MINNESOTA BUSINESS VITALITY COUNCIL

Industrial Hemp Processing Working Group

Final Report and Recommendations

June 29, 2020

MINNESOTA

Working Group Charge

The Minnesota Business Vitality Council identified industrial hemp processing as an opportunity for Minnesota and charged a working group with developing a set of recommendations on how to accelerate growth in this new industry.

Working Group Membership

Minnesota Department of Agriculture

Agricultural Utilization Research Institute

Minnesota Department of Employment and Economic Development

Minnesota Department of Commerce

Minnesota Department of Revenue

Minnesota Department of Education

Minnesota Department of Transportation

Background

Industrial hemp has been grown in Minnesota under a pilot program since 2016. During the 2019 growing season there were 350 licensed hemp growers growing hemp on 7,353 acres and 403,304 indoor square feet. There were 49 licensed hemp processors.

From 2018 to 2019, Minnesota saw a change in what varieties of hemp were being grown. In 2018, 88 percent of the hemp acres in the state were planted for production of hemp grain. In 2019, 74 percent of Minnesota hemp acres were being planted for production of cannabidiol (CBD). While CBD processing and sales have taken off, hemp grain and fiber processing are not coming online as quickly. There are currently no major hemp fiber processors in the Midwest. Processing of hemp grain is happening in Minnesota, but at a small scale.

Minnesota has the potential to be a leader in the industrial hemp industry. Minnesota farmers have shown they can grow hemp in all corners of the state. For the crop to be a viable option to diversify agricultural operations, new markets and processing capacity must be developed. Minnesota's proud culture of innovation and industry, especially in the agricultural and food space, is foundational to increasing production of hemp food processing and fiber manufacturing.

Potential for Grain and Fiber Processing in Minnesota

Much of what we know about the industrial hemp industry in Minnesota has been established by the Agricultural Utilization Research Institute (AURI) and can be found in their report *Building an Industrial Hemp Industry in Minnesota*.

Hemp Grain

Hemp seeds, hemp hearts, and hemp oil have been classified as Generally Recognized as Safe (GRAS) food products by the FDA and are on the market in the U.S. In Minnesota these products are currently being produced at a small scale. Many of the hemp food ingredients on the shelves in the U.S. are imported from Canada. Minnesota is well positioned with a thriving food business sector to replace a portion of that market with Minnesota-grown hemp.

Hemp Fiber

There are over 10,000 products that can be made with hemp fiber. Hemp hurd, the inner core of the hemp stalk, can be made into paper, construction materials, fuel, mulch, animal bedding, and more. The long and short fibers in the stem can be made into textiles, biocomposites, insulation, paper, rope or twine, and even supercapacitor batteries. These products have environmental benefits, often replacing plastics or other nonrenewable materials with a biobased, renewable alternative. The development of hemp fiber as an industry in Minnesota would give growers additional markets and would build opportunity for economic development of primary and secondary hemp processing business.

Barriers to Hemp Processing Expansion

Applied Research

Prior to 2015, industrial hemp had not been grown or processed in Minnesota in over 50 years. Much of the knowledge and craft of the industry has been lost. Reestablishment and growth will take investments in applied research in mechanical processing techniques, food science, and application of hemp materials into high value products. The University of Minnesota and AURI have begun work in this area, but investments in research will need to be accelerated to fill the many knowledge gaps in this emerging industry.

Banking, Insurance, and Financing

The deregulation of industrial hemp as an agricultural crop has led to many regulatory questions across sectors. Questions around legality arise when industrial hemp businesses seek banking, insurance, and financing options. While Minnesota has taken strides to clarify any requirements to working with a hemp business or grower, the industry is new and presents a lot of risk.

In addition, the financial capital needed to start up a processing business for fiber production is large. Processing equipment is expensive and is not even made in the U.S. at this time. A fully functioning fiber processing facility could cost above $5 million just in equipment to get started. The combined cost with the risk associated with a new industry makes it difficult for businesses to access capital from traditional sources.

Communications and Outreach

Industrial hemp is still very much associated with marijuana. There is a certain stigma that comes with growing and processing the crop. The benefits of this crop to our agricultural landscapes, rural communities, and environment need to be better communicated to overcome this narrative.



