DEVELOPING MICHIGAN MEAT PROCESSING
PART 1: PROCESSING AND REGULATION

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MICHIGAN STATE UNIVERSITY
Center for Regional Food Systems

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CONTENTS

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INTRODUCTION

Meat processing is a very strictly regulated and inspected industry in the United States

While local food markets comprise a small share of food expenditures nationally, consumer demand and interest in local food systems is increasing. Despite this, locally sourced meat sales have trailed growth of crop production for local sales, with about 44.1% of all vegetable and melon farms participating in some form of direct sales compared to only 6.9% of livestock operations.[1]

The authors see considerable opportunity within Michigan to support the plethora of smaller meat processors networked across the state to develop local and regional meat systems. In part this is because, despite the majority of beef, pork, and lamb in the United States coming from a few large processors inspected by the U.S. Department of Agriculture (USDA), the majority of USDA-inspected processors that exist are small facilities, processing less than 10,000 head of beef, pork, and/or lamb annually.[2] Buyers seeking local food to market to others (through restaurant or food service) are legally required to source meat from USDA-inspected processors (see Figure 1).

Miller[3] interviewed small Michigan meat processors and regulators to explore challenges and opportunities in the Michigan meat processing industry. The following areas surfaced in this study that constrain the development of local and regional meat markets in Michigan:

1. Processing and regulation
2. Labor markets
3. Locational mismatch

These three areas do not include all processor constraints for supplying meat demands in Michigan; rather, they were the dominant concerns within the industry during the study. This is the first of three briefs that discuss challenges and opportunities for local meat processing and regulation in the United States.

Meat processing is a very strictly regulated and inspected industry in the United States.[4,5] A number of factors affect livestock producers' feasibility to sell meat locally, most notably the following:

- Animals must be harvested and their meat processed at a USDA-inspected facility.
- Fixed processing costs can be proportionally higher at small meat processors, affecting the price of processing for livestock producers. Smaller processors have lower volume processing than larger processors, which proportionally increases the fixed costs for smaller processors to meet regulations and food safety requirements to reduce pathogens and address biosecurity issues.[6]
- Smaller processors have higher transportation and logistics costs due to travel distance from the farm to the processor.[6]

1 Martinez, S., Hand, M., Da Pra, M., Pollack, S., Ralston, K., Smith, T., . . . Newman, C. (2010). *Local food systems: Concepts, impacts, and issues* (ERR-97). Washington, DC: United States Department of Agriculture, Economic Research Service. Retrieved from ers.usda.gov/publications/pub-details/?pubid=46395

2 Johnson, R.J., Marti, D.L., & Gwin, L. (2012). *Slaughter and processing options and issues for locally sourced meat* (LDP-M-216-01). Washington, DC: United States Department of Agriculture, Economic Research Service. Retrieved from ers.usda.gov/webdocs/publications/ldpm21601/28829_ldpm216-01.pdf

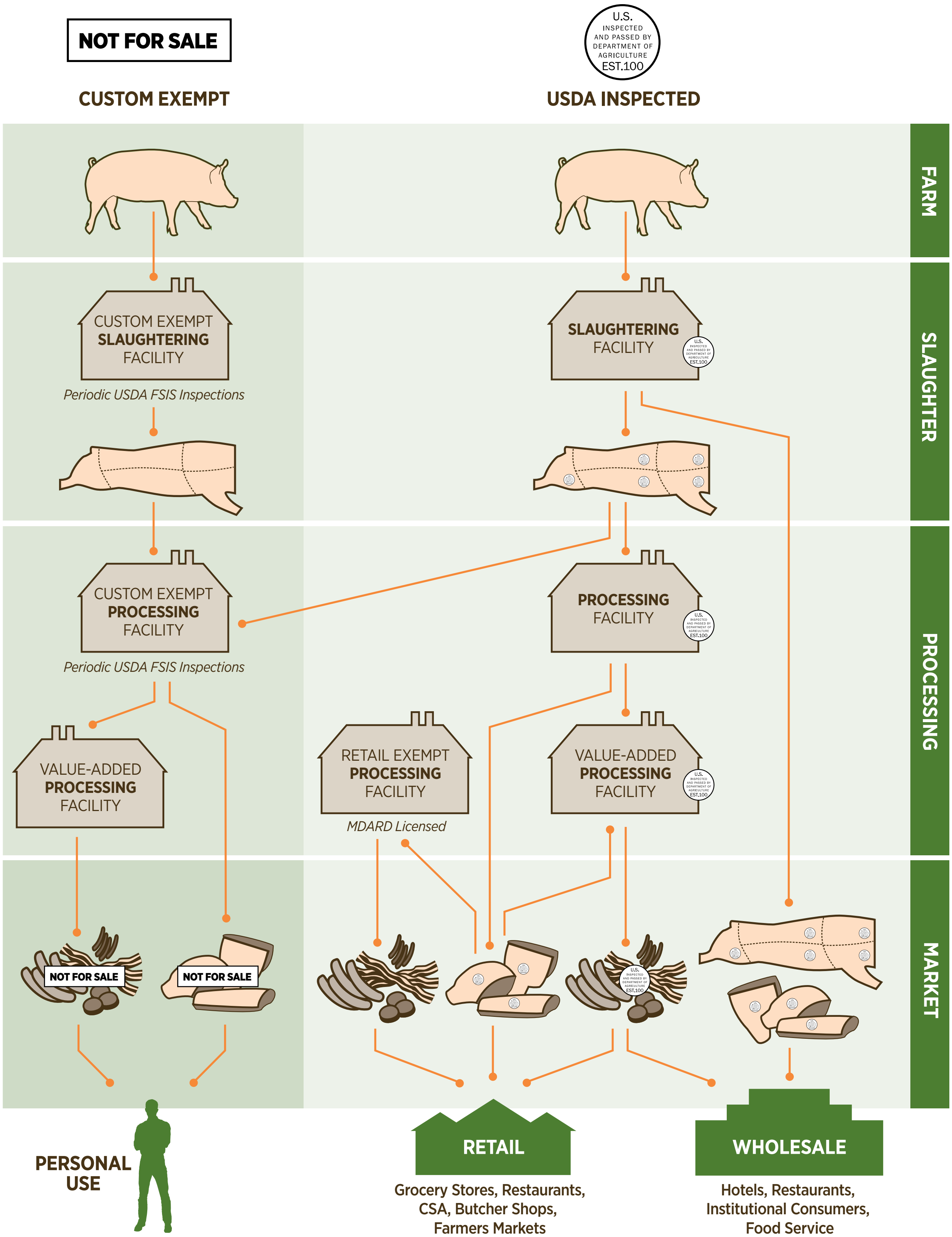
3 Miller, S. (2017). *Opportunities and barriers to growing Michigan's local food system: The case for meat processing* (Technical Report 2017-001). East Lansing, MI: Michigan State University. Retrieved from ageconsearch.umn.edu/record/253439/files/sp2017_001.pdf

