

MN FOOD SAFETY AND DEFENSE TASK FORCE
Meeting Minutes
November 12, 2019

Today's meeting was held in Room B107, Orville L. Freeman Building, 625 Robert Street North St. Paul

Ruth Petran called the meeting to order at 1:35 PM.

Members present included: Courtney Bidney, Ruth Petran, Chris Gindorff, Lorrene (Lolly) Occhino, Annalisa Hultberg, Jaime Kirpatrick, Benjamin Warren, Caldoun Abuhakel and Brent Kobielush.

Visitors present included: Joe Jurusik, Carrie Rigdon, Karly Ackerman, Heidi DeBeck, Joe Scimeca, Neal Fredrickson, Jennifer van de Ligt, Jeff Luedeman, Kim Carlton, Erin Smilanich, Cindy Weckwerth, Saddle Gannett, Michael Selby, Dan Weber, Heidi Debeck, Chris van Twuyver, Jane Jewett, Mathew Gerths, Alida Sorenson, Heidi Varberg, Katherine Simon, Valerie Gamble, Natasha Hedin, Jason Robinson, Shaun Kennedy, Morrine Omolo, Cheryl Eia, Julia Selleys, Kathy Zeman, Collin Kappenman (via WebEx), Brian Elliot (via WebEx), Allision Behling (via WebEx), Todd Whalen (via WebEx), Dave Reed (via WebEx) and Purnendu Vasavada (via WebEx).

1. Dates and links

The next Food Safety and Defense Task Force (FSDTF) Meeting will be Tuesday, January 7th, 2019, Location: St. Paul Capitol Complex, Room: B144, 1:30 pm – 4:30 pm.

- Food Safety Partnership September Training:
<https://www.youtube.com/watch?v=I4FZ1jIOMNU&feature=youtu.be>
- National Environmental Health Association (NEHA) Materials:
<https://www.neha.org/eh-topics/food-safety-0/cannabis-resources>
- NEHA Policy Statement: Food Safety as Related to the Consumption of Cannabis-Infused Products:
<https://www.neha.org/node/60009>
- Food Safety Guidance on Cannabis In-fused Products:
<https://www.neha.org/sites/default/files/eh-topics/food-safety/Food-Safety-Guidance-Cannabis-Infused-Products-Sept2019.pdf>
- Cannabis 101 Glossary of Terms:
<https://www.neha.org/sites/default/files/eh-topics/food-safety/Cannabis-101-Glossary-Related-Terms-Updated.pdf>
- What You Need to Know (And What We're Working to Find Out) About Products Containing Cannabis or Cannabis-derived Compounds, Including CBD:
<https://www.fda.gov/consumers/consumer-updates/what-you-need-know-and-what-were-working-find-out-about-products-containing-cannabis-or-cannabis>
- FDA Regulation of Cannabis and Cannabis-Derived Products, Including Cannabidiol (CBD):
<https://www.fda.gov/news-events/public-health-focus/fda-regulation-cannabis-and-cannabis-derived-products-including-cannabidiol-cbd>
- Building an Industrial Hemp Industry In Minnesota:
<https://www.auri.org/research-reports/hemp/>

- Farm and Ranch Planner:
<https://www.farmandranchplanner.com/my/login/index.cfm>

2. The minutes from the September 2019 meeting were approved.

3. Member and Visitor Updates:

Joe Jurusik (Hennepin County Public Health): Joe mentioned that CBD oil is a hot topic for them right now. They are also dealing with the complication of a new app called Swimply. It is basically a VRBO of swimming pools, which is not allowed by the Minnesota Pool Code. The code identifies specific regulations regarding public pools that most private homes do not have.

Carrie Rigdon (Minnesota Department of Agriculture (MDA)): Carrie announced that the 2nd Annual Cottage Food Producers Conference is coming up this January. She brought flyers with more details for those that are interested. The flyers were mailed out to 3969 registered Cottage Food Producers with their renewals. Carrie also mentioned that she serves as the affiliate delegate for the MN Food Protection Association which is a MN Chapter of the International Association for Food Protection (IAFP). They will holding a meeting at 5:30 pm tonight at the U of M St. Paul Campus.

Jennifer van de Ligt (Food Protection and Defense Institute (FPDI)): Jennifer mentioned that she has just returned from being on the road for six weeks out delivering Intentional Adulteration (IA) rule training.

Michael Selby (Lund Food Holdings, Inc): Michael is a product development manager, and this is his first MNFSDTF meeting.

Chris Gindorff (Lund Food Holdings, Inc): Chris mentioned that he sits on the Food Safety Partnership (FSP) Steering Committee and that the committee is looking for ideas for their upcoming training in March. If you have topics, you'd like the group to consider, please pass them onto the FSP Steering Committee. If anyone from industry is looking to help and assist with the Food Code Advisory Committee, please contact Linda Prail with Minnesota Department of Health (MDH). Lastly there are some mentees at the U of M that were not paired up with mentors. If you are interested in being a mentor please reach out to Chris.

Sadie Gannett (Minnesota Department of Health (MDH)): Sadie is sitting in for her supervisor, Susan Bishop. This is her first MNFSDTF meeting.

Annalisa Hultberg (University of Minnesota Extension): Annalisa mentioned that the U of M Extension has been busy coordinating with the MDA's Produce Safety Program setting up Produce Safety Rule Trainings. They have eleven trainings scheduled from early December through April. This year they are planning one training for an Amish community, which will be interesting as they won't be using any technology. MDA's Produce Safety Program is also planning at least one Hmong and one Spanish training.

