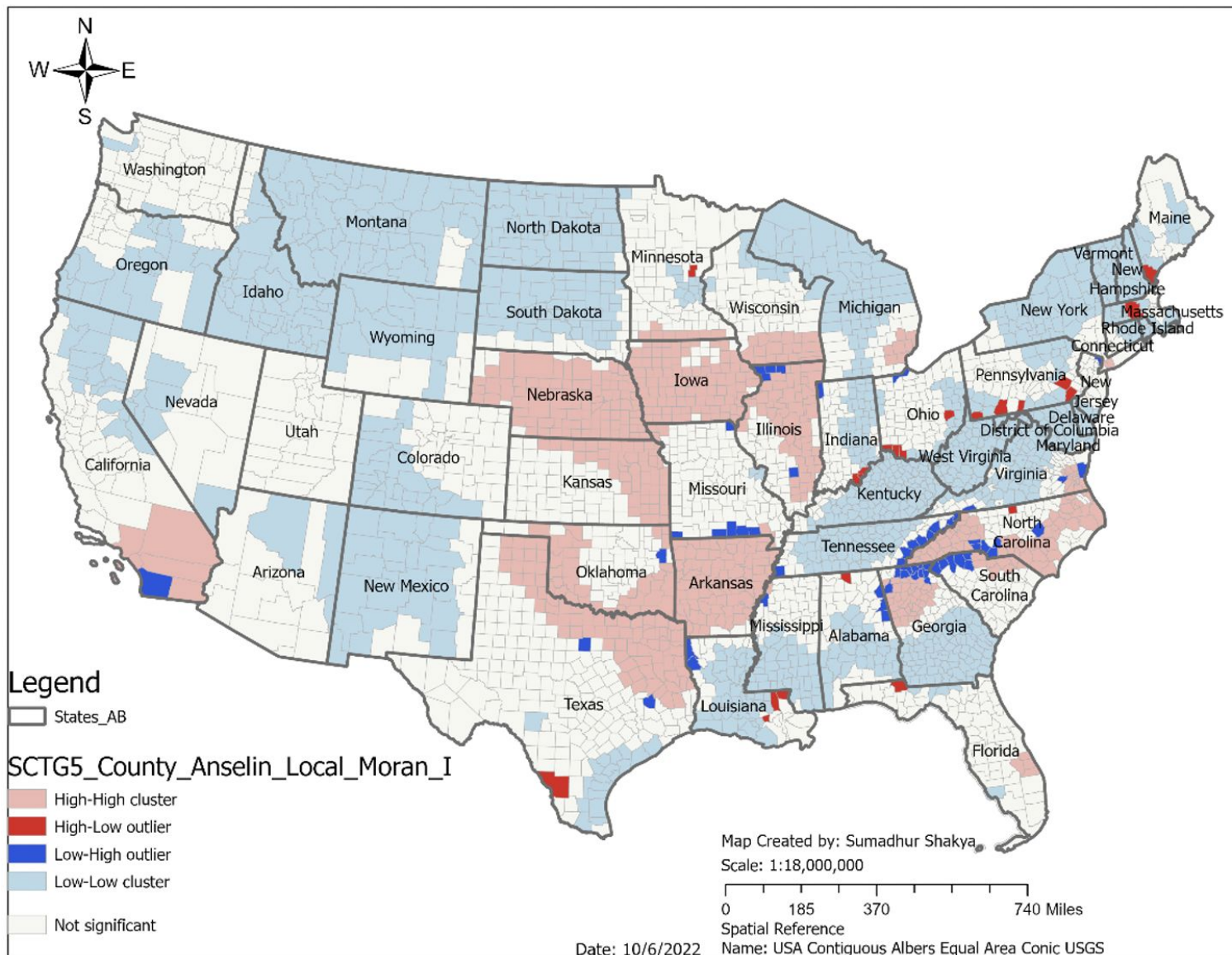
# Compared to an average year, please estimate how your food-related sales changed in 2020?

