Food Ecosystems Project:

Executive Summary

May 1, 2023

FOOD & BEVERAGE manitoba

Community Futures Manitoba

Background

The Food Ecosystems Project (FEP) was initiated in partnership with Food and Beverage Manitoba and Community Futures Manitoba, with support from industry partners Fireweed Food Co-op, Manitoba Agriculture, EDIT (Economic Development Investment and Trade), amongst others. Utilizing an industry-led, partnered approach, our goal was to understand why many small and medium sized enterprises (SMEs)[1] in Manitoba's agri-food industry struggle to succeed, fail to grow, and what supports are needed to ensure a vibrant, resilient, and thriving agri-food system in our Province. The focus of our project was on SMEs because despite the perception that this sector is dominated by large multinational enterprises (MNE), most agri-food entrepreneurs in Manitoba are SMEs with 1-10 employees.[2]

Methodology

Phase 1 of the FEP was undertaken between May 2022 and May 2023 and included in-person asset mapping sessions in Winnipeg (two), Arborg, Gimli, Stonewall, Niverville, Brandon, Neepawa, Portage la Prairie, OCN/ The Pas, Flin Flon, and Thompson and were attended by over 120 unique participants. One-on-one interviews with 50 SMEs were completed, and partnerships with various service delivery providers throughout the sector helped inform the results. Through Phase 1, we also produced multiple supportive research documents which are summarized further below.

The data assembled through our project describes the current capacity in Manitoba to support food product development, from farm, to commercialization and marketing, to the end consumer. Sources of information included primary (interviews and workshops) and secondary (web-based) research from SMEs, government departments, non-government or community-based organizations, and other support organizations. Key learnings and best practices across Canada were also identified in the areas of funding, leadership and market driven focus and economic impacts, as well as other characteristics. Final research documents produced through this research included:

1. Manitoba Food Development Facilities, Kitchens and Food Hubs Environmental Scan;
2. Canadian Food Clusters and Food Hubs Environmental Scan;
3. Asset Mapping Summary Report;
4. Regional Asset Mapping Reports;
5. Economic & Business Sustainability Modelling Report; and
6. Interview Summary.

[1] For purposes of reporting, this project primarily focuses on small-scale food processors and producers (including farmers, fishers, beekeepers, and ranchers). As referenced throughout the report, "SMEs" are small to medium size enterprises and classified as those companies with no more than 50 employees (Small and Mid-size Enterprise (SME) Defined: Types Around the World). In contrast, "MNEs" are multinational enterprises with more than 50 employees and typically operating in more than one country (Multinational enterprises in Canada).

[2] https://www.gov.mb.ca/agriculture/markets-and-statistics/economic-analysis/pubs/economic-contribution-of-agrifood-processing-in-mb.pdf

photo by Karen Patterson

Common Terms

According to our Canadian Food Clusters and Food Hubs Environmental Scan, most Canadian jurisdictions have numerous food development centers, kitchens and food production facilities, food hubs of various sizes, as well as interconnected networks of agri-food commercialization and incubation spaces. These may or may not be formally organized as a "food cluster".

Food development clusters in Canada are generally research orientated and include universities, private and federal organizations and are co-located or exist in proximity to enhance collaborations and communications. They are focused on coordinating a critical mass of scientific expertise throughout the industry, academia, and government.

Food hubs focus more locally or regionally on supporting smaller food entrepreneurs and farmers through collective marketing, distribution, and direct outreach to consumers. Food hubs fill gaps in food systems infrastructure, such as transportation, product storage, and in some cases, product processing in the form of small-scale commercial kitchens. Both food clusters and food hubs are necessary to stimulate and support the growth and sustainable development of vibrant agri-food economies.

To best represent the broad activities of the organizations reviewed and the characteristics of the Manitoba agri-food sector, the FEP has also used the label of a **food-kitchen hub** to refer to food production spaces across Canada. A food-kitchen hub may be established as a non-profit organization, a for-profit business, or a cooperative.

A common characteristic of these models is that they often act as an incubator to support the growth and development of agri-food enterprises, with a focus on emerging farmers, start-ups, and SMEs.