Brent Kobielush (Cargill): Brent mentioned that he recently attended a Joint Institute for Food Safety and Applied Nutrition meeting through the University of Maryland at which the United States Food and Drug Administration (USFDA) spoke. The USFDA announced that they are ramping up a program looking at heavy metals in the food supply, in which they are trying to ascertain where

these levels are in a variety of foods. They made the comment that they strongly believe there is no safe level for lead in food, which is very interesting as it's known there is lead in certain products. as There was additional discussion on genome sequencing and utilizing in vitro toxicology to evaluate novel and current ingredients.

Joe Scimeca (Cargill): Joe mentioned there is a Center for Research on Ingredient Safety through the University of Michigan. They will be having their annual meeting later this week. If you can't attend, the meeting you can contact the center and get added to their newsletter or follow them on social media.

Dan Weber (Metro Produce Distributors): Dan is a first-time attendee of the Task Force meeting.

Matt Gerths (MDA): Matt is the new Commercial Feed Program Manager within the Food and Feed Safety Division of the MDA. He has taken over for recently retired, Doug Lueders.

Jane Jewett (Minnesota Institute for Sustainable Agriculture (MISA): Jane mentioned that she has been very busy attending conferences this past month. The Women in Sustainable Agriculture Conference was this past October. It went very well, presentations on cottage food and on farm food service. She also attended the Nation Farm Viability conference in Red Wing in late October.

Morrine Omolo (PHD student at the U of M): Morrine is a first-time attendee of the Task Force meeting. Jane Jewett recommended that she attend as her research overlaps with discussions that take place during Task Force Meetings.

Karly Ackerman (Minnesota Grocers Association (MGA): Karly mentioned that they are working with Hennepin County on their organic waste recycling grant and also working with federal partners regarding CBD.

Kim Carlton (MDH): Kim mentioned that the FSP September meeting is now available on YouTube. She will provide the link to share in the meeting minutes.

Erin Smilanich (MDA): Erin is the new Rapid Response Coordinator for the Food and Feed Safety Division within the MDA. This is her first Task Force meeting.

Jason Robinson (Agriculture Utilization Research Institute (AURI): AURI is a small, mostly state funded non-profit focused on supporting value-added ag businesses. They recently kicked off a new project with Region 9 Economic and Development Commission on providing support to small and scaling business with finding the right manufacturer for their products. How do you support from a food safety point of view? Meant to answer the question of "how do food businesses survive as they start to scale?".

Courtney Bidney (General Mills): Courtney recently attended a board meeting for the Association of Food and Drug Officials last week. She mentioned that the group is working on a recall project, trying to harmonize procedures and organize recall best practices. Hopefully the group should be able to report out in the coming months. It may be a good idea to consider having them present remotely for a future Task Force meeting. Courtney also mentioned that FDA held a public meeting on smarter food safety and there are very informative materials available on FDA's website. There should be a document coming out for comment early 2020.

Shaun Kennedy (Food Systems Institute/U of M): Shaun echoed Courtney on checking out the smarter food safety materials available on FDA's website. He also mentioned that they worked with the US Animal Health Association and recently rolled out their farm planning platform to a national audience. You can use the planner to create your own farm and add disease events (link provided in section above).

Heidi Varberg (MDA): Heidi mentioned that the Dairy and Meat Inspection Division are working on a new meat label guide for new equal to meat plants. They've also been collaborating with FFSD on updating the Food Licensing Wizard.

Brian Elliot (MN Food Products Association): Brian is the Director of Communications for the Minnesota Food Products Association. This is his first Task Force meeting.

Todd Whalen (MDA): Todd is a Dairy Compliance Officer within the Dairy and Meat Inspection Division of the MDA. They have received a few inquiries for including CBD in dairy products, therefore he is looking forward to the agenda topics for today. This is his first Task Force meeting.

Ruth Petran (Ecolab): Ruth mentioned that she recently returned from China where she attended several different food safety meetings with regulatory officials. There seems to be keen interest with collaboration among other regulatory individuals. Ecolab recently hosted officials from the Environmental Protection Agency (EPA). The group's activities included a review of real-life sanitizer and pesticide use (note that EPA classifies these as pesticides) in industry and visits with the MDA and the MDH. Ruth also mentioned that Ecolab plans to have someone participate on the MN Food Code Advisory Committee.

4. Hemp and CBD Food Landscape – AURI

Lolly Occhino and Jason Robinson gave a presentation on AURI's recent project regarding the industrial hemp industry in Minnesota. Their presentation slides are attached.

5. FDA Regulatory Update – Chris van Twuyver

A brief regulatory update regarding cannabis and cannabidiol (CBD) was provided. Links providing additional information shared in the dates and links section above.

6. CBD Regulatory Update – Carrie Rigdon, MDA Food and Feed Safety Division

The Minnesota Department of is working in conjunction with the Minnesota Dept. of Health on a CBD-related communication plan. The MDA recognizes that there is a lot of confusion over cannabidiol (CBD) in general and as it relates to food. They are planning communication out to (1) the general public, and (2) to the wholesale food processors/manufacturers and the wholesale food handlers they license and inspect that reinforces the FDA's statements and guidance as it pertains to CBD in food. The MDA is planning that the communication to the licensed food handlers, processors, and manufacturers would be sent out by mail, and the communication to the general public would be a public release announcement. The timing is still in flux given the coordination with other agencies and the hope is that both would be sent out yet this autumn.