CA  
(N = 195)



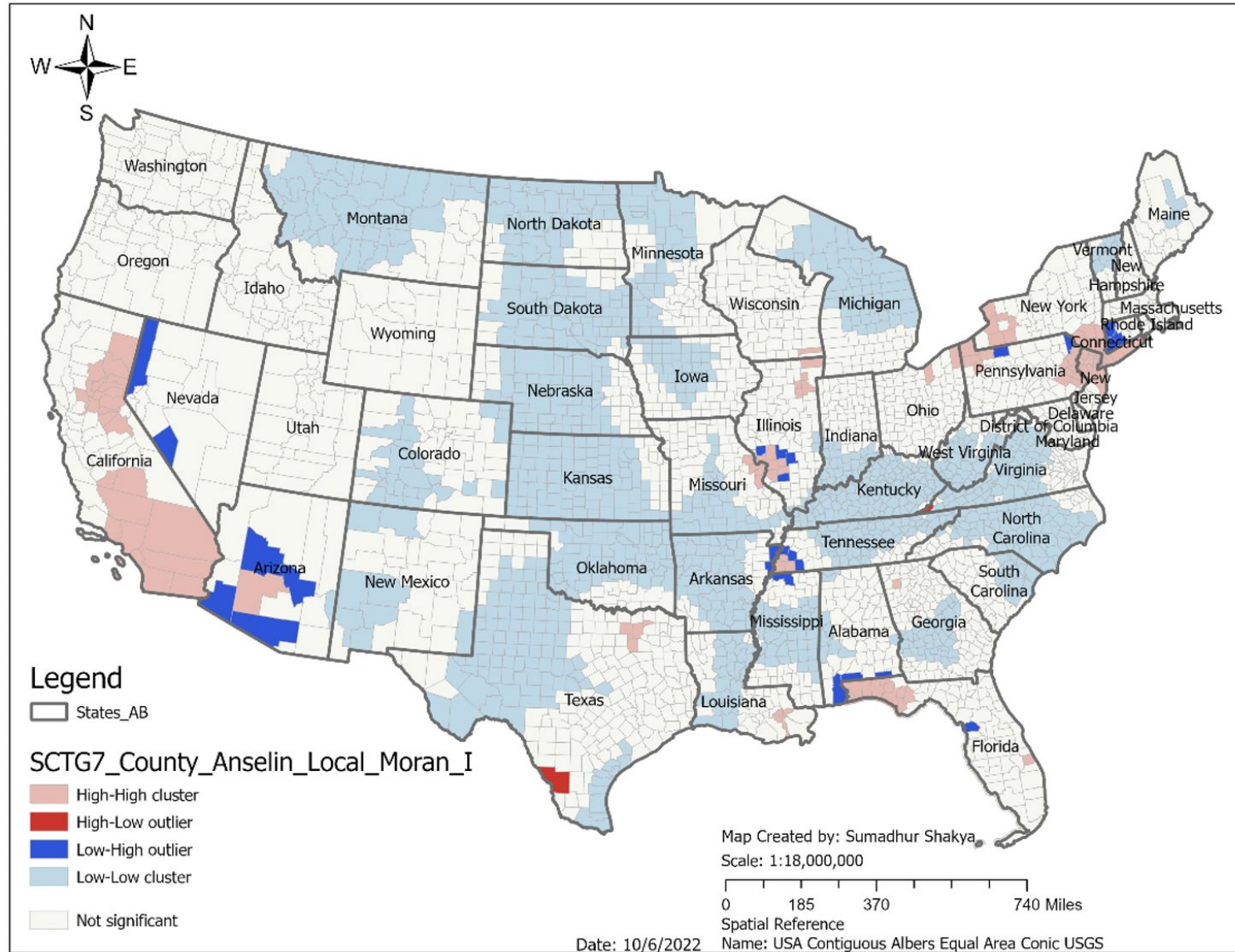
MN-WI  
(N = 167)





USDA-AMS-TSD funded research





USDA-AMS-TSD funded research

# MARKET POWER AND DIGITAL BUSINESS ECOSYSTEMS:

ASSESSING THE IMPACT OF  
ECONOMIC AND BUSINESS  
COMPLEXITY ON COMPETITION  
ANALYSIS AND REMEDIES

DIANA L. MOSS  
GREGORY T. GUNDLACH  
RILEY T. KROTZ

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<https://www.foodsystemsjournal.org>

## From online cart to plate: What Amazon's retail domination means for the future of food

Carly Livingstone<sup>a\*</sup> and Irena Knezevic<sup>b</sup>  
Carleton University

Livingstone, C., & Knezevic, I. (2020). From online cart to plate: What Amazon's retail domination means for the future of food. *Journal of Agriculture, Food Systems, and Community Development*, 9(4), 311–329.

