How Land Grant Universities are Helping Regional Food Hubs Succeed
How Land Grant Universities Can Help Regional Food Hubs Succeed

MSU’s Center for Regional Food Systems and the Michigan Food Hub Network

Rich Pirog – Director
MSU Center for Regional Food Systems
National Food Hub Conference – Atlanta, Georgia
MSU Center for Regional Food Systems (CRFS)

Mission: Develop regionally integrated, sustainable regional food systems

Work: Michigan Good Food Charter, food access and health, farm to institution and farm to school, healthy food financing, food hubs, food systems planning and food policy, organic production and marketing, beginning farmers, city-region food systems in a global context
Michigan Good Food Charter – 2010-2020

“Good Food” policy framework
food that is affordable, fair,
green, and healthy

6 goals – local food purchases
and fair jobs, healthy food
access, nutrition standards and
food systems education

25 agenda priorities

More than 25 MI orgs active

www.michiganfood.org
Michigan Food Hub Network (2012 – present)

- Learning community of hubs and those that support or supply or do research with hubs
- Accelerate innovation and adoption of best practices
- Strong partnership with MDARD at state level and with National Food Hub Network
- Increase capacity of food hubs to supply healthy foods to low-income communities
- Funds from Kresge and Kellogg Foundations
- Three statewide meetings/year --- webinars and technical publications
Nested networks for MI Food Hubs

Wallace - National Network

Other Regional Networks in MI
Farm to Institution
Local Food Councils
Meat Network

MI Food Hub Network
CRFS, MMC, MDARD
MSU Extension*

*MSU Extension plays key role!
MI Food Hub Network – Outcomes-Outputs

• Increased market opportunities for MI farmers
• Increased business to business cooperation – 39% of members formed new partnerships
• UVM Food Hub Manager Certification program – 9 Michigan participants in 2015-16
• Feasibility study – statewide IT platform for range of business functions – value stream mapping
• Cooperation with MI Farm to Institution Network – joint annual meeting
• Leverages state investments with private and federal investments (grants, TA, loans) – 31% of respondents have secured new funding
Other MSU CRFS Networks

MI Meat Network
- USDA AFRI grant – focused on building capacity for small livestock producers & meat processors

Farm to Institution Network
Coordinated effort to increase Michigan grown food sales at institutions
- K-12
- Colleges/Universities
- Hospitals

[Image of chickens and a barn]
Michigan Local Food Council Network

• Started in 2015 with 6 active local councils
• Convene all councils; provide funding for existing & new councils, education and policy
• Existing councils mentor new councils
• Direct connection to Michigan ICC*

*equivalent of state-level food policy council
MICHIGAN GOOD FOOD FUND
farm to fork assistance

A public-private partnership loan fund that provides financing & business assistance to good food enterprises that benefit underserved communities across Michigan.

$30 Million available
Other CRFS efforts – food hub & Good Food Charter connections

• Michigan Good Food Charter - Shared Measurement
• HoopHouses for Health (with MIFMA)
• Beginning Farmer Project (with MIFFS and SOF)
• National Food Hub Survey with Wallace (every 2 years)
We envision a thriving economy, equity, and sustainability for all of Michigan and its people through a food system rooted in local communities and centered on good food. We define good food as food that is healthy, green, fair and affordable. Achieving the six goals of the Michigan Good Food Charter drive our strategies and investments.

**Preconditions:** A) Use of Collective Impact Framework with 5 conditions of 1) Common Agenda, 2) Shared Measurement Systems, 3) Mutually reinforcing activities, 4) Constant Communication, and 5) Backbone Organization – B) Understanding of Good Food working definition - C) Strong partnerships, including with MSU Extension, foundations - and D) High functioning Good Food Charter Steering Committee (as well as other committees operating across the Network of Networks)
Thank you

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Food Hubs & Iowa State University

National Food Hub Conference

March 30, 2016
Savanna Lyons
Graduate Research Assistant
Activities of current food hubs in Iowa

Scope in 2013...