7. CBD Regulatory Update – Kim Carlton, MDH Food Pools and Lodging Services Section

Kim Carlton provided MDH regulatory updates regarding CBD. MDH regulates retail food facilities such as restaurants, schools, and other locations where the food is largely served directly to the

consumer (although that is a gross oversimplification), and delegates that authority to thirty locally delegated agencies throughout Minnesota. We follow the Minnesota Food Code, which was adapted from the FDA Model Food Code. Only approved food additives and GRAS ingredients are allowed to be in food. For facilities that MDH regulates, only de-hulled hemp seeds, hemp seed oil, and hemp seed protein powder, may be added to food. MDH communications is working with MDA on coordinated messaging to our partners and stakeholders.

8. Food Chemical Safety Committee IAFP Submission – Brent Kobielush, Cargill

Brent shared the following submission to IAFP by the Food Chemical Safety Committee (ILSI):

“IAFP 2020 Proposal: Safety Considerations for Hemp-Derived CBD

Recent years have seen a rapid rise in the widespread use of cannabidiol (CBD) in foods and dietary supplements. In its pure form, CBD possesses no psychoactive properties. The 2018 US Farm Bill legalized the production of hemp (*Cannabis sativa*), a strain of cannabis that is rich in CBD but produces extremely low levels of THC, the principal psychoactive constituent of cannabis. The increased use of CBD presents unique complexities for its regulation due to unanswered questions related to short- and long-term effects on health and safety. This session will summarize current knowledge of biological and toxicological effects of CBD. The session will also summarize knowledge gaps and strategies for research on hemp-derived CBD to inform regulatory and public health decisions. Last, the session will present an overview on assessment of cannabis health and safety risks by Health Canada.

How does CBD exert its biological activity, is it anti-inflammatory and what are the current data gaps on safety? Norbert Kaminski, Center for Research on Ingredient Safety, Michigan State University

Analytical approaches for standardizing, detecting and validating contaminants in hemp-derived CBD. Dustin Starkey, Abbott or speaker representing the Association of Official Analytical Chemists Program on Analytical Solutions for Analysis of Cannabis and Hemp

Development of evidence-based information on the health and safety risks of CBD use. Sara Krenosky, Health Canada”

9. Food Innovation Team (FIT) Subcommittee Update

Kathy Zeman, Minnesota Farmers Market Association gave an update on the FIT team meeting held earlier today. The group reviewed one case this morning and Kathy provided a brief synopsis of the case and the recommendations that will be forwarded on to the food business owner and their corresponding regulatory agency. Kathy Zeman also proposed that the Task Force make a recommendation to the Commissioner to request inter-agency discussion (MDH, MDA, DOLI) regarding statutes 28A.07 (Issuance of License - assessment for fitness to do business) and 31.175 (water, sewage and plumbing) as interactions between these two have come up during a few FIT meetings.

9. Agenda Items for Next Time

1. Health Canada CBD update
2. AFDO recall committee process (March meeting)

3. Review of MEHA policy resource guide as pertains to CBD
4. Use meeting as a working session to work on recommendation(s) from the Task Force
 1. CBD
 2. FIT recommendation
5. Smarter food safety document
6. Recap of the RRT face to face national meeting - MDA
7. Cottage Food Producer issues (March meeting)

**MN FOOD SAFETY AND DEFENSE TASK FORCE
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November 12, 2019**

Attachment 1

Hemp and CBD food landscape presentation - Lolly Occhino and Jason Robinson, AURI



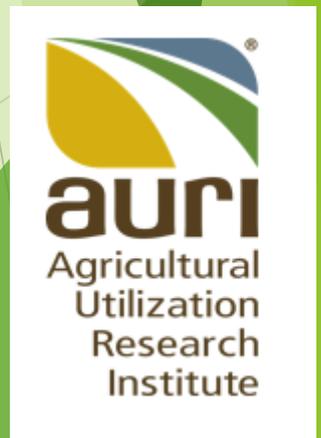
Building an Industrial Hemp Industry in Minnesota

AURI Initiative

“Value Chain Analysis
For Industrial Hemp in Minnesota”