<https://doi.org/10.5304/jafscd.2020.094.017>



**Buyer Power and Economic Discrimination in the Grocery Aisle:  
Kitchen Table Issues for American Consumers**

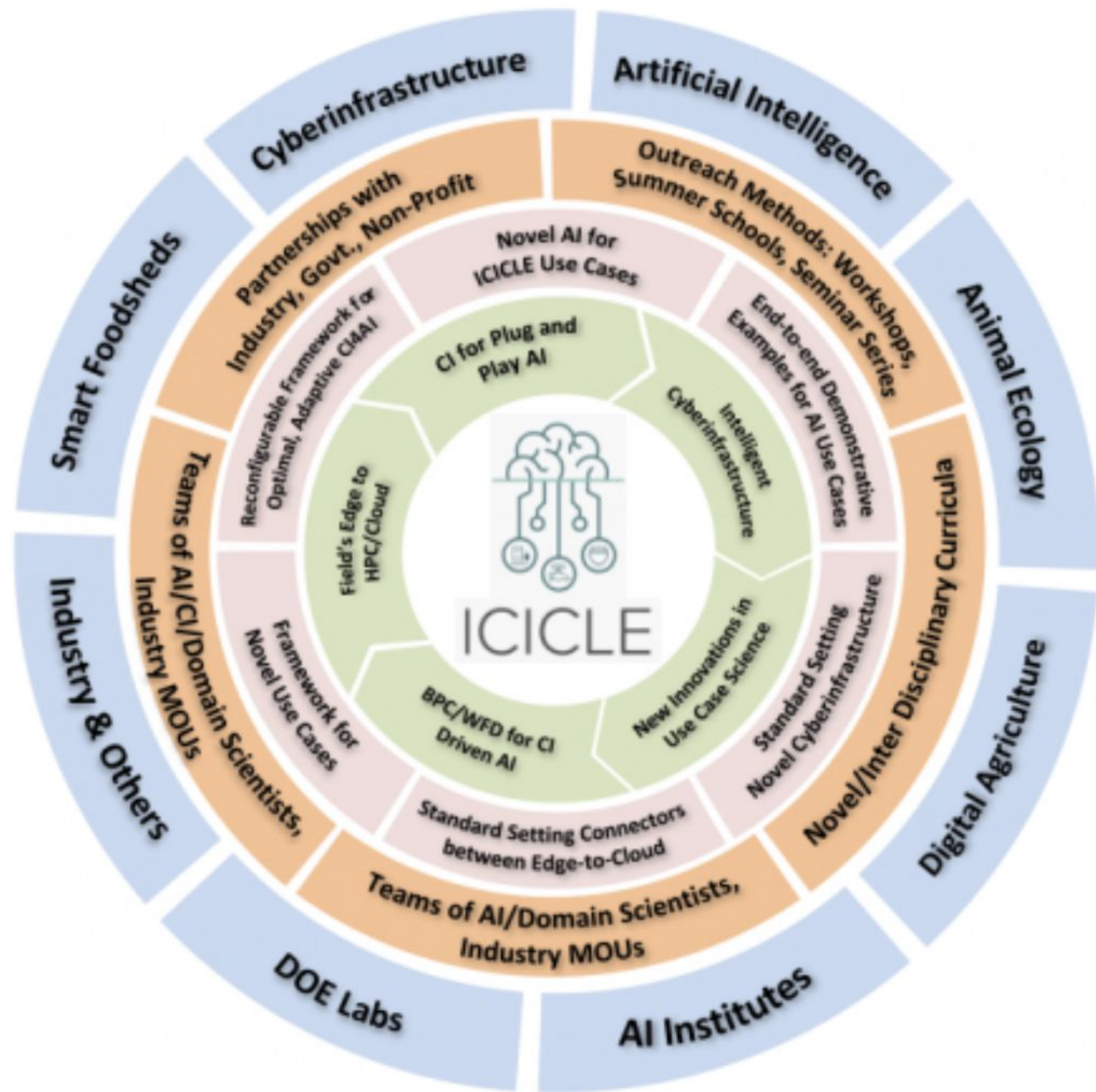
**The National Grocers Association**

National Grocers Association report (March 2021).