• $4.5 million total gross revenue
• Employed a total of 58 people
• Sold products from 459 farmers
• 62% were reported to be profitable

Based on survey responses from 13 food hub managers and 11 key informants
ISU EXTENSION & OUTREACH - APPROACHES

- **FUNDING** for innovative food hub projects
- **EDUCATION & OUTREACH** for food hubs and producers
- **COLLABORATIVE RESEARCH** on financial management, production planning, business models, other topics,
- **FACILITATION** for Food Hub Managers Working Group
FUNDING: Marketing & Food Systems Initiative

Part of the Leopold Center for Sustainable Agriculture’s grant-making program (first funded through the Iowa legislature in 1987 with a tax on fertilizer nitrogen)

8-10 multi-year projects at a time

$50,000-$70,000 per grant, total of $250,000-300,000 per year

“Food hubs / food business distribution development” were explicit focus areas on the RFPs in 2014-2016
FUNDING: Marketing & Food Systems Initiative

Some project titles of grants awarded for food hub work...

Feasibility studies and business planning
• “Building a direct-to-consumer distribution system in Iowa” (2007)
• “Research and development of an online local foods buying club cooperative” (2011)
• “Establishing shared-use processing facilities at three possible locations in central and south central Iowa” (2012)

Market Development
• “Increasing the capacity of a local food hub to service the public school market” (2014)
• “Increasing local food consumption in rural communities by partnering with non-traditional food retailers” (2015)
New nodes for existing food hubs
• “Market development and logistics for local food distribution in the Cedar Valley” (2014)
• “Investigating feasibility of food hub node expansion in Dubuque, Iowa” (2016)

Operations & logistics
• “Supply chain management for Iowa regional food systems” (2015)
• “Workflow optimization for Iowa regional food hubs” (2016)
EDUCATION & OUTREACH: for hubs & farmers

• Food safety training and systems, e.g. Group GAP

• Technical assistance for farmers interested in working with a food hub (marketing, regulations, etc.)

• Outreach to buyers and schools on benefits of local foods
  - Cycle menus with schools, retail pilots with grocery stores, worksite food box program…..

• Assistance with Board leadership and policy development

• Sharing best practices and research findings

Courtesy of Teresa Wiemerslage, Region 4 Program Coordinator, ISUEO
EDUCATION & OUTREACH: Iowa Food Hub

Photos courtesy of Iowa Food Hub
IFH Goals
A. Small and Medium-Sized Farm Viability
B. Local Economic Development
C. Job Creation and Development
D. Food Access and Equality
E. Beginning Farmers
F. Food System Research and Education
G. Operate Iowa Food Hub as a way to achieve these goals

IFH STAFF PRIORITIES
(Business Mission)
1. Sales (A,B,C)
2. Buyer Engagement/Development (A,B,C)
3. Marketing and Visibility of IFH (B)
4. Improve Food Access (D)
5. Education and Outreach (A,E)
6. Research (F)

ISU EXTENSION PRIORITIES
(Social Mission)
1. Research (F)
   Market Development
   New Product testing
2. Education and Outreach (A,E)
   Food Safety Training
   Farmer assistance with production, marketing
3. Improve Food Access (D)
4. Marketing, visibility of food systems (B)
5. Buyer Engagement/Development (A,B,C)
6. Sales (A,B,C)

Priorities are reversed for each partner. Mutually beneficial partnership creates a systems approach to change.
Starting a food hub is a capital-intensive process. What should a manager do if adequate start-up money is not available?

It is often assumed that starting a food hub is a capital-intensive process requiring large investments in infrastructure, transportation, logistics and personnel at the outset. While grants or loans can provide start-up funds for a new food hub distributing fresh local produce, in many cases these resources are not available. Grants for a new business can be hard to find, and most financial institutions are not willing to lend to start-up operations, especially those that sell perishable food items. Fortunately, there’s hope. For the Iowa Food Hub, experience has shown that food hubs can be started with very little capital.