RECOMMENDATIONS

1 Invest in applied research and demonstration opportunities for processing

- Continue investing in the Minnesota Department of Agriculture feasibility studies grants and focus on funding hemp projects with a fiber or grain focus.
- Invest in a phase two research project for the Minnesota fiber processing value chain led by AURI to make information on decortication equipment and processes publicly available to the industry. Include conversations with hemp industry leaders and end users to better understand material specifications for various markets.
- Demonstrate the potential of hemp products by creating an internal market for use by state agencies. For example, the proposed LCCMR project being led by MNDOT and AURI for a demonstration project for erosion control mats made with hemp fiber to be processed at AURI's Waseca research station.
- Demonstrate fiber decortication, cleaning, separation, and classification technology solutions within the state to the public. For example, host demonstration days through AURI, private companies, or industrial hemp associations.

2 Sponsor and coordinate an industrial hemp processing conference

- Coordinate an event to hold an industry-wide discussion on the potential of industrial hemp processing with invitations to thought leaders in the hemp processing space both in and outside of Minnesota.
- Based on conversations at the event, explore establishing a group of industrial hemp processing thought leaders to inform policies at the state level.

3 Coordinate Minnesota's financial assistance and regulatory programs

- Create a resource for hemp grain and fiber processing similar to the Starting a Food Business Road Map to help hemp processing businesses navigate state assistance programs and the regulatory requirements to starting a hemp processing business.
- Prioritize industrial hemp processing projects throughout DEED and MDA loan and grant programs.

4 Develop a plan for coordinated communication and outreach about the industrial hemp industry

- Utilize the annual Minnesota Hemp Conference and seek out other relevant national or international conferences and tradeshows to promote Minnesota as a state to invest in this space.
- Develop messaging for Walz Administration to promote use of industrial hemp products including:
  - Agricultural crop diversity
  - Rural economic growth and job opportunities
  - Renewable product development
  - Carbon sequestration and climate change
- Coordinate efforts and partner with tribal governments interested in industrial hemp farming and processing.
- Reach out to existing Minnesota food companies and composite companies to promote use of hemp products.
- Include industrial hemp in agricultural education curriculum.

5 Continue communication with the banking industry about the risks surrounding this new industry

- Distribute technical guidance to banks about industrial hemp processing.
- Continue ongoing open dialogue between Department of Commerce and organizations representing banks across Minnesota.
- Distribute any economic analysis or feasibility studies to banking industry once finalized.

Appendix

Attached are relevant resources that have been used to inform this process or were developed as a result of this process:

- Why Industrial Hemp for Minnesota?
- Resources for Hemp Processors in Minnesota
- AURI Hemp Fiber Value Chain
- AURI Hemp in Food Value Chain
- Food Business Road Map
- Financial Institution Hemp Guidance

WHY INDUSTRIAL HEMP FOR MINNESOTA?

MINNESOTA

History

Traditionally, the hemp plant was cultivated for its fiber and has been used from early history for rope, paper, oilseed, and cloth. The hemp plant arrived in North America in the early 1600s. U.S. industrial hemp cultivation began to decline as cotton and tobacco cultivation rose and was banned due to its link to marijuana. Industrial hemp varieties are genetically distinct from marijuana varieties and are bred for fiber, seed, and low THC production.

In the U.S. the legal status of hemp changed in 2014, beginning with state pilot programs and officially being deemed an agricultural crop in 2018. In Minnesota industrial hemp is grown for seed, fiber and cannabidiols (CBDs).

Hemp Qualities

Physical Properties: high tensile strength, lightweight and breathable, durable and recyclable, insulative

Nutritional Value: high in Omega-6 & Omega-3 fatty acids, Vitamin E, micro-nutrients, fiber and protein

Industrial Hemp Plant Uses

Stalk: fabric, clothing, handbags and shoes; rope, nets, carpet and tarps; paper, biomat, biofuel, and building materials

Leaves: mulch, compost and animal bedding; insulation, cement and fiberboard

Flowers: oils, distillates and food supplements

Seeds: seed and seedcake for food, birdseed, and protein powder; cosmetics and personal care products; solvents, paints and varnish, bioplastics, inks, solvents, lubricants and coatings; and , and animal feed (not currently legal)