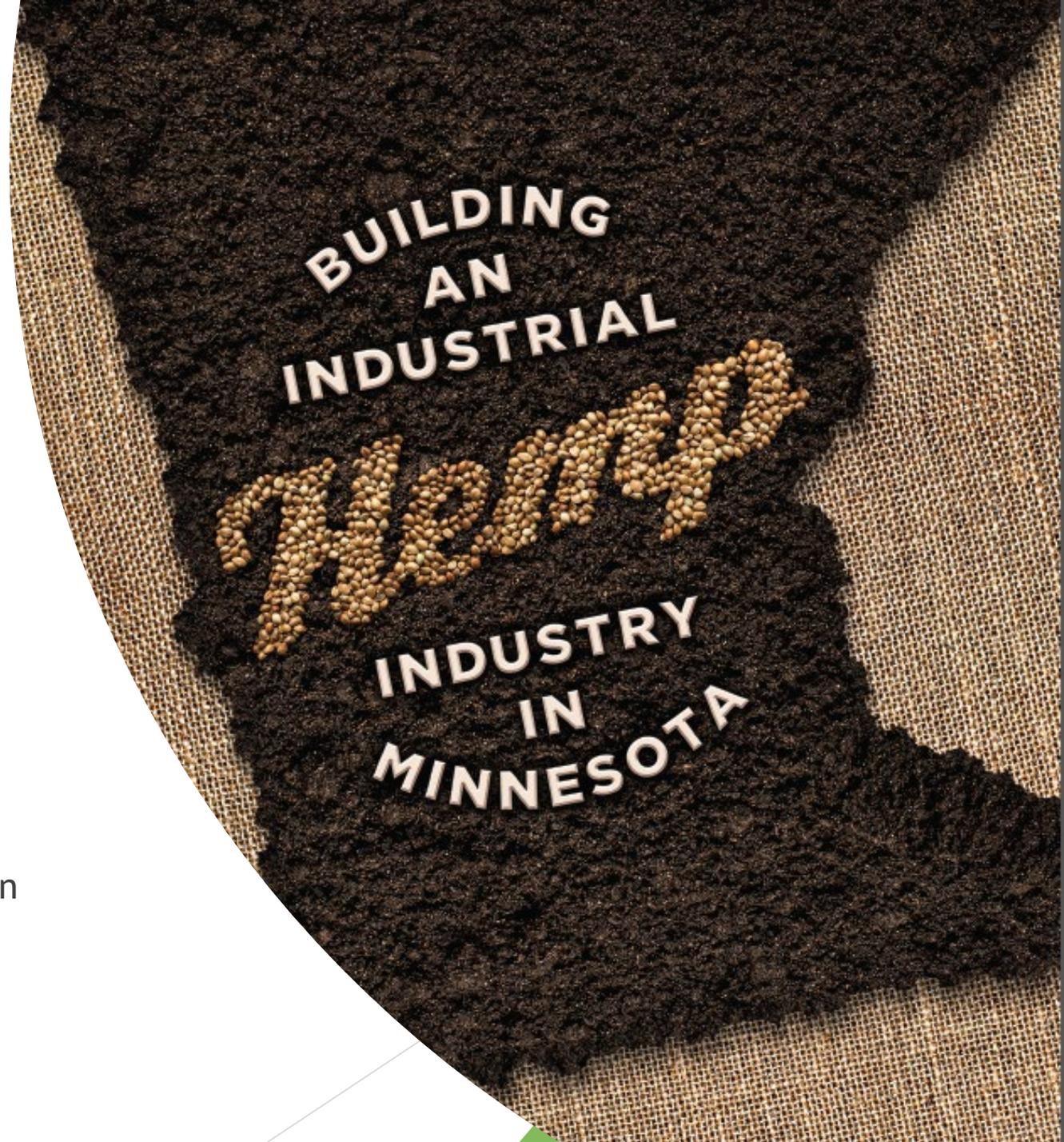
Primary Contacts:

Harold Stanislawski, AURI Project Development Director, Deputy Biobased Systems
Riley Gordon, AURI Engineer



Hemp Initiative

- ▶ Objectives:
- ▶ Focus on developing a hemp value-chain for Minnesota and the Midwest.
 1. Work closely with producers and processors identifying industry needs.
 2. Analysis of CBD oil, hemp seed meal, hemp flower and hemp fiber for quality control and identification of new uses (fuel, feed, fiber).
 3. Identification of hemp based markets.
 4. Identify state-of-the industry for processing and coproduct approval for feed.
 5. Release public report with findings of opportunities and hurdles for the hemp industry in MN. Host Industrial Hemp event in conjunction with AgriGrowth



Hemp Initiative

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60	Renewable Energy Landscape
66	Resources
68	Conclusions





AURI Focus Areas

Food

Grain: oils, powders, hemp hearts

Bio-based Products

Stalks: various fiber
and hurd applications

Coproducts

Several byproducts resulting from
processing hemp

Renewable Energy

Hemp Biofuels

AURI's Hemp Center for Innovation and Excellence

Fiber Processing and product showcase

- Small Scale Decortication
- Rope maker
- HempCrete Dog House
- Make your own HempCrete Station
- Stalk Teepees
- Retting Trials (Enzymatic/water/field)



Conference Room to meet with Groups

- Hemp plants growing in here
- Table made from hemp (chairs too?)
- MN Product showcasing
- Big Screen for educational purposes



CBD Extraction Room

- Small Scale Apecks Supercritical Extraction Unit
- Tabletop Ethanol Extraction
- Hang drying CBD Plants
- Pelleted Biomass



Food Processing Room

- Oil Press and Filter
- Tabletop Milling and Sifting
- Small Forsberg Dehuller
- Hemp milk making
- Hemp Hearts
- Hemp Seed Roaster