Analysis

The Canadian Environmental Scan found that food clusters provide critical infrastructure and support to build adequate supply chain capacity for agri-food entrepreneurs locally and/or regionally. Generally, successful food clusters include several of the following actors:[3]

1. Stand-alone food development facilities or centres that focus on food and ingredient development and scale up (pilot scale and beyond).
2. University infrastructure to provide basic food science, ingredient development, nutrition fact tables (NFTs), and characterization (composition, texture, flavour, shelf-life, safety, etc.).
3. Culinary centres that meld food science with culinary arts in the development of initial recipes and formulations.[4]
4. Active food and beverage associations that offer networking, training, and support to a wide range of entrepreneurs and primary producers throughout the supply chain.
5. Mentorship and accelerator programs which are affiliated with, or part of the actual infrastructure dedicated to product development and subsequent commercialization.
6. Food hubs and cooperatives that help alleviate some of the burdens of sourcing from many small producers, and, over time, help build up the 'missing middle.'
7. Community-based organizations offering support and mentorship in rural and urban centres.
8. A strong network of support agencies which provide specialized services (sector-specific training, business development, funding, etc.) for the ongoing growth of the agri-food industry.[5]
9. Community kitchens, including food-kitchen hubs that, in general, offer ongoing access to private and shared food production facilities for SMEs unable to build or capitalize their own facility. Most include, at minimum, food preparation and cooking equipment and storage space.
10. Farmers' markets that connect consumers with farmers, artisans, fisheries, and local food processors.

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[3] New Nutrition Business. 2016. Functional Food Global Cluster Assessment.

[4] Natural Sciences and Engineering Research Council of Canada (NSERC) funded Technology Access Centres (TAC), a competitive process that, once approved offer grants to support innovative services and products, applied research and industry training. The cost of a client project is partially covered. Client cash can be leveraged to secure additional funding. Matching funds are as high as 10:90 (client to government). TACs for food culinary development established in Canada are Prairie Research Kitchen (Manitoba), Niagara College (Ontario) and Holland College (PEI).

[5] Example of B.C. provincial support for several urban/rural Food Hubs, or the Province of Manitoba's one-on-one business development specialists that offer support primarily to the missing middle.


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Manitoba Findings

The Manitoba agri-food sector, and in particular small farmers and food processors, are experiencing an incredibly difficult time due to the combination of the Covid-19 pandemic, climate change, international conflict, and increasing concentrations in the grocery-retail sector, leading to several agri-food business closures over 2022-23. Many producers and processors are struggling to scale or stay afloat due to thinning margins, leaving them at risk of shutting down in the next few years. Manitoba's relatively small population size can make it difficult to scale, and the lack of access to a CFIA regulated, shared facility or incubator space puts the entire burden on SMEs. There are currently very few pathways to support food SMEs from startup to scale-up to commercialization and consumer engagement and uptake.

Manitoba has not invested sufficiently in commercialization and scale-up capacity for agri-food SMEs compared to other regions. In British Columbia, for example, there is a formal network of food hubs developed in collaboration with government, industry, communities, and post-secondary institutions dedicated to building capacity for provincial food and beverage processing and production while also serving the regional and sector diversity of the province. To date, there are urban and rural food hubs in twelve communities in British Columbia. These hubs foster growth and innovation in the local processing sector through improved industry access to facilities, equipment, technology, technical services, and business support.

Other provinces have well-financed food development centres working with start-ups and SMEs. Examples include the Leduc Food Processing Development Centre and the Saskatchewan Food Centre. These facilities offer expertise in agri-food and process development, production and processing capacities, skills development, food safety education and training, quality assurance, technology transfer, and pathfinding. As described further in the Canadian Environmental Scan, Ontario, Quebec, and Atlantic Canada also strongly support local food processors and producers through food-kitchen hubs and food development clusters.

The result of this lack of investment is that Manitoba is rapidly falling behind other jurisdictions, as processors and producers are unable to develop and scale new products. A significant infrastructure gap ensures that the "missing middle" is an effect of structural and policy decisions that create ongoing barriers for agri-food SMEs. It will not disappear without a coordinated approach to invest in capacity building, infrastructure, and policy change.

What we Heard

Access to infrastructure and services such as shared storage, transportation, equipment for processing and packaging, distribution capacity, and commercialization needs such as marketing and sales is very limited and has created a bottleneck for innovation and commercialization. There are limited co-packing facilities available in Manitoba for SMEs, and most community kitchens are not set up for commercialization or scaling. This has created a chasm that is very challenging for SMEs looking to expand from farmers' market and small-scale retail, to wider retail distribution.