Environmental Benefits

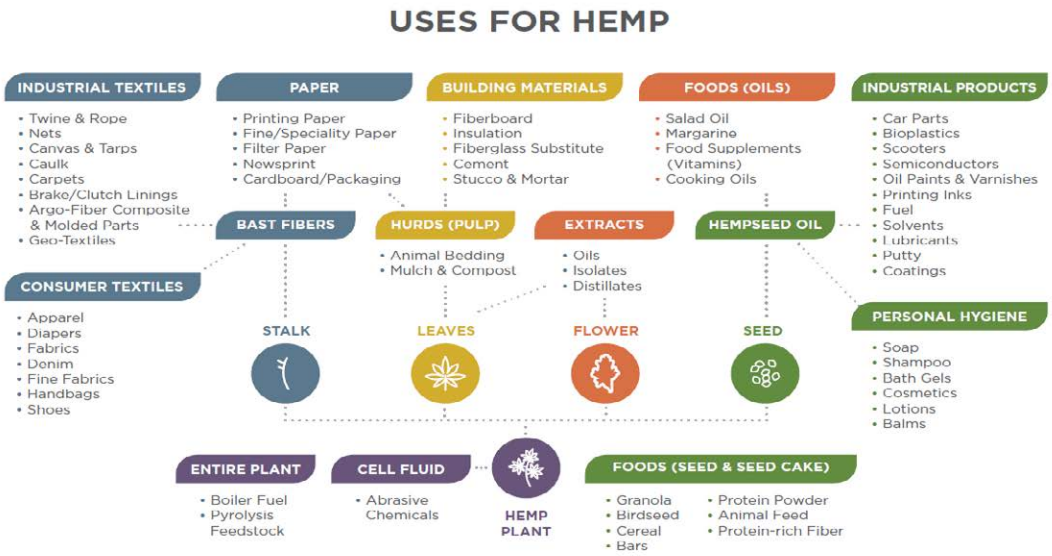
- Reduced soil depletion in comparison with many other crops so minimal fertilization requirements
- Deep rooting system that provides soil aeration and fertilization
- Biodiversity friendly crop
- Naturally disease resistant so grown with little use of herbicides and pesticides
- More efficient and less taxing on the environment relative to other crops; producing more fiber over time with greater durability and recyclability as well as being light weight and breathable.

Economics

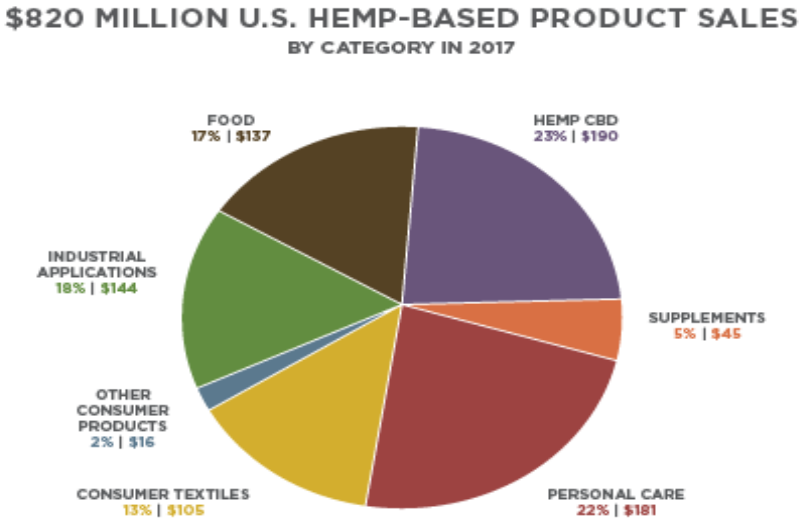
- Over 25,000 hemp products on the global market
- According to Hemp Biz Journal, there were $820 million in total sales of hemp products in the U.S. in 2017. (There is no official estimates of U.S. retail sales available.)
- In 2017, the U.S. imported $67.3 million of hemp seed and fiber for use largely in manufacturing with Canada supplying 90% by value of the imports.
- U.S. market potential is unknown but estimated to approach $2 billion by 2022.
- Researchers across the country have estimated that gross value per acre ranges from $12,500 to $21,000 for hemp stalk and hemp seed production, respectively.
- Market development for hemp products is a challenge but rising consumer health and wellness demand, the wide range of hemp products being developed, supply chain and food industry knowledge, and agricultural base in Minnesota make expansion of the production of hemp and hemp products promising for our State.

Hemp Industry Needs

- Technological Advancement for Hemp Farming and Processing
- Agronomic Information
- Traceable, Transparent Supply Chain to Ensure Quality and Marketability
- Crop insurance
- Market Development and Support
- Access to Capital



Source: "The State of Hemp: 2014-2022," New Frontier Data derived from Hemp Business Journal[1]



Source: "The State of Hemp: 2014-2022," New Frontier Data derived from Hemp Business Journal[1]

RESOURCES FOR HEMP PROCESSORS IN MINNESOTA

MINNESOTA

Minnesota Department of Employment and Economic Development

Minnesota Investment Fund (MIF)

The Minnesota Investment Fund provides financing to help add new workers and retain high-quality jobs on a statewide basis. The focus is on industrial, manufacturing, and technology-related industries to increase the local and state tax base and improve economic vitality statewide.