AURI Analytical Capabilities of Hemp Analysis

• MDA Industrial Hemp Pilot Program Certificate

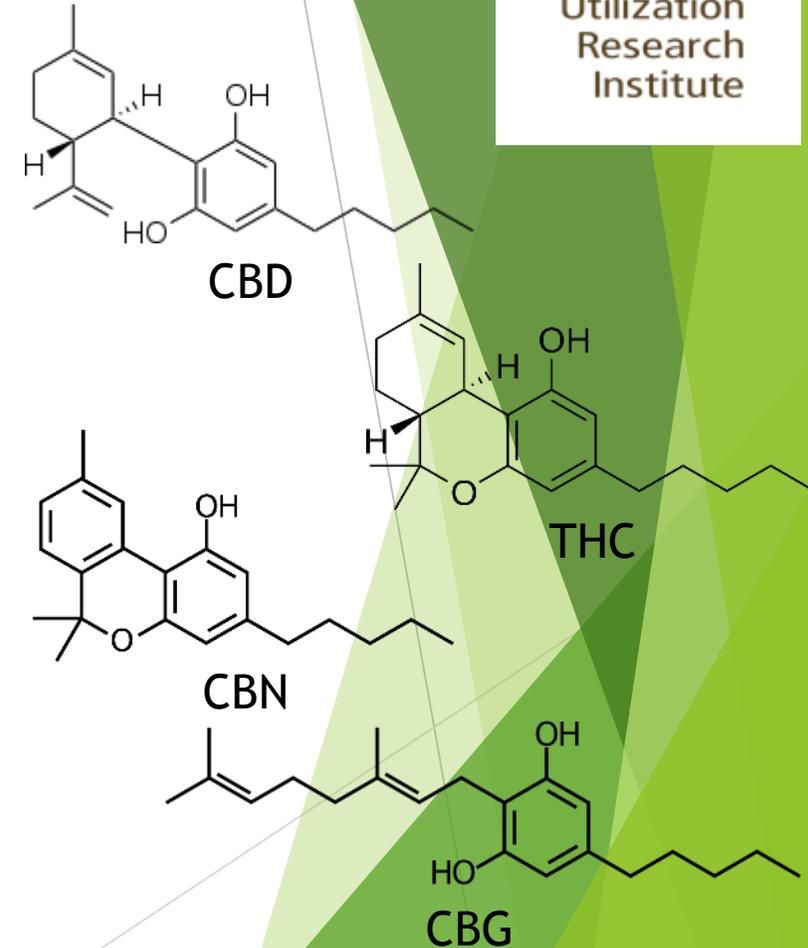
- Certificate for growing and processing/testing industrial hemp
- Processing at Waseca and Marshall Labs

▶ Hemp seed analysis

- ▶ Oil extraction
- ▶ Oil Filtering
- ▶ Protein
- ▶ Fatty acids of the oil

▶ Cannabinoid analysis (HPLC)

- ▶ Cannabidiol (CBD & CBDA)
- ▶ Tetrahydrocannabinol (THC & THCA)
- ▶ Cannabinol (CBN)
- ▶ Cannabigerol (CBG)



CANNABIS

IN U.S. AGRICULTURE

CANNABIS SATIVA

Since hemp and marijuana hail from the Cannabis Sativa family, they share similarities. However, due to each plant's biological structure, they have differences, most notably the amount of the psychoactive chemical tetrahydrocannabinol (THC), which produces a high.

HEMP

THC: <0.3%

MARIJUANA

THC: 5% – 35%

HEMP HURDS AS PAPER-MAKING MATERIAL

By

LYSTER H. DEWEY, Botanist in Charge of Fiber-Plant Investigations, and JASON L. MERRILL, Paper-Plant Chemist
Paper-Plant Investigations

This bulletin is printed on paper manufactured from hemp hurds, run No. 143, which is recorded on page 20

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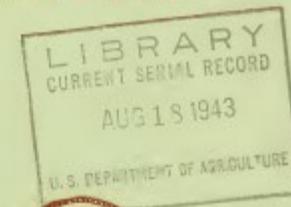


WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

FIBER PRODUCTION IN THE WESTERN HEMISPHERE

By

LYSTER H. DEWEY



UNITED STATES DEPARTMENT OF AGRICULTURE
MISCELLANEOUS PUBLICATION No. 518
1943

Hemp Related Networking/Meetings

- University of Manitoba
- Hemp Seed Oil Canada
- Composites Innovation Center
- C2Renew
- Central US hemp growers conference (Madison)
- **MDA processing and growers meetings**
- New Uses Forum
- Hemp Acres Field Day
- NOCO Event
- Triple S Seeds (MB)
- Hemp Sense (MB)
- Healthy oil seeds
- North Dakota Department of Ag
- Canadian Hemp Trade Alliance 20th Anniversary meeting
- **Waseca Hemp Summit**
- Speaking to U of M bioengineering students
- White Earth Nation
- Lower Sioux community
- **MN Hemp Association**
- **MN Industrial Hemp Association**
- Kandiyohi County meeting
- Winona Hemp Session
- Nu Hemp
- St. Charles Meeting

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 that these three ingredients have been classified as “Generally Recognized as Safe” (GRAS) for use in / as food products, thus additional approvals are not required if marketers do not make claims that they treat disease. A fourth hemp derived ingredient, cannabidiol (CBD), is gaining popularity as a wellness product and / or food ingredient, though the FDA has clearly communicated that CBD is not a legal food product as of mid-2019.

Opportunities

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

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 be used to fortify products such as bars or cereal. Hemp based protein beverages are another possibility, though the solubility of the protein may limit the amount that can be incorporated.

Dietary fiber supplementation in snack products is another opportunity for hemp. Hemp seed contains both soluble and insoluble fiber making it a good option for fiber fortification.

Finally, hemp oil presents another opportunity to take advantage of the nutritional benefits of the plant. The fatty acid profile of Hemp oil is 80 percent polyunsaturated, including the

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 such as soy. 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 our understanding of hemp’s perceived shortcomings and result in higher usage in food products.