”These dominant chains wield tremendous economic power to the detriment of independent retailers and producers and the American consumer. For decades, they have used their “buyer power” to dictate terms and conditions to suppliers, which in turn forces suppliers to discriminate against independent grocers and drives consolidation throughout the supply chain. Buyer power also **harms small and mid-sized producers, such as independent farmers and ranchers, who are paid prices far below competitive levels.**”

# Democratizing data and models

## Intelligent Cyberinfrastructure with Computational Learning in the Environment (ICICLE)





+

zoom to county

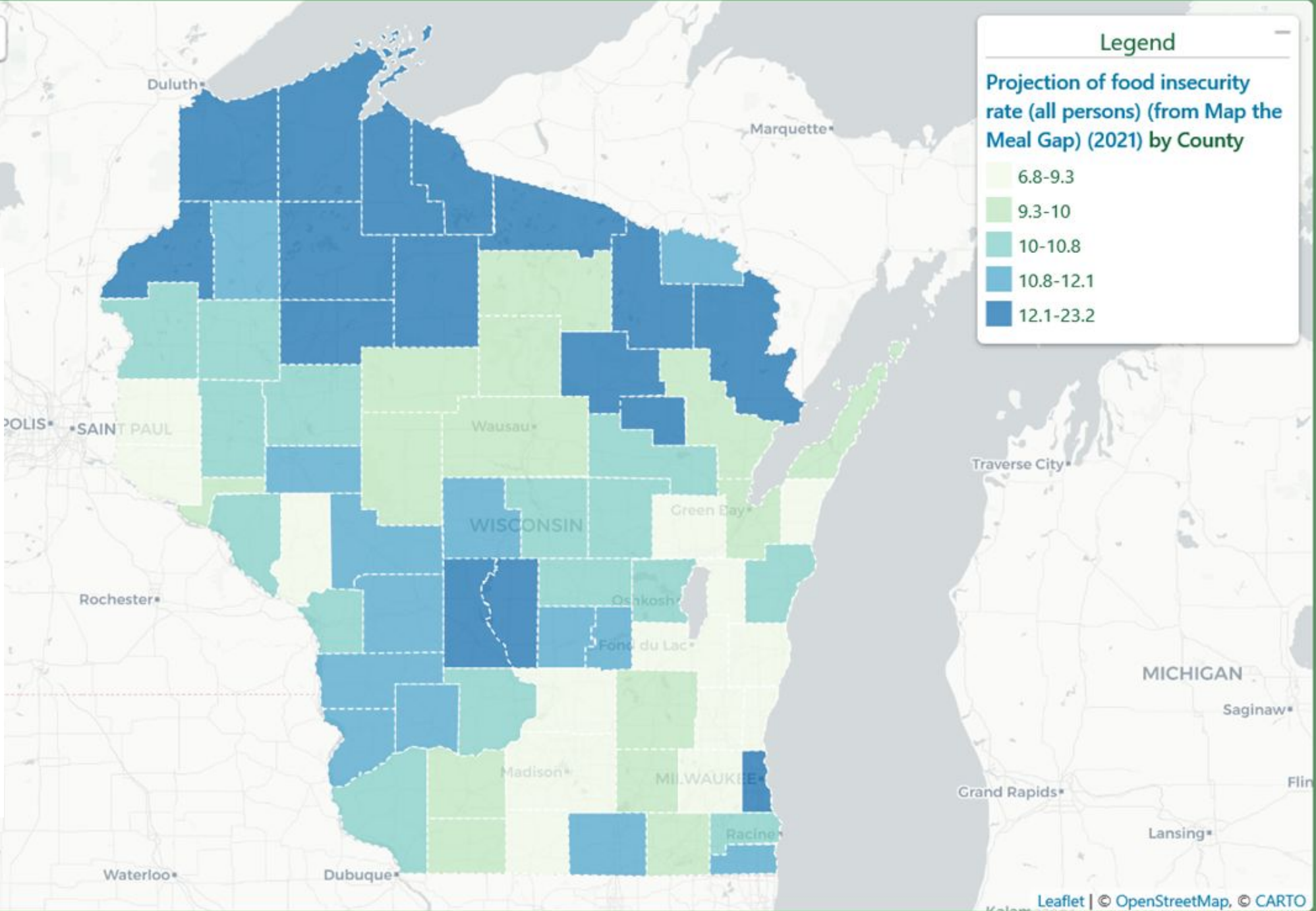
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### Legend