What is Cash Flow?

Cash flow is the movement of money into or out of a business. For a business owner, cash is the amount of money that the business has in its bank account and on hand – that is, how much money the business has available to spend at a given time, without incurring additional debt or selling something.

Selling goods or services creates positive cash flow (money moving into the business), but not until the business actually receives money from the customer. Likewise, if the business incurs an expense, it will only experience negative cash flow when it pays the bill for the expense. Thus, the flow of cash and the flow of goods and services are not necessarily identical.
Examples of reports on best practices & lessons learned:

- “Starting a worksite food box program”
- “Managing cash flow for a low-capital food hub startup”
- “Using accounting software for food hubs: processing traceable orders”
- “Production Planning for Aggregators”

See store.extension.iastate.edu
and leopold.iastate.edu/pubs
and iowafoodandfitness.org
31 sites of “food hubs or food hub related activity” identified in Leopold Center report

Challenges identified by food hub managers

- Managing growth (decisions about):
  - Top Challenge: 2
  - Second or third top challenge: 5

- Balancing supply and demand:
  - Top Challenge: 3
  - Second or third top challenge: 2

- Accessing wholesale, retail, or:
  - Top Challenge: 3
  - Second or third top challenge: 0

- Access to capital:
  - Top Challenge: 1
  - Second or third top challenge: 2

- Dependence on volunteer labor:
  - Top Challenge: 0
  - Second or third top challenge: 3

- Funding needed infrastructure:
  - Top Challenge: 0
  - Second or third top challenge: 3

FACILITATION: Food Hub Managers Working Group
Quarterly meetings...
NCSARE grant for multi-hub inventory sharing program

*Blooming Wooly Acres only provides transportation for Hansen Dairy and does not sell product to any of the Food Hubs*
Benefits as described by food hub managers

“There is no better way to understand the other food hubs than to see their locations.”

“Clearer ideas about cross-hub collaboration opportunities, plus development of specific plans to facilitate collaboration, including securing grant $ to implement these plans.”

“The process of bringing together individuals/organizations that may not have initially seen any need to work together and to foster trust between them is one of the greatest benefits from these ongoing meetings.”
FACILITATION: Food Hub Managers Working Group

Leveraging professional development opportunities...

• National Food Hub Conference scholarships
• Coming Soon: Iowa-based short course
Supply Chain Management for Regional Food Hubs

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Overall Research Objective

Develop quantitative & data-driven supply chain management tools to improve regional food distribution efficiency & effectiveness

- Select appropriate logistics **performance metrics** for producers and food hubs
- Implement methods to **collect data** to assess these metrics
- Design & implement tools and methods to **improve processes**
Current Projects with Iowa Food Hubs

1) Developing producer quality assurance program
2) Matching supply & demand
3) Tracking & reducing transportation costs
4) Measuring & standardizing workflows within food hub distribution centers
5) Developing systems for inventory tracking & logistics coordination among food hubs
1. Quality Assurance

• Design & implement a “Balanced Scorecard” to enable food hub manager to assess & communicate producer performance over time

• Attributes & weights: example from an Iowa food hub:
  • Quality – 40%
  • Packaging – 20%
  • Delivery – 20%
  • Responsiveness – 10%
  • Cost – 10%
2. Matching Supply & Demand

- Use food hub’s historical sales data to identify & understand trends
- Analysis provides decision support for food hub manager

**Some results on eggs sales**

Average 219 dozens of eggs were sold in an order cycle with an average of 7 unique producers selling in each cycle.