With the introduction of the Minnesota Department of Agriculture’s Hemp Pilot Program starting 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 material into consumable, digestible food



Hemp Food Landscape

I. Hemp Market Overview

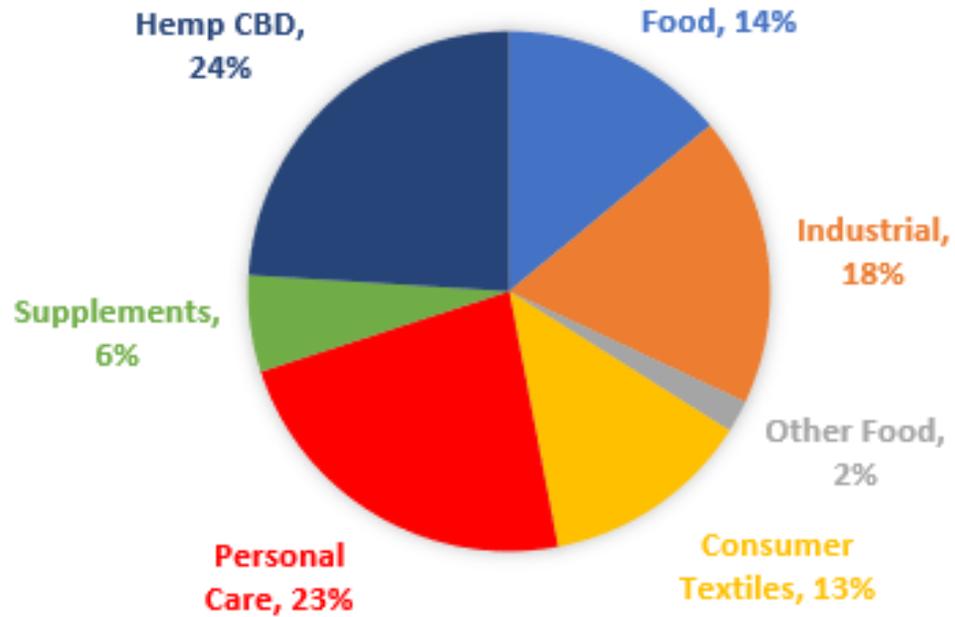


Figure 1. US Hemp-based Product Sales in 2017 (\$795 mil)
Source: Hemp Business Journal

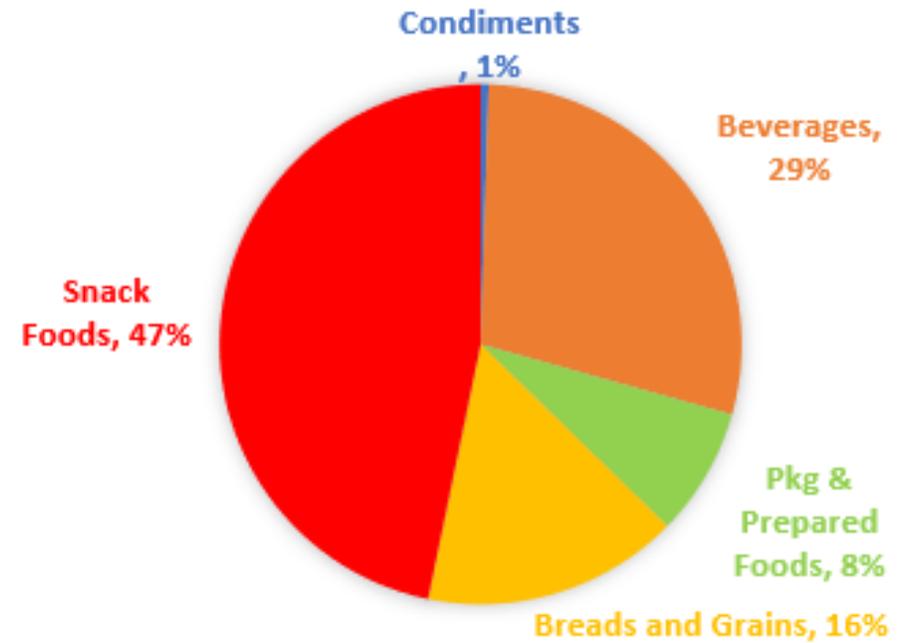


Figure 2. US Hemp-based Food Sales in 2017 (\$112 mil)
Source: Hemp Business Journal

III. Hemp as an Ingredient. Industrial Hemp is typically used in these forms as an ingredient in retail food products

			
Hulled Hemp Seed / Hemp Hearts	Toasted Whole Hemp Seed	Hemp Protein Powder	Hemp Oil
Serving Size: 30 g Fat: 13 g 2.5 g omega-3, 8 g omega-6 Fiber: 3 g Protein: 10 g	Serving Size: 30 g Fat: 10 g 2 g omega-3, 6 g omega-6 Fiber: 8.5 g Protein: 8.5 g	Available in fractions of 20, 23, 33, 43 and 50 % protein Non-allergenic	Serving Size: 1 T (15 mL) 5 g of omega-3 and omega-6 0 g trans fat 0 mg cholesterol
MN Hemp Farms (www.mnhempfarms.com); Hastings, MN			
Hemp Production Services (www.hempproductionservices.com); Saskatoon, Saskatchewan, Canada			
Hemp Oil Canada (www.hempoilcan.com); Ste. Agathe, Manitoba, Canada			

	<p>Hempseed Veggie Burger Company: Goodseed www.goodseedburger.com Pkg & Prepared Foods Hemp Seed</p>		<p>Superfood Ice Treat Company: Snow Monkey www.snow-monkey.com Pkg & Prepared Foods Hemp Seed Protein Powder</p>
	<p>Sprouted Wheat Hemp & Hops Bread Company: Alvarado St. Bakery www.alvaradostreetbakery.com Breads and Grains Hulled Hemp Seed</p>		<p>Hemp "Milk" Company: Pacific Foods www.pacificfoods.com Beverages Shelled Hemp Seed</p>
	<p>Hemp Hearts Company: Manitoba Harvest manitobaharvest.com/ Snack Foods / Ingredient Shelled Hemp Seed</p>		<p>Hemp Oil Company: Manitoba Harvest manitobaharvest.com/ Hemp Oil</p>
	<p>Hemp Hearts Granola Company: Nature's Path www.naturespath.com Snack Food Shelled Hemp Seed</p>		<p>Hemp Seed Snack Bar Company: General Mills www.larabar.com Snack Food Shelled Hemp Seed</p>