Minnesota Job Creation Fund (JCF)

The Job Creation Fund provides financial incentives to new and expanding businesses that meet certain job creation and capital investment targets. Companies deemed eligible to participate may receive up to $1 million for creating or retaining high-paying jobs and for constructing or renovating facilities or making other property improvements. In some cases, companies may receive awards of up to $2 million

Angel Tax Credit

Minnesota's Angel Tax Credit provides a 25-percent credit to investors or investment funds that make equity investments in startup companies focused on high technology, new proprietary technology, or a new proprietary product, process or service in specified fields. The maximum credit is $125,000 per person, per year ($250,000 if filing jointly). The credit is refundable. Residents of other states and foreign countries are eligible. View our Fact Sheet.

Angel Loan Fund

The program provided a direct loan for 10 percent of the total amount of equity investment received in the business' approved funding round. Only one loan may be issued to each business for the duration of the ALF. At least one equity investment must be made by an investor that is both certified by the MN Angel Tax Credit Program (or could have been certified) and qualified as an Accredited Investor per the U.S. Securities and Exchange Commission under Rule 501 of Regulation D. However, the total equity investment attained for the round is not exclusive to investments made to meet the requirements of the Angel Tax Credit Program.

Emerging Entrepreneur Loan Program

The Emerging Entrepreneur Loan Program provides loan capital for businesses that are owned and operated by minorities, low-income persons, women, veterans and/or persons with disabilities.

Minnesota Job Training Programs including MJSP & JTIP

The Minnesota Jobs Skills Partnership (MJSP) works with businesses, educational institutions and nonprofit organizations to train or retrain workers, expand work opportunities and keep high-quality jobs in the state. The goal is to target short-term training for full-time employment in the growth sectors of the state's economy.We offer grants through a variety of programs to offset training-related expenses incurred by business, industry, nonprofit organizations and educational institutions to meet current and future workforce needs.

Business Development Public Infrastructure Grant Program (BDPI)

The Greater Minnesota Business Development Infrastructure Grant Program helps stimulate new economic development, create new jobs and retains existing jobs through investments in public infrastructure. It provides grants to cities of up to 50 percent of the capital costs of the public infrastructure necessary to expand or retain jobs in the area, increase the tax base, or expand or create new economic development.

Minnesota Department of Agriculture

Crop Research Grant

AGRI Crop Research Grants are intended to generate applied crop research that will improve agricultural product quality, quantity, or value.

Value Added Ag Grant

The AGRI Value-Added Grant helps Minnesota processors add value to Minnesota agricultural products by helping underwrite feasibility studies and the purchase of equipment. Individuals, farmers, businesses, agricultural cooperatives, or local government entities are eligible to apply. You must explain how your project will increase the sales of Minnesota agricultural products and/or increase market access. The program aims to fund projects that impact many farmers.

Sustainable Ag Demonstration Grant

This grant supports innovative on-farm research and demonstrations. It funds projects that explore sustainable agriculture practices and systems that could make farming more profitable, resource efficient, and personally satisfying. Findings are published in the Minnesota Department of Agriculture's annual *Greenbook*. Applications from Minnesota farmers receive priority, but the program also funds Minnesota nonprofits and educational organizations that meaningfully involve Minnesota farmers in projects. Projects must last two to three years and grantees must be willing to share what they learn with others.

Minnesota Department of Revenue

Businesses

We offer information and resources to help businesses:

- File and pay Minnesota taxes and fees
- Get a Minnesota Tax ID Number
- Calculate sales tax rates
- Manage tax accounts and business information
- Learn about other business taxes and fees

Online Business Tax Registration

You can apply for a MN tax ID online quickly and easily. After applying you'll receive a confirmation email with your MN tax ID within minutes.

e-Services Information

Minnesota e-Services is our online filing and paying system for businesses. You can file returns, make payments, communicate with us, and view account information for many state taxes.

- To log in or sign up, go to the e-Services login page.
- To see which tax accounts can be filed, paid or viewed in e-Services, go to the Accounts Available page.

Angel Investment Tax Credit

The Angel Investment Tax Credit is a refundable income tax credit meant to encourage investment in small businesses located primarily in Minnesota and in certain industries. The credit allows you to claim a refund even if you do not owe tax.