**Conventional vs. organic milk**
3. Transportation Costs

- Use data & modeling to support food hub transportation decisions, including:
  - How much to charge per mile for pickups & deliveries
  - Whether or not to accommodate certain pickup/delivery locations (is it worthwhile?)
  - What data is needed to support these decisions, and how to collect it
4. Workflow Measurement & Standardization

- Observe & perform time studies of food hub employees, with a focus on improving
  - Efficiency
  - Accuracy
  - Safety
- Determine appropriate labor requirements for specific tasks & workloads
- Develop standardized work methods & training manuals
5. Inventory Tracking & Logistics Coordination

- Develop an inventory tracking system to support an existing transportation & warehousing coordination among four Iowa food hubs

- Shared IT system:
  - Labels
  - Scanning
  - Inventory management system

- Will require significant producer participation
Iowa Food Hub Logistics Coordination

*Blooming Wooly Acres only provides transportation for Hansen Dairy and does not sell product to any of the Food Hubs.*
Lessons Learned - Extension

- Provide competitive funding to support innovation
  If funding for research collaboration is available, try to issue an RFP – make the process transparent and fair
- Support learning communities of practitioners
  Step back and listen
- Communicate with the public about roles and intentions
  Keep farmer groups in the loop
- Focus on opportunities for farmer
  Clearly communicate how they benefit
- Don’t get so focused on profitability that you forget the mission
  Make sure your spokespeople articulate the mission-driven nature of food hub work
Lessons Learned – Supply Chain Research

• Give collaborator stipends when doing research or testing out new tools
• Develop formal TA agreements with mutual expectations
• Implementation of a new system can be difficult & time consuming; researcher must be up front with hubs about this & hubs must commit to follow through
• Identify & incorporate all key stakeholders who will be implementing a new system into the process
• Set boundaries around the scope of work, especially for students
Thank you!

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UC SAREP Food Hub Collaborative Learning Network

GWENAELE ENGELSKIRCHEN & GAIL FEENSTRA
Context for current work with Food Hubs

- “Ag of the Middle” regional research with LGUs nationwide
- Values-based supply chains and food hubs
  - Literature reviews
  - Case studies in CA
  - Toolkit for CA farmers and ranchers
  - Annotated bibliography of pubs and resources
Values-based food supply chains (VBSCs)

- Deliver more products to a larger region than farm-direct markets and are distinguished from mainstream food supply chains by:
  - Products differentiated based on superior quality, environmental stewardship and social responsibility and
  - The characteristics of the strategic relationships that link the supply chain participants.

- Food Hubs are part of VBSCs
Birth of the Food Hub Collaborative Learning Network

- Grant from UC Global Food Initiative (2015) to strengthen the emerging network of Northern CA Food Hubs

- Assumptions of the project:
  - Helping food hubs to thrive as businesses will help small and medium scale farmers to thrive
  - UC SAREP is in a good position to mobilize resources towards the hubs and facilitate learning between the hubs
Project Activities to Date

- Selected 7 Food Hubs (out of approx. 12 in CA) to “pilot” the collaborative learning network
- Conducted a Needs Assessment Survey of these 7 hubs
- Held a Convening of Hubs in early March
- Project responsive to Hubs’ Needs; SAREP providing the “canvas” and mobilizing resources
The majority of the food hubs work with both suppliers and customers within a geographic radius of 100 miles or less.

One food hub works with suppliers in a 200 mile radius.
CA Food Hub Collaborative Network
Profile of Pilot Hubs

- 3 of the food hubs are less than 5 years in operation
  - (2 are less than 3 years in operation).
- 2 are over 10 years in operation
- 4 are non-profits and 3 are S-Corps
- None of the hubs have more than 15 employees. Half have less than 5.
- Most hubs are hiring year-round staff; slightly more part-time staff than FT
- 1 hub relies heavily on volunteer labor.
- Average 2,500 sq. feet, with a range from 150-9,000 sq. feet.
  - Median is 1,200 sq. feet
The majority (4 out of the 7 food hubs) had $500,000 or less in gross sales for 2015. 2 are over a million (but less than 2.5 million).