CBD DISPENSARY

KNOWN TO TREAT:

- SLEEP APNEA
- ANXIETY
- MUSCLE-JOINT PAIN
- DEPRESSION
- EPILEPSY
- INSOMNIA
- ACNE
- ARTHRITIS
- GLAUCOMA
- MUCH MORE

CBD = CANNABIDIOL

CBD ≠ THC

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LOFTLUB

AT A GLANCE



Cannabidiol

Forecasted Projections for Minnesota

OVERVIEW: CBD OIL

Cannabidiol (CBD) is a non-intoxicating chemical compound derived from the cannabis sativa plant. It is one of the 104 chemical compounds known as cannabinoids found in the cannabis or marijuana plant. The main psychoactive constituent of medical marijuana is the narcotic delta-9 tetrahydrocannabinol (THC), which has been shown to provide relief from nausea and improve appetite in patients. Industrial hemp has less than 0.3 percent THC, but contains many other bioactive components such as the non-psychoactive cannabinoids. CBD does not have a psychoactive effect; however, it has several potentially beneficial pharmacological properties that are currently being actively researched in several countries. Commonly reported benefits to using CBD include relief of seizures and epilepsy, anti-anxiety effects, pain relief or anti-inflammatory and digestive relief. Although CBD is technically legal as a result of the Farm Bill that passed December 2018, the legal marijuana economy is still fragmented as a result of the federal illegality. Currently, 33 states and Washington, D.C. have legal medical markets while 10 states (plus Washington D.C.) permit recreational use.

Hurdles

With the legalization of hemp after the passage of the farm bill at the end of 2018, the U.S. Food and Drug Administration (FDA) has been given the authority to regulate all products that contain cannabis or cannabis-derived compounds under the Federal Food, Drug, and Cosmetic Act. Currently, the FDA's stance on CBD in food products is that it is not legal, but the FDA is taking steps to legalize it. The FDA will continue the process to determine if CBD can be given generally recognized as safe (GRAS) status and be allowed to be used as a food ingredient.

While CBD may not be allowed as a food ingredient, the FDA has allowed companies to use CBD in dietary supplements if they do not make any therapeutic claims. The use in dietary supplements is allowed since the FDA does not consider them food, but substances that help to supplement one's dietary needs, such as vitamins or minerals. The biggest issue facing companies who put CBD into dietary supplements is the threat of false claims or misbranding. There are companies currently on the market who claim CBD can do things like improve Alzheimer's patients' conditions, cure addiction and reverse cancer cell growth. All of these are unsubstantiated and are against FDA regulations. With time, the FDA will be able to set precedent in shutting down these baseless claims and the market will hopefully stabilize. Another issue facing the CBD dietary supplement industry is misbranding. While CBD companies cannot make specific claims on their product, they can make claims such as contains "X" mg/mL or "X" mg/bottle. Some companies are finding out that the concentrates they receive to make their CBD products are not at the level claimed by their supplier and thus are adding much less to no CBD to their products. This leads to a misbranding claim and an eventual recall.

Technology/ Extraction Issues

Extraction choices include supercritical or cold carbon dioxide (CO2), ethanol, butane, propane, or methanol are currently used for extraction of CBD. With many opinions on what is the superior, long term technology, it remains to be seen what the prevailing technology will be. Much due diligence is needed to select any one piece of equipment. AURI recommends obtaining testing and a performance guarantees from the manufacturer before making a purchase. As of publication, there currently are no certified standard testing method for cannabinoids in hemp products (ex. AOAC, AOCS, etc.) and only one certified lab in Minnesota is testing for cannabinoids in products. There are also a lack of standards and regulations on the production of products containing Cannabinoids.





CBD

Product Opportunities

- Food
- Supplements
- Tinctures
- Medicine
- Beverages

Hurdles

- Lack of processing and ideal extraction capabilities
- Regulatory uncertainty
- False CBD concentration claims

Existing Infrastructure

Growing hemp in Minnesota has great potential. Some farmers are growing industrial hemp for CBD indoors in greenhouses, which may be a viable alternative to outdoor growing operations.

- Processors
- CBD extractors (CO2, ethanol, and others)
- Diverse food ecosystem to introduce CBD products

