

Catalyst Grant Final Project Report

Part 1: The following sections will be made **publicly available** on the Graham website.

Project title: Towards a Sustainable Meat Supply-Chain in Michigan

Project team: Principal Investigator(s): Jennifer Blesh; Joseph Trumpey

Team Members: Shannon Brines; Alex Bryan; Trey Snow

Summary

In recent years, there has been growing demand for local and sustainably sourced livestock products. Shocks to the supply chain from the COVID-19 pandemic have only expanded interest in increasing the adaptive capacity and resilience of food systems. Yet, the supply chain lacks a shared understanding—from producers to end consumers—of what sustainably and humanely raised animal products are, and how they vary in terms of their environmental, economic, and social impacts. The overarching goal of this project was to support and expand local and regional sustainable livestock product supply chains in southeastern Michigan. To achieve this goal, we reviewed the literature on these topics and assembled technical information to share, and we conducted interviews asking stakeholders in the supply chain about their experiences and needs. We shared findings from the literature review and interviews as a resource with attendees of two virtual events held in March, 2021, in which we facilitated communication among stakeholders. A significant portion of the interviewees and workshop attendees wish to stay involved with future “working group” discussions. MSU Extension emerged as our primary external partner and champion, helping to plan and conduct the two events and also the next stages. Our team sent multiple follow-up emails to maintain momentum after the events, and there is a plan in place to reconvene in late summer/early autumn 2021. Our long term goal is to support continued communication and action through the formation of a regional working group.

Project background and approach

While the original project goal was to create a stakeholder network to increase supply-chain capacity - from farmers to institutional procurement - we modified this goal due to the COVID-19 pandemic. In particular, we de-emphasized the farm to institutional component given the realities of diminished institutional procurement during the pandemic. Instead, we focused on providing a forum for local and regional stakeholders to discuss issues and concerns they saw for long term sustainability and adaptive capacity of meat supply chains. We thus maintained the goal of boosting existing stakeholder networks and assisting in their empowerment for working group formation and continued dialogue. The main issues and concerns that stakeholders identified were building adaptable systems, building cooperation (at least informally, if not formally through co-ops), and expanding regional processing capabilities.

External stakeholders

Our external partners include: MSU Extension, MSU, Washtenaw County Food Policy Council, Washtenaw County Conservation District, and MDining (which is more internal). MSU Extension was heavily involved via Jae Gerhart (Washtenaw County Food Systems Coordinator) who was a co-planner for our two events. MSU Extension and MSU are invested in this work since it is part of MSU Extension’s mission and MSU faculty, such as Jason Rowntree, are conducting research related to the sustainable management of livestock. The Food Policy Council and Conservation District are interested in this work from the perspective of identifying how local policy could incentivize sustainable supply chain development, recognizing the important benefits for environmental outcomes and local economic development. Additionally, there are individual stakeholders who are heavily invested in the goal of local and sustainable meat production. For example, two separate family businesses are trying to establish small processors in Washtenaw County, and two individual farms have collaborated and started a

business, Washtenaw Meats, in 2021. We believe all of these external partners are interested in being a core group that helps push this nascent working group forward.

Activities/Process

The project began with an initial literature review of peer-reviewed and gray literature on the major topics of interest: farm-to-institution supply chains and the sustainability of beef production. The project also began outreach to major partners, including MSU Extension, livestock farmers, and potential institutional purchasers. Through these initial conversations we gained a better understanding of the topics of interest, which we used to refine our interview guides and outreach approach. Between August - November, 2019, we contacted farmers, processors, and large-scale purchasers. The interviews varied slightly in terms of flow and follow-up questions, but all generally followed a semi-structured guide with questions adapted from a USDA ERS report regarding supply chain size and performance (King et al. 2010; pages 7-8 and 62-68). Findings of these interviews are outlined below. In total we interviewed or met with the following range of stakeholders:

- **Farmers:** We conducted interviews with 8 livestock farmers (7 in Washtenaw County and one in western Michigan). Each farmer uses unique practices, and their farms represent a gradient from intensive rotational grazing to conventional grain-fed systems. Our conversations covered production practices, business models, and the potential for local and institutional sourcing.
- **Researchers:** We met with two research groups focused on the sustainability of beef and local supply chains: the Michigan Meat Network and Dr. Jason Rowntree's team at the MSU Lake City Research Center.
- **Institutional Purchasers:** Project team member, Alex Bryan, provided contact with MDining staff, distributing partners, and students working on other MDining sustainability efforts.
- **Other Stakeholders:** Damian's Craft Meats, Argus Farm Stop, Mighty Fine Poultry Processing