2 of the food hubs were profitable last year, and 1 was at break-even. The 4 that did not break-even are projecting to cover their operating costs with their revenue in the next 1-4 years.

3 food hubs operated last year with 100% grant funding. 2 operated with 10-30% grant funding and 2 operated with no grant funding.
The majority of gross sales for the hubs are in vegetables (50%) and fruits (43%).

Remaining product categories (meat, eggs, dairy, nuts, value-added and processed items) account for on average 1-2% each of each hub’s gross sales.

Skewed in the direction of fruit sales because one of the hubs gets a large percentage of its gross sales from fruit.
Average number of total suppliers for each hub is 46.

The total number of suppliers for all seven of the food hubs is 321.

The majority of suppliers to the hubs are in the vegetable and fruit product categories as well.

- 23 on average in the vegetable product category and 15 on average in the fruit category.
Food hubs are anticipating the most **growth** in sales in:

- Grocery Stores (5 of the 7 hubs)
- Restaurants (4 of 7)
- K-12 Food Service (4 of 7)
### Hubs’ Competitive Advantage

<table>
<thead>
<tr>
<th>Service/Feature</th>
<th>Number of Hubs who said this response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer service (delivery, convenience, responsiveness)</td>
<td>5</td>
</tr>
<tr>
<td>Product quality</td>
<td>3</td>
</tr>
<tr>
<td>Unique story (farmers, regionality)</td>
<td>3</td>
</tr>
<tr>
<td>Proximity to customer base</td>
<td>2</td>
</tr>
<tr>
<td>Only business occupying this niche in the area</td>
<td>2</td>
</tr>
<tr>
<td>Farmer support</td>
<td>1</td>
</tr>
</tbody>
</table>

- “Focusing on a specific micro region of supply”
- “Freshness: our food is picked to order and not pulled off a warehouse shelf”
- “We are the only food hub in our area”
- “We actively share the story of our farmers to connect consumers with where their food comes from”
- “Custom service to clients”
- “Farmer financing”
## Topics for TA

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of hubs who selected this topic</th>
<th>Weighted priority by ranking given</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing supply chain efficiency</td>
<td>5</td>
<td>1.71</td>
</tr>
<tr>
<td>Accessing capital/options for financing</td>
<td>3</td>
<td>1.29</td>
</tr>
<tr>
<td>Reaching new markets/assessing best sales channels for growth</td>
<td>3</td>
<td>0.86</td>
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<tr>
<td>Product pricing</td>
<td>2</td>
<td>0.57</td>
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<tr>
<td>Software development/information management</td>
<td>2</td>
<td>0.43</td>
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<tr>
<td>Food safety compliance</td>
<td>2</td>
<td>0.43</td>
</tr>
<tr>
<td>Supplier/grower support</td>
<td>2</td>
<td>0.29</td>
</tr>
<tr>
<td>Supplier/grower recruitment or communication</td>
<td>1</td>
<td>0.29</td>
</tr>
<tr>
<td>Business financials - maintaining/tracking financial information</td>
<td>1</td>
<td>0.14</td>
</tr>
</tbody>
</table>
Value to Hubs So Far…

- Huge benefit from learning from other hubs, face to face dialog, meeting other hubs
- Identified areas for future collaboration
  - Inter-hub purchasing and distribution networks
  - Branding: articulating food hub value to better compete with green-washing
- Sharing resources and information
- Addressing shared challenges (pricing, financing)
- Policy advocacy
- Providing better support to farmer/suppliers
For more information on California Food Hubs

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Services/ Activities Extension Provides to Food Hubs

- Assessments, evals, metrics
- Convening opportunities
  - Share needs, challenges
  - Share ideas for strengthening networks
- Provide T/TA
- Buyer introductions for hubs, farmers
- Repository for tools, new research, resources
- Facilitate ongoing communication
- Grant writing; identify funding