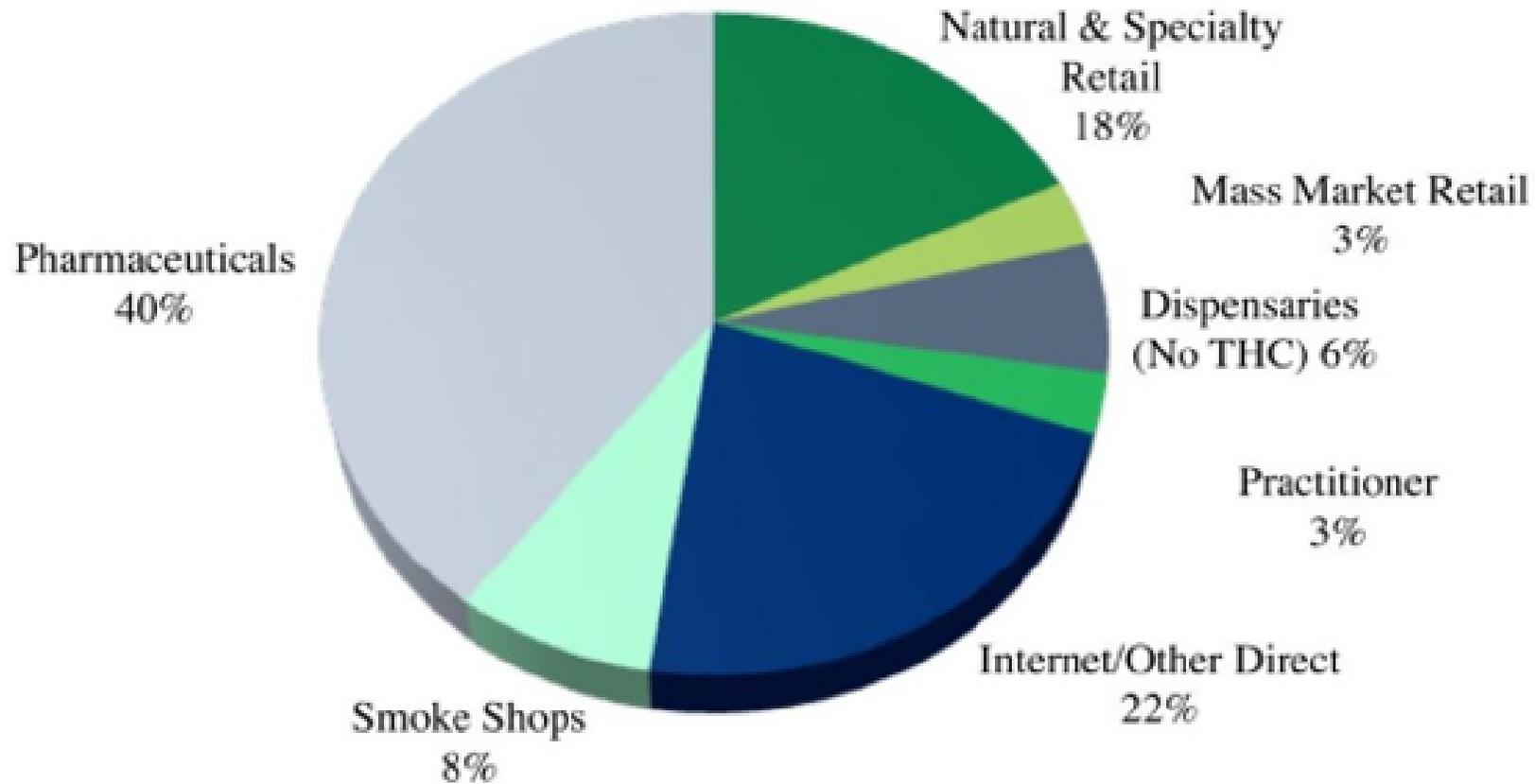
Forecasted Market Potential

While there are many projections for the CBD market, true market potential remains unknown due to the ever-changing industry from technical, legal, political and regulatory standpoints.

Recent reports project the CBD markets will hit \$22 billion by 2022.



\$450 Million U.S. Hemp-Based CBD Product Sales by Channel in 2020e



Source: Hemp Business Journal, The State of Hemp 2014-2022.

How is AURI helping companies with CBD applications?

“The Food and Drug Administration (FDA) will continue to regulate the use of compounds from hemp, including Cannabidiol (CBD). The 2018 Farm Bill does NOT change the Federal Food, Drug, and Cosmetic Act and will not automatically allow hemp-derived CBD to be sold in any and all forms, especially with regards to interstate commerce. AURI assists with product research only and does not have authority to make any determinations for the legality of food, beverage, cosmetic, or animal feed products. Products containing hemp-derived compounds remain subject to the FDA’s authorities and requirements and professional legal and regulatory input should be obtained prior to making commercial sales of hemp-derived products.”

What we're hearing...

- ▶ Hemp Extract vs CBD (on pack language)
- ▶ Confusion
 - ▶ What is Hemp vs Marijuana?
 - ▶ Can I sell a product with CBD?
 - ▶ What's legal and what isn't?
 - ▶ Food vs supplement?
 - ▶ Pet food?
 - ▶ Drug interactions?
 - ▶ Effective dose?

**MN FOOD SAFETY AND DEFENSE TASK FORCE
Meeting Minutes
November 12, 2019**

**Attachment 2
2nd Annual Minnesota Cottage Food Producers Conference Flyer**

2nd Annual Minnesota Cottage Foods Producers Conference

Swap & Share Table

Bring your extra or no-longer-using kitchen equipment. Trade or give it away!



Wednesday, January 22, 2020

9 a.m. - 3:45 p.m.

2001 Plymouth Avenue North, Minneapolis MN 55411

Early Bird Registration Fee (before December 22nd): \$30

Regular Registration Fee (after December 22nd): \$40

Bring your own lunch - beverages provided

Come join us for the 2nd Annual MN Cottage Food Producers Conference. Highlights include:

- Q&A with MDA Cottage Foods team on NPH foods lists and proposed amendments to the CFL
- UME experts on PH activity testing vs time and temp
- Food demonstrations on baking and fermenting
- Keynote speaker Dawn Olson-Wallerus, owner and executive pastry chef of Sugar and Spice Customer Cakery.



Visit MFMA.org for registration and additional information