Projection of food insecurity rate (all persons) (from Map the Meal Gap) (2021) by County

- 6.8-9.3
- 9.3-10
- 10-10.8
- 10.8-12.1
- 12.1-23.2

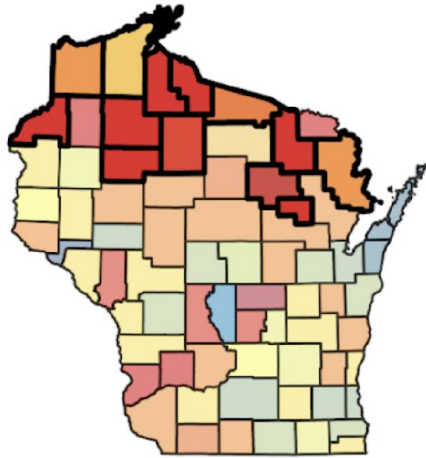
- Wisconsin study area
- Ashland
  - Bayfield
  - Burnett
  - Douglas
  - Forest
  - Iron
  - Langlade
  - Marinette
  - Menominee
  - Price
  - Rusk
  - Sawyer
  - Vilas



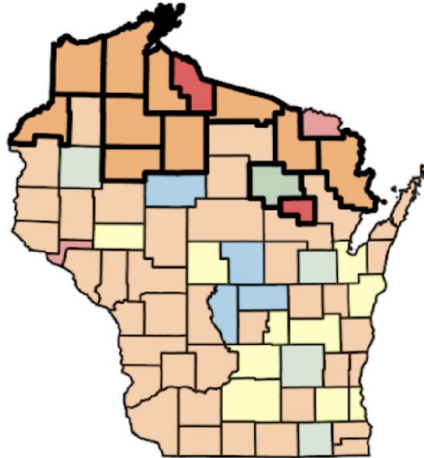
**Tonnage per  
1,000 residents**



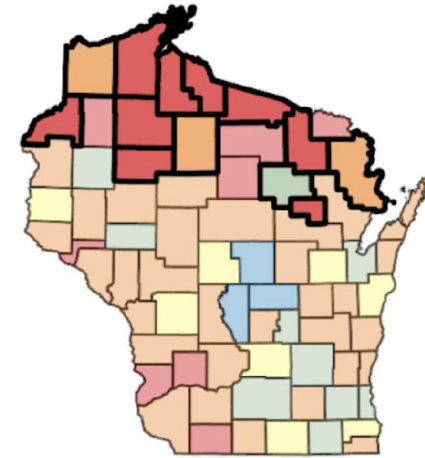
**Deciduous Fruits**



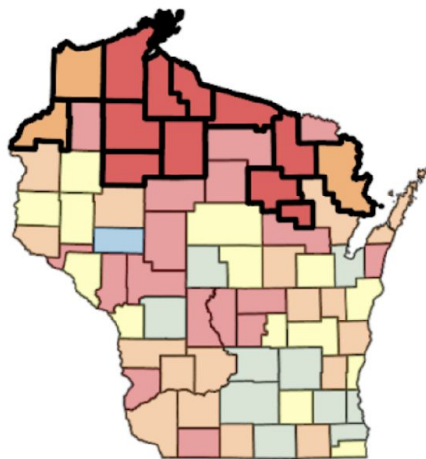
**Misc. Fresh Vegetables**



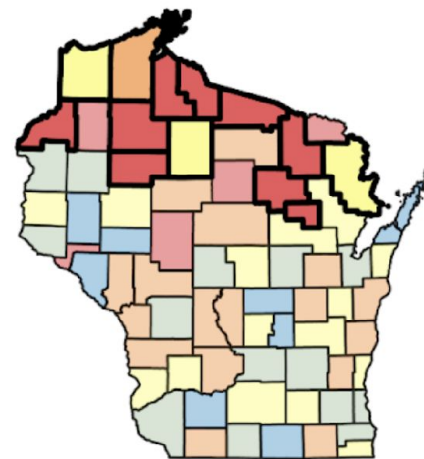
**Leafy Fresh Vegetables**



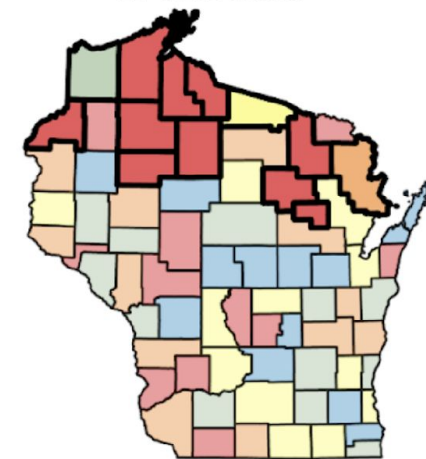