AT A GLANCE

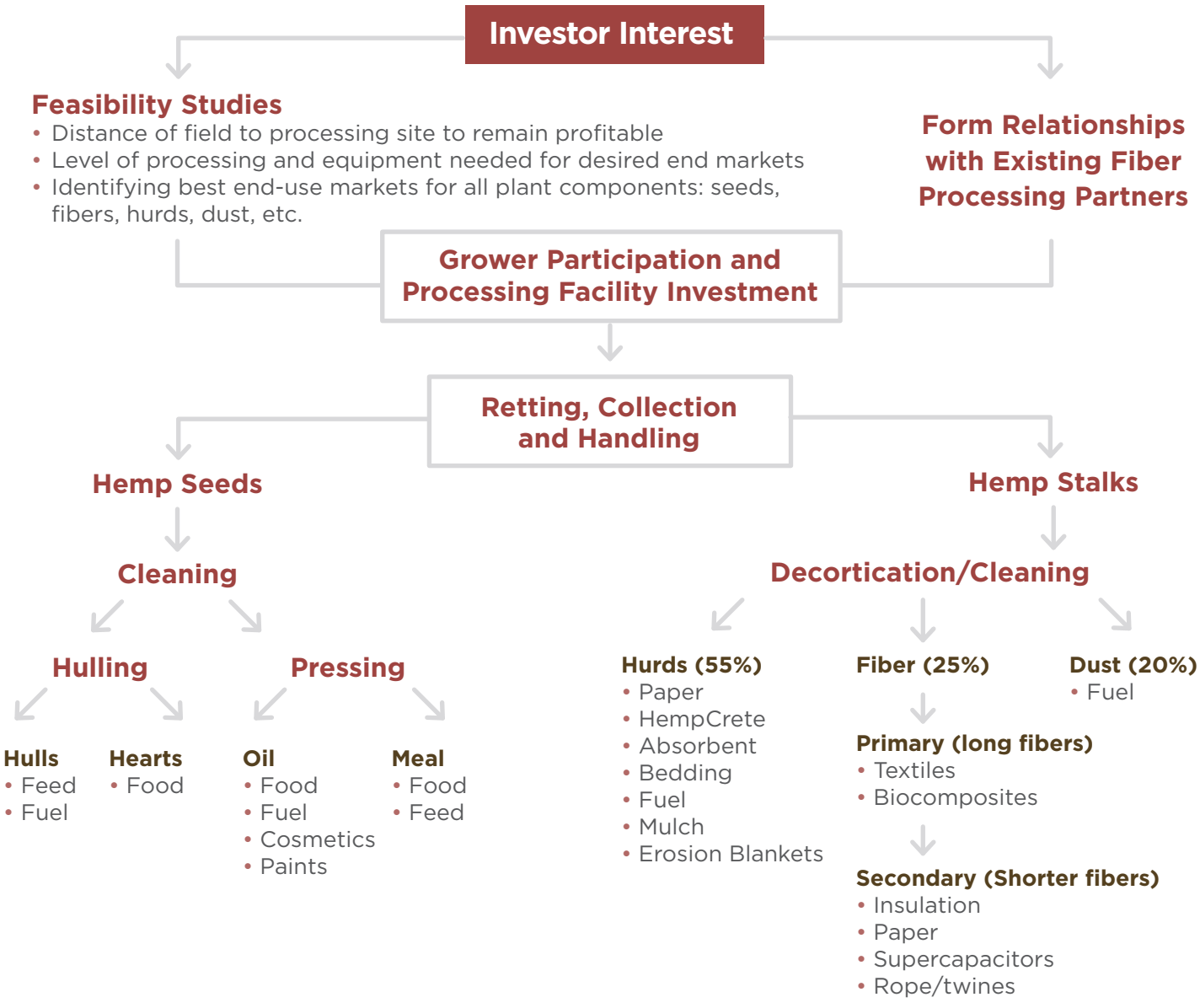
auri

Hemp Fiber Value Chain

Forecasted Projections for Minnesota

OPPORTUNITY FOR HEMP FIBER

One of AURI's core objectives is to find new, reliable, biobased products. Hemp fiber's low weight and high tensile strength can provide increased performance in products including composites, textiles, insulations and more. Hemp hurd is the inner core of the hemp stalk and can be likened to an absorbent wood chip after processing. It can serve as a substitute or additive in building materials, composites, paper pulp, animal bedding and more. Additionally, hemp fiber and hurd are biobased materials which can improve performance when utilized in new and existing products. These raw materials come from the hemp stalk, where the bast fiber length and quality depend on the variety of hemp grown and processing method. Long fiber stalks can yield fibers for textiles and high-quality bio-composites, while the shorter fibers are better suited for insulations, paper, supercapacitors and lower quality bio-composites.



FIBER

Hurdles
- Lack of processing
- Feasibility studies on market potential
- Product development research for hemp fiber inclusions
- Lack of weed control in hemp fiber variety crops

Forecasted Market Potential
The market potential of hemp fiber remains unknown. End-user market assessments are currently underway and will set a path for fiber processing infrastructure. Minnesota is well suited to be a market player in this sector.