Following the impacts of the COVID-19 pandemic, and growing attention to the need for resilient and flexible local supply chains, we shifted our activities to better understand these immediate challenges. Starting in Winter 2020, we began updating our literature search to understand how conversations around local procurement had shifted in the context of the pandemic in Michigan and throughout the US. In conversation with major partners, including MSU Extension, we focused on designing outreach events that could support and promote local purchasing and sustainable beef production. Activities for planning these events included drafting promotional materials, inviting and coordinating with external speakers on speaking topics, and logistical planning for audience outreach and follow-up. After the event, the project team followed up with interested stakeholders to continue the conversations around expanding opportunities for the local meat supply chain in southeastern Michigan.

Findings

Following an initial round of interviews and literature review in 2019, the project team developed a preliminary findings report that covered the major takeaways from conversations and reading (see project attachments, pages 6-7).

2021 Findings:

Following the talks and group discussions at the 2021 events, many of the 2019 findings still rang true. Formal presentations, and ideas shared in breakout rooms, echoed many of the challenges mentioned above: a lack of reliable processors that meet USDA slaughter requirements; the need for creative solutions to cover the fixed costs of animal slaughter and processing, including whole-animal purchasing and diverse storefronts for supplemental income; and, the potential for a cooperative production or marketing model to help share costs and grow a customer base. Other considerations for the future of sustainable beef production and institutional procurement were also raised. Speakers Jason Rowntree and others discussed the challenges of using a single metric - greenhouse gas emissions - to fully assess the impacts of beef production, which affects many social and ecological outcomes. Instead, ongoing and

future research may provide southeastern Michigan farmers with the ability to measure a broader range of ecosystem services and, in turn, provide sustainable meat to larger buyers, such as MDining. Lastly, the 2021 seminars demonstrated widespread enthusiasm from consumers, farmers, and other businesses for increasing the supply of locally-produced meat and livestock products.

Outputs

- **We produced multiple documents for our two stakeholder events, as well as a primer that we shared with participants ahead of the event. These are found in project attachments. The two events were:**
 - March 4th: 1-3pm, Zoom Seminar #1: *Towards a Sustainable Meat Supply-Chain in Michigan: New Realities and Future Possibilities* - with a focus on southeastern Michigan examples of novel “processing ventures” and “digital marketing.”
 - March 15th: 1-3pm, Zoom Seminar #2: *Towards a Sustainable Meat Supply-Chain in Michigan: New Realities and Future Possibilities* - focused on the state of scientific knowledge of grassfed and regenerative beef and livestock production models, and collaboration to increase their adoption, including co-operatives and innovative business models.
 - Seminar #2 Primer: Covered key topics and debates around grassfed and regenerative beef production as well as livestock cooperative models.

We do not have any peer-reviewed publications or presentations to date.

Outcomes

Our primary project outcome is that we perceive enough momentum and interest to support a Sustainable Livestock Working Group. This network will continue meeting and taking active steps to improve our local food system. Specifically, nine of the approximately 50 event attendees expressed strong interest in participating, and this does not include some of the planners and speakers, or additional local champions who were unable to attend the events. We will follow up with all registrants by email, as well as all of the stakeholders we talked with for the project interviews, by late summer. This email communication will remind attendees about the resources from our March events, provide updates from attendees themselves (e.g., the recent formation of a private business “Washtenaw Meats”, and a new survey of southeastern Michigan meat producers being conducted by an entrepreneurial processor), and will then propose to formally convene a working group meeting in early autumn in collaboration with MSU Extension partner, Jae Gerhart. In our original proposal we hoped that one outcome would be to identify sources of financial support for the working group. While that has not yet happened, we believe this working group for continued dialogue is already sufficiently established (e.g., as part of Jae Gerhart’s MSU Extension work plan) that it has enough in-kind support to continue.