Manitoba needs to invest in alleviating the many challenges facing small producers and companies looking to scale, or that exist in the "missing middle". At the micro-scale it can be daunting, if not impossible, for SMEs to justify and secure investment into their own dedicated processing, production, or farming facilities. As a result, we are missing out on incredible opportunities to capture value and transform primary agricultural products into consumer packaged goods that can be consumed locally or exported nationally and internationally. Manitoba could become a leader in this industry as consumers, governments, and retailers continue to demand more local, sustainable, and ethically produced foods. Shared production facilities, pathfinding, and business mentorship services, as well as government guaranteed loans would be extremely beneficial for these SMEs. Without this, many entrepreneurs will produce and co-pack outside of the province, remain at the micro-scale, or simply decide to close down.

Availability of grant funding and business capital is a significant need for small agri-food entrepreneurs. There are problems with current programs, where funding typically favours mid-large entrepreneurs. The conditions of many grants, a lack of capacity to write the applications, short deadlines and turnaround times, stringent deliverables, and the need to match funding, prevent many SMEs from applying, which ultimately negatively affects company and sector growth. Access to small loans with reasonable pay-back terms, especially for those companies with existing debt, as well as availability of micro-grants of $1000-$10,000, would stimulate further growth of the sector.

An expansion of targeted business development, food health and safety training, and system navigation is needed. These services are meant to provide agri-food SMEs with the flexible capacity they need to mitigate risk during their vulnerable transition towards growing their business, which may include large purchases or opening a dedicated facility. Without this crucial support and infrastructure, a pathway for growth is simply unavailable for SMEs who do not have significant collateral or investment. Many farmers and entrepreneurs are forced to close their businesses or remain at the micro-scale, as they are not able to invest in additional hiring or facilities of their own.

Co-op models are promising in their ability to provide central, lower-risk locations for sharing resources. Fireweed Food Co-op and other similar models have been successful in facilitating marketing and collective purchasing of local provincial inputs but is not equipped to provide adequate storage (especially refrigerated coolers) and is struggling to support smaller producers who are making the leap from direct sales to wholesale, while also overseeing operational logistics and distribution. Investment in co-operatives and other non-profits can be an efficient way to provide capacity building at scale.

photo by Karen Patterson

Health and food safety regulations present a burden for agri-food entrepreneurs, especially related to obtaining permits and building relationships with provincial and federal inspectors. Whereas confusion exists regarding regulatory requirements, there is also inconsistency in the application of policies and guidelines. There is a lack of understanding about health inspectors' roles, confusion about where to find resources to support informed business decisions, and inconsistent flexibility provided. Many SMEs feel the health and safety policies in Manitoba favour larger companies who have more human and financial capacity to navigate certain regulations. Current requirements prevent success and innovation in some cases, while actively discouraging it in others. A common example cited is ungraded eggs being illegal to sell at farmers' markets, despite significant demand from consumers.

With inspectors having considerable power and discretion in the way regulations are applied, there have been instances of bias and discrimination. This increases barriers for SMEs owned and operated by racialized individuals, especially Black and Indigenous Peoples.

Commercial and production kitchens are critical to bridge the gap between home-based food production and scaling to meet small volumes required for farmers' markets, retail, and online sales. Many communities simply lack this critical infrastructure. Those that do operate often do not have key capacity such as storage and basic equipment. The province is in need of community kitchens that offer access at a reasonable cost and with flexibility, as well as more shared production kitchens.

Changes in the mandate of the Food Development Centre in Portage la Prairie have caused significant gaps in the provision of services required by agri-food entrepreneurs including food and ingredient development, business support, bottling, testing, labelling, Nutrition Fact Table (NFT) development, etc. Offering these services at organizations that can provide more ease of access and at more economical rates would be of great value to the sector. The FDC can continue to serve larger processors with more technical needs and a coordinated, hub and spoke approach would ensure that existing assets at the FDC could still be leveraged.