Existing Infrastructure
Hemp hurds and fibers are unique raw materials that have hundreds of potential applications. Many existing businesses and industries in the state could benefit from the use of these biobased materials as alternatives to their existing materials.
- Window companies
- Cabinet manufacturers
- Composite manufacturers
- Building companies
- Fiber in concrete applications
- Hurd and fiber in insulations
- Textile manufacturers
- Automobile companies

Product Opportunities
- Textiles (fiber)
- Bio-composites – automobiles, furniture, panels, etc. (fiber)
- Rope/Twine (fiber)
- Supercapacitors (carbon-based hemp fiber nanosheets)
- Batt Insulation (fiber)
- Animal Bedding (hurd)
- HempCrete Insulation (hurd)
- Fuel (hurd)
- Mulch (hurd)
- Paper (hurd/fiber)
- Erosion Blankets (hurd)

AURI Involvement
- Coproducts facility in Waseca is a unique value-added facility in the Midwest.
- Coproducts lab is uniquely positioned to aid in product development involving hemp fibers or hurds.
- Capabilities include but are not limited to:
  - Pelleting
  - Milling
  - Aspiration
  - Mechanical separating
  - Mechanical and thermal dewatering
  - Cold oil pressing and filtration
  - Blending/mixing ingredients
  - Bedding development/ammonia testing
- The coproducts lab also plans to house decortication equipment in the future to do R&D work on the fiber from retting to utilization.
- Reach out to Harold Stanislawski, Al Doering or Riley Gordon at AURI to learn more about how AURI can help move your hemp fiber or hurd idea forward.

Sources:
Fiber *– A modified graphic from: North Dakota StateCite Source: Industrial Hemp as an Alternative Crop in North Dakota, NDSU, 1998*
Feed (Table 1) *– Crude Protein/TDN of Corn: www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/400/400-230/400-230_pdf.pdf*
Crude Protein/TDN of Alfalfa Hay *- www.uaex.edu/publications/pdf/FSA-4000.pdf*
Crude Protein/TDN of SBM *- www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/400/400-011/400-011_pdf.pdf*

AT A GLANCE

Hemp in Food Value Chain

Forecasted Projections for Minnesota

HEMP AS A FOOD PRODUCT

Hemp-derived ingredients such as seeds, hearts (the shelled seeds of the industrial hemp plant) and oils are appearing with more frequency in global food markets, including Europe and North America. In conjunction with the signing of the U.S. Farm Bill, former Food and Drug Administration (FDA) Commissioner Scott Gottlieb stated the classification of these three ingredients is "Generally Recognized as Safe" (GRAS) as food products, or for use in food products. This means additional approvals are not required if marketers do not make health claims. A fourth hemp-derived ingredient, cannabidiol (CBD), is gaining popularity as a wellness product and food ingredient, though the FDA has clearly communicated that CBD is not legal for use in food and beverage product as of mid-2019.

Opportunities

Hemp protein is a non-allergenic, plant-based protein. There will be a potential opportunity to blend hemp protein with other non-allergenic plant based proteins.

Hemp derived ingredients like seeds, hemp hearts, and oil are the most common forms of hemp found in food. The United States imports hemp products primarily from Canada. As such, U.S. companies are beginning to work with hemp as a processed food ingredient given the public interest.

Because of hemp's relatively high protein content (25%), it is a viable alternative to other high protein, emerging plant-based sources. Hemp protein concentrates and isolates are available and can fortify products, such as bars or cereal. Another possibility is hemp-based protein beverages, though the solubility of the protein may limit the amount incorporated.
Dietary fiber supplementation in snack products is another opportunity for hemp. The seed contains both soluble and insoluble fiber making it a good option for fiber fortification.

Finally, hemp oil presents an opportunity to take advantage of the nutritional benefits of the plant. The fatty acid profile of the oil is 80 percent polyunsaturated, including the essential Omega 6 and Omega 3 fatty acids.

Hemp ingredients could also represent a unique opportunity in the craft brewing industry. Brewers could utilize the flour or hemp hearts in the mash or add the terpenes as a flavor or aroma compound.

Hurdles

Hurdles to the use of hemp-based ingredients include functionality shortfalls, market competition from a multitude of other plant protein options, lack of food grade processing capabilities, and lack of local sourcing for the raw ingredients. Regarding functionality, limited research has resulted in unfavorable comparisons to other, more established plant-based proteins. However, additional research into processing methods combined with breeding and genetic efforts, such as those at the University of Minnesota Plant Protein Innovation Center, should improve the understanding of hemp's perceived shortcomings and result in higher usage in food products as these challenges are overcome.