**Citrus Fruits**



**Tropical Fruits**



**Misc. Fresh Fruits  
or Tree Nuts**



## Grocery interview findings

- Summer residents triple the population.
- Stores commonly rely on one distributor – non-competitive wholesale environment.
- Stores are diversifying services: hardware, banking, pharmacy, meat processing.
- Dollar chains syphoning off business.
- Competitive advantage to big box from fresh foods.
- Buying cheap retail for resale.



Cenex Stores

County Market

ACE Hardware

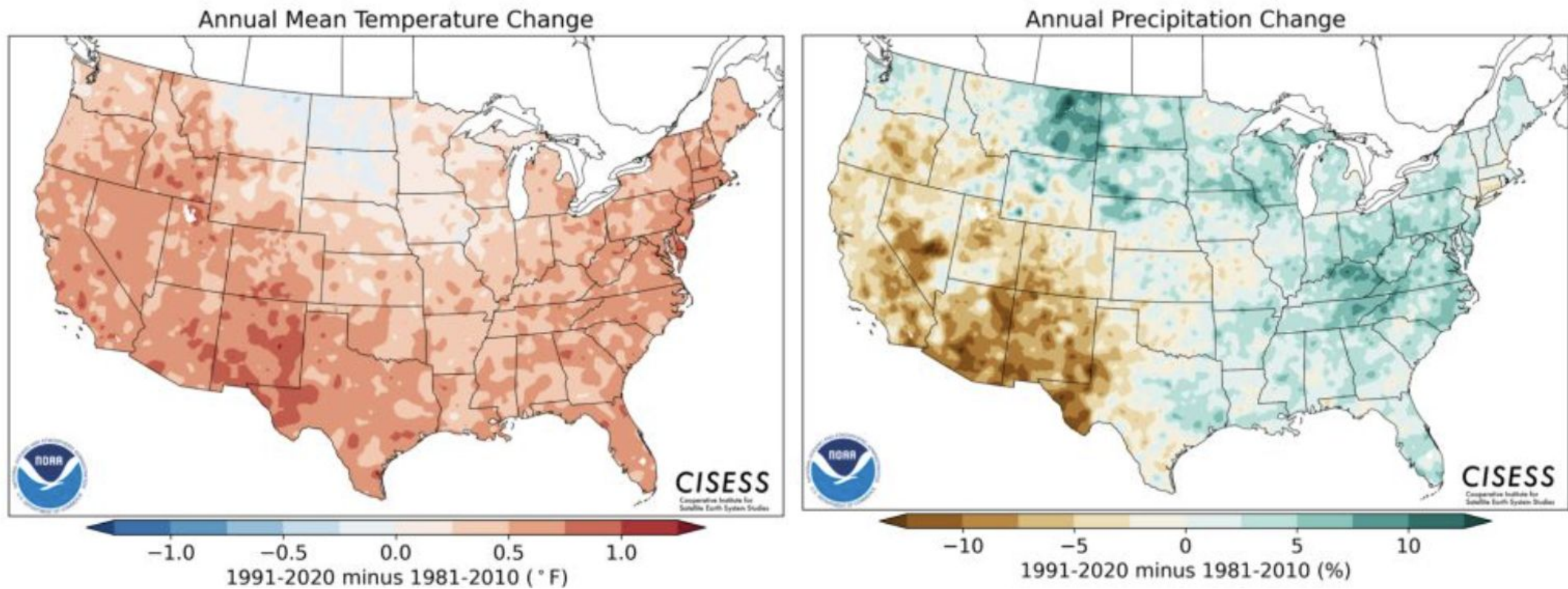


# Cooperative Grocery Stores

# Greenbelt Foundation & Ontario Terminal Market



# Climate refugia & shifts in arable regions



# Cooperatives lead the way