Industry-specific support such as mentorship opportunities and networking are valuable to agri-food entrepreneurs. Such activities lead to increased collaboration and industry knowledge about topics such as grant and loan opportunities to technical advice. Access to relevant and accurate information to build or grow operations is required. Building the agri-food sector means maintaining and expanding opportunities for rural-urban connections. Collaboration between farmers, SMEs and industry associations can play a key role, especially in growing the rural food and agriculture industry.

The challenges described are even more significant for Indigenous Peoples and newcomers. Many services and supports do not effectively assist marginalized groups. Suggestions were made to provide greater integration of traditional Indigenous Knowledge into the core design and mandate of programs.

Small scale farmers face many hurdles. It is becoming increasingly difficult to enter farming on a small scale as well as maintain and grow operations once established due to the high cost of land, equipment and overall support, especially financial. Abattoirs are very limited, especially for small livestock farmers. There is only one inspected chicken processor in the entire Province that will accept small orders.

Moving Forward

Manitoba is overdue for investment in a food production incubator-accelerator facility, and requires a stronger, more formalized network of agri-food commercialization and incubation spaces that can support the needs of the missing middle. Access to affordable production services that facilitate opportunities for collaboration and collective uses such as purchasing and storage are vital for the growth of the sector.

The FEP hopes to continue working alongside the agri-food industry to address these challenges by moving into Phase 2: co-designing accessible, flexible, adaptable infrastructure and services for agri-food SMEs looking to grow. We envision a centralized Food-Kitchen Hub connected to a series of smaller spokes throughout the province, bringing together entrepreneurs, artisans, growers, fishers, and ranchers. The Hub will be developed to provide shared production, storage, and receiving facilities. The Hub will offer pathfinding, mentorship and business development expertise to assist SMEs in navigating the unique product development, commercialization, marketing, regulatory and financing environments characteristic of the agri-food sector and support scaling to the point where SMEs can invest in their own facilities.

An Economic & Business Sustainability Modelling Report was completed through our research that scanned food-kitchen hubs across North America to help inform the operations, budgets, revenue and service offerings for a Manitoba food-kitchen hub and inter-connected provincial spokes. This report involved 8 primary interviews as well as an in-depth analysis of 10 research organizations and food-kitchen hubs. Recommendations from this report are summarized further below.

Funding requirements from government and agencies: Supporting the missing middle will take a public-private partnership approach that balances the needs of industry with the power of government to reduce barriers and stimulate growth through targeted programing and investments. The most successful food-kitchen hubs Nationally have well established networks of funders, partners in industry, and academia (research institutes, colleges, and universities). Most of the models leverage federal, regional, provincial, and municipal funding to secure their place in the community, region, and ecosystem.

Funding needs to be robust enough to establish a quality facility, with sufficient equipment, staffing, and resources to support clients, while also pursuing revenue generating activities that can support sustainability. However, it is clear that supporting the scale up of the missing middle will always require a public-private partnership, especially if the goal includes working with equity seeking groups, newcomers, Indigenous entrepreneurs, and SMEs who otherwise cannot achieve commercial scale without support. The goal must not only be sustainability, but resilience and equity.

Revenue, cashflow, profit & loss (rental-leasing arrangements): Models include a mix of rental and leasing arrangements, satisfied and trained clientele, and a service offering by the food-kitchen hub that is attractive for food entrepreneurs in the region.

Different models pursue revenue mixes reliant on rental arrangements and include a variety of services such as consulting services, cleaning, distribution-delivery, and marketing-branding. Well established food-kitchen hubs also work in a system of reciprocal referrals to other food-kitchen hubs in the region.

For revenue generation, several models emphasize the importance of volume in production lines, to ensure the most economic use of invested equipment, and this can be a determining factor for preference of clients that can produce in volume. Commissary Kitchen in British Columbia has also implemented an innovative revenue model of pay-per-use equipment in their shared HACCP facility.

Operating budgets-capital requirements: Many food-kitchen hubs operate under a language of 'net-zero' and 'cash positive' or breaking even. Several smaller Canadian food-kitchen hub models (2,000 – 8,000 sq. ft. facility) received their seed operating budgets from a major grant, and average annual budgets around the $150-175K, highly aware of the pressure to secure revenue streams from clientele in their region. However, larger facilities (8,000 – 15,000 + sq. ft. facility) have operating budgets closer to $700K to $1M. Models range in staff sizing, but an average is around 7-8 for the larger facilities.