With the introduction of the Minnesota Department of Agriculture's Hemp Pilot Program in 2016, Minnesota has seen a steady increase in the total acreage of industrial hemp. While the total acreage has increased over the past three years, the processing capabilities required to transform the raw agricultural commodity into viable food ingredients have lagged. This lack of viable food grade processing, along with the limited acreage of hemp, has led to the need for importing the majority of food grade hemp ingredients from either Canada or the European Union.

Hemp Food Landscape - Market Overview

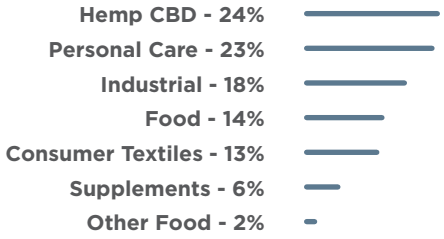


Figure 1
US Hemp-based Product Sales in 2017 ($795 mil)
Source: Hemp Business Journal

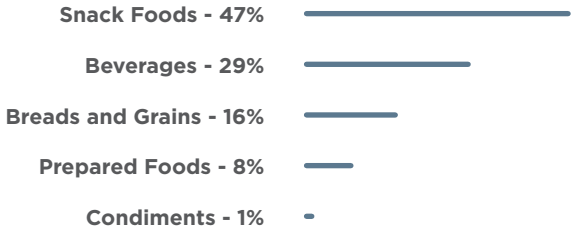


Figure 2
US Hemp-based Food Sales in 2017 ($112 mil)
Source: Hemp Business Journal

Hurdles

- Hemp protein functionality limited vs other plant proteins
- Market-relevant differentiation from other plant proteins
- Lack of processing for food grade hemp ingredients
- Competition from well-established international supply chains

Product Opportunities

- Hemp protein beverages
- Hemp-based milk replacements
- Hemp protein concentrate and isolates
- Hemp protein blends
- Hemp protein bars
- Hemp as a fiber source
- Hemp oils
- Hemp flour
- Hemp as a brewing or distilling ingredient
- Non-GMO ingredients

Existing Infrastructure

Minnesota is a hub for food companies and processors. With the steady growth of Minnesota hemp acreage, expectations are that investment in food grade hemp processing will also increase. Processing capability investment opportunities include:

- Seed defatting (cold-press and chemical extraction)
- Protein concentration (concentrates and isolates)
- Protein functionalization
- Flour milling
- Fiber processing

FOOD

Forecasted Market Potential

There appears to be a strong path forward for hemp oils and proteins in the food market. More regulatory and science-based information is necessary to understand the true market of food products containing CBD. Minnesota is well suited to be a market player in the hemp food sector.

AURI Involvement

AURI expertise:

- Shelf life and packaging guidance
- Regulatory compliance
- Chemical analysis
- Nutrition labeling
- Product development guidance and troubleshooting

AURI can assist clients interested in hemp-based foods to commercialize their products. Our scientists use analytical and food labs to aid companies with nutrition labels, optimize protein powders, analyze cold pressed oils for essential fatty acid content, and provide food product development guidance.

Reach out to AURI to learn more about how AURI can help move your hemp food idea forward!

Starting a Food Business Roadmap

DEPARTMENT OF AGRICULTURE

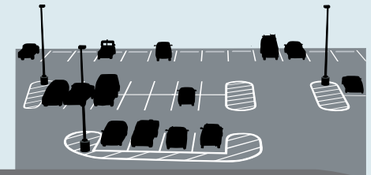
START HERE

Are you interested in starting your own food business? This map is a great place to start! Even though the *Roadmap* is designed to look like a step-by-step guide, keep in mind this process is not linear, and you can expect to revisit stops throughout your journey. This list provides many resources that you might find helpful, but is not intended to be an exhaustive list. Review all of the stops on the *Roadmap* before starting your food business.

Driver's Ed: Learn the Basics

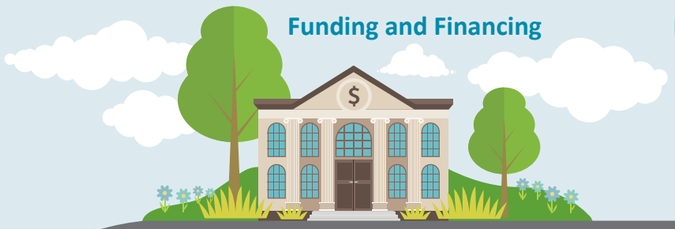
- Establish a support system.
- Research the basics of financing and resources available to you.
- Consider other aspects of commercialization.