4 Schweihofer, J., & Reau, B. (2012). *Opportunities in meat marketing: Meat inspection* (MSU Extension Bulletin E3114). East Lansing, MI: Michigan State University.

5 Niche Meat Processor Assistance Network. (2016). *Crash course: Meat processing 101: What are the rules?* Retrieved from nichemeatprocessing.org/wp-content/uploads/2016/08/CrashCourseTwo.Final_revised_10.1.pdf

6 Niche Meat Processor Assistance Network. (2016). *Crash course: Meat processing 101: Small plant economics.* Retrieved from nichemeatprocessing.org/wp-content/uploads/2016/08/CrashCourseThree.Final_revised_8.31.pdf

FIG. 1: Regulatory Routes to Purchasing Michigan Meat



PROCESSING REGULATION IN MICHIGAN—CHALLENGES AND OPPORTUNITIES FOR SMALL PROCESSORS IN MICHIGAN

CHALLENGES

COSTS: Those Michigan processors opting out of federal inspection largely name costs as the primary obstacle.[3] Processors view high costs as a combination of both fixed and variable costs, where the fixed costs exist regardless of the size of operation. Such fixed costs can be substantial for maintaining the status of USDA inspection and the additional labor required to manage compliance. Facilities with relatively high sales are better able to spread the fixed costs of USDA inspection over sales.

REGULATORY SUPPORT: Following the closure of the Madison, Wisconsin District Food Safety Inspection Service (FSIS) office in 2012, processors report that they have experienced greater frustrations regarding their questions and concerns around regulation. In 2012, the USDA closed a third of its 15 U.S. District FSIS offices, leading to longer wait times and greater frustration in addressing regulatory issues.

LIMITED MARKET OPPORTUNITY: Processors that are not USDA inspected have limited market reach for their products. Custom exempt processing businesses are unable to sell retail or wholesale cuts on a fee-for-service basis from livestock they slaughter or cut. USDA facilities have more flexibility with respect to their market channels but can be located a considerable distance away from livestock producers, increasing costs and so limiting market potential.

INCONSISTENCIES: A source of frustration and uncertainty for Michigan processors, as reported by Miller,[3] is a level of inconsistency across federal meat inspection. Processors shared that the level of detail and the infractions identified by inspectors may be inconsistent across facilities. Additionally, processors view federal regulations as extremely complex from an operational perspective and largely incomprehensible.

The regulation for making and packaging specialized processed meats varies by product, and no single safety plan exists that covers all products, processes, and packaging. Rather, the hazard analysis and critical control points (HACCP) plan and variances are establishment- and product-specific, providing processors a great deal of entrepreneurial latitude in developing and bringing products to market. Since each establishment validates its own HACCP plan and variances, implementing federally consistent standards for specialty meat safety is complex and time consuming.

OVERREGULATION: “Specialty meat processor inspections” are conducted by the Michigan Department of Agriculture and Rural Development (MDARD) to approve variances and, once approved, the subsequent “conventional” inspections on specialty meat processors include making sure processors are following their “specialty” food safety program. Interviews[3] showed that processors largely see both sets of regulations as one and the same, and having multiple inspections has generated a sense of overregulation with competing emphases. The authors note that there may be some inconsistency among inspectors, in addition to some processors not fully understanding the needs of specialty inspections, which may contribute to the sense of overregulation and frustration.