Food sub-sector focus (and procurement): Different food-kitchen hubs pursue different areas of focus to distinguish their offerings and align with what is financially feasible. There is a tendency at some food-kitchen hubs across North America to exclude the production of meat, dairy, and alcohol as these categories require additional safety and regulatory approval, and certification by clientele.

Subject matter experts, technicians, network support: Well established food-kitchen hubs offer a range of services, and network support in addition to the use of kitchen-commercial space and storage. There may be food scientists, and food technicians to help entrepreneurs refine their products, and processes. In addition, helping clientele learn about, and navigate regulatory, food safety, operations, licensing, shipping and overcome other business challenges is highly beneficial. Partnerships with industry, research centres, and colleges increases the benefits of a facility and can support the creation of a true agri-food ecosystem.

Equipment needs and mix, floor space: There is a broad range of food-kitchen hub sizes of the models examined, from as small as a 400 sq. ft egg processing room, up to 65,000 sq. ft for the Leduc Food Processing Centre in Alberta, or the 67,000 sq. ft Hatchery facilities in Chicago. Most of the start-up incubator-accelerator models in Canada are in the 3,000 to 10,000 sq. ft range.

Different models also offer a broad range of equipment to support general food processing across a spectrum of applications towards more specialized functions. These offerings, in the best scenarios, have been determined from well-organized studies and assessments of need in the region, which justify the investment financially. Some models enhance their offering by having active partnerships with laboratories, food-kitchen hubs, or other food development facilities off-site.

Reasonable financial ROI (annual revenue-profit-cash positive) job creation and impact: The financial return-on-investment fluctuates significantly between the various for-profit and non-profit models examined across North America. Critically important to the tangible and non-tangible benefit and impact of food-kitchen hubs is the prospects for job creation, education, important skills development and training. Many of the models reviewed have made explicit efforts to focus on inclusiveness of BIPOC, women, and other marginalized people groups into their clientele attraction.

Conclusion

The existing food development ecosystem is largely concentrated in Winnipeg with Prairie Research Kitchen (RRC), Cereals Canada, U of M Dairy Plant, and the Richardson Centre for Functional Foods, which provide everything from product and recipe development services, access to world class research, and technical support for food and beverage processors that can afford the services. But when it comes to commercialization and business supports, navigating the system for very small, new or marginalized entrepreneurs, or accessing a production facility in a food safe environment for entrepreneurs looking to grow their business, many within Manitoba are left behind or move outside the province. They are overwhelmed by the options and underwhelmed by the physical infrastructure capable of serving them, and as long as this is the case, no amount of piecemeal funding will suffice. Not to mention, the additional challenges that come when entering the market for much smaller, rural, remote, or Northern entrepreneurs. Nothing of this sort exists in rural or northern Manitoba, suggesting a gap that prevents many entrepreneurs getting the services they need.

Manitoba needs someone to map and navigate the many complex components of our food system, while also strategically filling in gaps that we already know exist. They need a Hub for food and beverage processors connected to many different spokes, or smaller hubs, that can leverage (and not duplicate) what already exists in a way that meets the client where they are at and helps them move along at a pace they can maintain. The mobilization of hubs that are available to entrepreneurs beyond Winnipeg, into rural and northern Manitoba, is a critical component of this work. By tapping into the existing economic development ecosystem throughout the province and taking both a local and regional asset-based community development approach, we can create a series of interconnected food-kitchen hubs that bring together early-stage entrepreneurs, local artisans, growers, fishers, and ranchers, and create wrap-around services that can help those entrepreneurs navigate the unique regulatory and financing environments characteristic of this sector. We can provide access to costly equipment, business development expertise, storage facilities and processing capabilities that enable smart risk taking and innovation within a supportive environment.

In farming, soil is the foundation of all productivity. At least so it seems. In reality, it is the network of fungus, bacteria, and protozoa in the soil that connects the inert matter to create something that is alive. Every teaspoon of soil is a universe in itself, but it needs to be nurtured and stewarded to thrive. The soil in Manitoba is ready. What we need is a network, a series of filaments and interconnections, with strategic nodes, that can help ensure that the medium of growth has the nutrients required for the emergence of new businesses and better outcomes.

photo by Karen Patterson