Business Planning Parking Lot



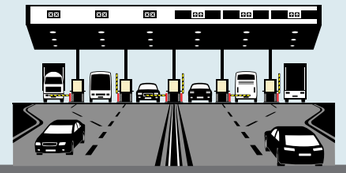
- Complete a cost analysis.
- Conduct market research to define your target market.
  - » What is your product?
  - » Where do you want to sell it?
  - » What makes your product unique?

Funding and Financing



- Meet with your banker to discuss financing.
- Research other grant and loan opportunities.

Food Safety Regulations and Information



- Learn about food safety regulations, limitations, and necessary training related to your business.
- Make a food risk management strategy (HACCP, allergens, etc.).
- Create a Food Safety Plan and Recall Plan.

Plan for Production

- Decide where you will produce your product.
- Find where and how you will source ingredients, equipment, and other supplies.
- Think about ways to use local ingredients.

Food Licensing Round-About

Knowing what licensing you will need can be a confusing process. Depending on your food business, you may require training and/or licensing from MDH, MDA, and/or federal and local delegated agencies.

- Most food products that are served and eaten on site (for instance, food trucks, restaurants, caterers) require a license from MDH.
- Most retail and manufactured food products require a license from the MDA.
- Some types of food businesses may require licensing or training from federal agencies or local delegated agencies.

Additional Resources

- Identify other resources to help you start your food business.

Scanning the Horizon

- Meet with your inspector.
- Review your business and food safety plans regularly.
- Decide if and how you will scale your business.

Last Updated: 6/26/19

https://www.mda.state.mn.us/foodbusinessroadmap

COMMERCE DEPARTMENT

April 5, 2019

Greetings,

The 2018 Federal Farm Bill (FFB) changed the legal status of hemp products. Some of the changes within the FFB will take time to enact while certain changes to regulatory requirements are more immediate. The purpose of this letter is to provide clarity on the banking of hemp-related businesses in Minnesota, including Minnesota State Chartered Banks and Credit Unions. This letter does not provide guidance related to the banking of marijuana or cannabinoid related businesses.

Background

Federal law defines hemp as "the plant Cannabis sativa L. and any part of that plant, including the seeds thereof and all derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers, whether growing or not, with a delta-9 tetrahydrocannabinol (THC) concentration of not more than 0.3 percent on a dry weight basis."

Minnesota has been operating a hemp pilot program since 2016. Under the pilot program, participants are licensed to grow, process, and market hemp. The program requires that, within 30 days of harvest, each hemp field is inspected and sampled by the State to determine THC compliance. If the sample passes inspection, the grower is issued a "Fit for Commerce Certificate," and may sell their crop on the open market. If the sample fails, the grower may request one additional sample test at the grower's own expense. If the grower declines the additional testing or the sample fails the second test, then the grower must destroy their field.

Prior to the 2018 FFB, hemp was a controlled substance at the federal level. This created challenges in providing banking services to hemp-related businesses. The FFB included several changes to the regulation of hemp:

1) Removed hemp from Schedule 1 of the Controlled Substances Act,
2) Allowed states with existing hemp pilot programs to continue operations, and
3) Established the groundwork for states to adopt commercial hemp programs upon approval from the federal government.

Minnesota's pilot program remains operational, and the Minnesota Department of Agriculture is in the process of working with the federal government to implement a commercial hemp program. The Minnesota Department of Agriculture anticipates transitioning from the pilot program to a commercial hemp program in 2020.

Regulatory Environment
Prior to the 2018 FFB, the primary regulatory hurdle to banking a hemp-related business was hemp's status as a Schedule 1 substance under the Controlled Substances Act. Hemp's removal from Schedule 1 lessens the regulatory burden on banks and credit unions interacting with hemp-related businesses. Additionally, the State's hemp pilot program and the anticipated commercial program outline a framework to help hemp-related businesses achieve compliance with state law. An affiliation to hemp will no longer automatically require suspicious activity reporting. However, nothing in the 2018 FFB, Minnesota's hemp programs, or this letter alleviates a bank or credit union's responsibility to assess the legality of customers and transactions, or report identified suspicious activity, as established by current regulations.

Risk Management
Whether or not a financial institution interacts with a complex industry is effectively a risk management decision. While the legality of a product is obviously a significant factor, it is not the only risk to consider. Financial institutions considering whether to bank hemp-related businesses should be confident in their ability to assess the risk of agriculture operations of similar size and business models. Financial institutions should also understand licensure requirements in the state, including the potential destruction of non-compliant crops.

Sincerely,

Steve Kelley
Commissioner