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
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

- Suppliers
- Manufacturer/Product Maker
- Distributor
- Consumer

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

**CA (N = 195)**

**Production Ag**
- Q1: -24%
- Q2: -57%
- Q3: -42%
- Q4: -31%

**Processing/Manufacturing**
- Q1: 7%
- Q2: -7%
- Q3: -14%
- Q4: -39%

**MN-WI (N = 167)**

**Production Ag**
- Q1: 4%
- Q2: 34%
- Q3: 28%
- Q4: 17%

**Processing/Manufacturing**
- Q1: 20%
- Q2: 22%
- Q3: 29%
- Q4: 25%
USDA-AMS-TSD funded research
USDA-AMS-TSD funded research
From online cart to plate: What Amazon’s retail domination means for the future of food

Carly Livingstone a *, and Irena Knezevic b
Carleton University

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

National Grocers Association report (March 2021).
Democratizing data and models

Intelligent Cyberinfrastructure with Computational Learning in the Environment (ICICLE)
Wisconsin study area
• Ashland
• Bayfield
• Burnett
• Douglas
• Forest
• Iron
• Langlade
• Marinette
• Menominee
• Price
• Rusk
• Sawyer
• Vilas
USDA-AMS-TSD funded research
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.
Climate refugia & shifts in arable regions
Cooperatives lead the way