OPPORTUNITIES

INCREASE PROCESSING EFFICIENCY: Smaller processors have many advantages over large processors when it comes to serving the small livestock producer. Smaller livestock producers, seeking to market local meat, have small volumes and high processing needs. Small processors can generally meet these needs, with valuable experience and customized services available to complement livestock producer needs and products. However, volume is a key consideration for profitability for these processors.[1] Reviewing the capacity of holding facilities at processing plants may be helpful for finding bottlenecks in increasing batch sizes. Producers may consider different marketing channels to increase batch volume and decrease costs. The perceived quality differences in frozen meats compared to fresh meats restricts some markets and subsequently batch sizes. More education around the quality of frozen meat products, particularly with food service and local meat buyers, may enable larger batches at processing and greater efficiency for processors to manage their costs.

FURTHER NETWORK DEVELOPMENT: Networks and associations have been shown to be critical in approaching common business challenges[7] and creating collaborative learning spaces. The Michigan Meat Association (MMA), a group of small processors, enables dialogue with regulators to overcome some of the frustrations with compliance to meat processing regulations. As businesses across the meat value chain look to work together, the Michigan Meat Network is also developing a tool for learning, communicating, and engaging in business-to-business partnerships. The role of these two organizations becomes more relevant as regulations become more complex and collaboration and sharing to address these regulations becomes more necessary.

BETTER MARKET RESEARCH: A better understanding of the local market demand of third-party retailers and wholesalers for conventional and specialty Michigan meat may potentially help the Michigan meat processing industry grow and associated regulators understand the demand for retail exempt and USDA processing.

INCREASE NUMBER OF EXISTING FACILITIES WITH USDA INSPECTION: As detailed in the Michigan Meat Processing Capacity Assessment,[8] 37% of processors surveyed were USDA inspected and an additional 19% were at least moderately interested in becoming USDA inspected. Having more existing facilities become USDA inspected would increase processing capacity for wholesale and retail markets and create opportunities to develop local and regional meat markets. Conducting comprehensive feasibility studies for processors to become USDA-inspected facilities may enable them to understand costs associated with USDA inspection. An increased number of USDA-inspected facilities could also help lower producer transportation costs to USDA facilities. State funding to support feasibility studies of processors becoming licensed USDA facilities would provide opportunity in this area.

DEVELOPING NEW MARKET OPPORTUNITIES: Seeking opportunities for local and regional markets through reviewing the feasibility of different marketing channels[9,10] may help processors better understand their business models and which market channels are most profitable.

COMMUNICATION: More information through research is needed to understand the specific inconsistencies and perceived overregulation to streamline the regulatory system. Empowering MMA and the American Association of Meat Processors to continue to communicate between processors and state regulators should help streamline the system and increase efficiencies for meat businesses. Improving communication streams to help more processors understand regulatory changes would be beneficial.

7 Gulati, R. (1999). Network location and learning: The influence of network resources and firm capabilities on alliance formation. *Strategic Management Journal,* 20(5), 397–420.

8 Schweihofer, J., Wells, S., Miller, S., & Pirog, R. (2014). *Michigan meat processing capacity assessment final report.* East Lansing, MI: MSU Center for Regional Food Systems. Retrieved from foodsystems.msu.edu/resources/mi-meat-processing-report

9 LeRoux, M. (2012). *Livestock marketing channel assessment tool.* Retrieved from sare.org/Learning-Center/SARE-Project-Products/Northeast-SARE-Project-Products/Livestock-Marketing-Channel-Assessment-Tool

10 LeRoux, M. (2012). Choosing the best marketing channels for producers selling meat and livestock. *Cornell Smart Marketing Series.* Retrieved from publications.dyson.cornell.edu/docs/smartMarketing/pdfs/SmrtMkg%20Oct2012.pdf

SUMMARY

Currently, a number of factors in processing and regulation limit the volumes of meat that are moved within the Michigan value chain. Suggestions in this paper to increase the amount of meat produced and consumed within Michigan include the following:

- Improving efficiency in processing will help reduce costs. Some approaches are discussed in this paper.
- Network development among value chain, regulatory, and governmental players may help address some of the regulatory challenges.
- Specific market and regulatory research, including a feasibility study to increase the number of facilities that have USDA inspection, could support additional processing capacity.
- Enhanced communication channels among all that participate in processing and regulation may help processors overcome challenges.

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CRFS envisions a thriving economy, equity, and sustainability for Michigan, the country, and the planet through food systems rooted in local regions and centered on Good Food: food that is healthy, green, fair, and affordable. Its mission is to engage the people of Michigan, the United States, and the world in applied research, education, and outreach to develop regionally integrated, sustainable food systems. CRFS joins in Michigan State University's pioneering legacy of applied research, education, and outreach by catalyzing collaboration and fostering innovation among the diverse range of people, processes, and places involved in regional food systems. Working in local, state, national, and global spheres, CRFS' projects span from farm to fork, including production, processing, distribution, policy, and access.

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