An additional desired outcome stated in our original proposal was to establish authentic relationships with a local network of diverse stakeholders who are interested in sustainable livestock production, and who are open to helping us research the sustainability of this supply-chain, spanning procurement, agroecosystems, life cycle analysis, public health impacts, climate impacts, and beyond. We believe we have been successful in initiating those relationships. General feedback from individuals we interviewed and interacted with during the events is that they are happy to engage - they feel like being involved with UM and MSU can be beneficial for them. At least two of the producers who we interacted with have signed up to be part of MSU’s grassfed beef farm data collection network. One presenter at the second virtual event, Kyle Apsey, expressed excitement to partner on research projects for which his farm would be relevant. We suspect other participants will be open to future engagement as well when we follow up with them at the right time. Lastly, through this Catalyst award, the UM and MSU relationship has established deep roots. Jason Rowntree (MSU) and Jennifer Blesh (UM) plan to pursue future collaborations and larger-scale grant proposals (e.g., USDA AFRI) where the two research groups could really complement each other. While some of those proposals can take a year or more to come to fruition we believe an authentic and exciting new research relationship has emerged.

Part 2: The following sections are for internal program tracking and program improvement and **will not** be shared publicly.

Project personnel details

At the start of the project in 2019, two research assistants were hired, Maren Spolum (PhD candidate, SPH) and Trey Snow (SEAS 2019). Their primary responsibilities included literature review of regenerative, sustainable, and grassfed grazing methods and farm to institution purchasing of livestock. Additionally, they researched and compiled a list of potentially interested stakeholders to interview, including MSU Extension personnel, farmers, actors engaged in processing and purchasing, and institutional purchasers like MDining. Following that period, Trey Snow was the primary research assistant who conducted interviews with stakeholders and key informants. Trey also summarized the literature review results and created 1-2 page informational handouts and helped plan the stakeholder/working group meeting. At this point, the pandemic accelerated and we paused the project because it was not feasible to meet in person. We were fortunate at the end of calendar year 2020 to be able to hire Trey back onto the project. Trey helped us with the desire to widen the scope of the project, and then to plan, run and debrief the remote, Zoom workshops we hosted in March 2021.

Budget

Expenditures in last 6 months:

\$250 honorarium - Rod Ofte
\$200 honorarium - Kyle Apsey
\$1355.95 (approximately) - Trey Snow - 64 hours plus FICA
\$1294.57 - Shannon Brines - 2021 effort

Remaining balance: \$24.60

Evaluation

We had 85 unique individuals register for one or both of our events, and we had 35-50 individuals tuning in for all or some of the events. Of those, 34 were from Washtenaw County, 16 from counties adjacent to Washtenaw, and the remainder were based in other Michigan counties or a few were outside Michigan (5 individuals). Given the difficulty of engaging with this demographic via virtual events we were very pleased with these registration and attendance levels, and considered them a success.

Follow-up survey responses were obtained from 16 of the event registrants, which was not the response rate we desired, but provided useful feedback nonetheless. Some highlights from our post-event survey results included: 56% said they were definitely interested in participating in a working group; an additional 13% said they might consider participating in a working group; 100% of the respondents stated the events were valuable or very valuable (25% said very valuable); 100% of respondents agreed or strongly agreed that they increased their knowledge of the topics covered; 94% of respondents agreed or strongly agreed they knew where to find additional resources about what was presented; and 63% had a concrete action step they planned to take. We considered this feedback to indicate that the events were successful. The registration demographics and survey responses are available as an internal/not-public attachment.

Two of the event speakers, an entrepreneurial couple planning to open a multi-species small processing business, made some important contacts during our events to help them explore relationships with local townships regarding the siting and zoning of their proposed business. Additionally, they sent out a "SEMI Meat Processor Survey" within 6 weeks of our events, which went to the registrants as well. While we cannot take credit for their continued work, we hope that we helped to facilitate and support their innovative efforts. In terms of long-term goals, we believe that we have established important initial connections and relationships with possible working group stakeholders, as well as potential stakeholders

to invite to participate in future research projects assessing the multidimensional outcomes of different management systems. Additionally, Jennifer Blesh (UM SEAS) and Jason Rowntree (MSU) have plans to collaborate on future research proposals to the USDA NIFA program.

List of Attachments:

The following documents are included in the “Final Report Attachments” PDF:

- Agenda and speaker bios for 3/5/21 and 3/14/21 virtual events
- Event primer for 3/14/21 event to summarize topics of interest for attendees
- Event attendee demographics and county of residence
- Producer/criteria draft for beef wholesaler and MDining partner, Quality Meats, to help guide local purchasing
- Article list including citations and hyperlinks to research highly relevant to the project
- 2021 literature update includes impacts of COVID-19 on local meat and institutional procurement

Event Recordings:

Event 1: https://mediaspace.msu.edu/media/t/1_hgyjj6gj

Event 2: https://mediaspace.msu.edu/media/t/1_9273d34a