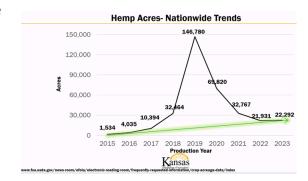
Kansas House Ag & Natural Resources Committee January 24, 2024 at 3:30 P.M.

Hemp Industry Updates

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These trends demonstrate not only growing demands for hemp products and transitions for traditionally row crop farmers towards fiber/grain, but also a need to eliminate restrictions and increase support for farmers wanting to adopt hemp as a value-add rotation crop:

Industrial Hemp Grower Licenses Issued by Year by KDA

Туре	2019	2020	2021	2022	2023
Grower	213	218	81	61	40

KDA issued 40 industrial hemp producer licenses in 2023.

31 (78%) licenses grew industrial hemp in 2023. Of those who planted hemp, 20 (64%) licenses grew for either fiber, grain, or seed; 7 (23%) for CBD or floral type hemp; 3 (10%) for public or private research; and 1 (3%) for propagative stock.

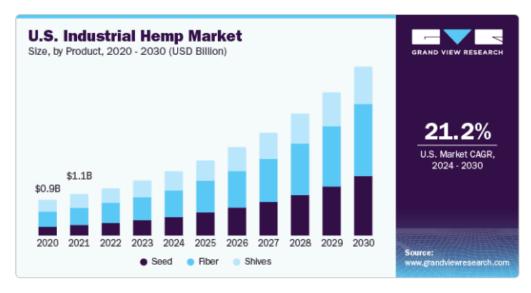
Industrial Hemp Acres in Kansas Reported to KDA

Activity	2019	2020	2021	2022	2023
Planted	2,782	3,968	501	842	814
Harvested	1,831	761	260	523	652

Harvested acreage from 2022 to 2023 increased by 25%, where a greater percentage of planted acres were harvested as compared to the previous year, an increase of 18%.

State	2022 Acres	2023 Acres	% Change
Montana	2,999	4,063	35
South Dakota	2,540	3,127	23
Idaho	1,228	2,305	88
Kentucky	1,351	1,506	11
Oregon	1,125	1,434	27
Kansas	945	1,086	15
Minnesota	529	990	87
Missouri	1494	951	-36
Oklahoma	552	885	60
California	340	696	105

By End-Use	2022 Acres	% Total	2023 Acres	% Total
CBD	7,736	35%	5,910	27%
Fiber	8,619	39%	11,144	50%
Grain	4,181	19%	4,267	19%
Seed	1,384	6%	939	4%
Sets	11	0%	32	0%
Total	21,931	100%	22,292	100%



Hemp-based Products Market Outlook (2023-2033)

The global market for hemp-based products is expected to account for a value of **US\$ 1.8 billion** in 2023 and jump to a size of **US\$ 16.2 billion** by the end of 2033. Sales of hemp-based products are projected to skyrocket at a **CAGR of 24.5%** from 2023 to 2033.

The legalization of hemp product sales and hemp farming in several countries across the world is a prominent factor that is expected to drive the shipments of hemp-based products over the coming years. New regulations and norms implemented by governments of different countries will crucially determine the future of hemp-based product demand.

Source: https://www.factmr.com/report/4504/hemp-based-products-market

State Hemp Programs that have transitioned to USDA

- Hawaii
- Mississippi
- Missouri
- New Hampshire
- North Carolina
- Utah
- <u>Vermont</u>
- Wisconsin
- Nebraska change pending in 2024

Benefits of a federal-run program include no licensing fees, the federal license is three years long instead of annual, and it can provide flexibility utilizing performance-based and private sampling and testing services. Operating under a federal-run hemp program for farmers also streamlines program rule changes, as licensed growers comply with just the federal program rules. Reporting requirements are not duplicated at the state and federal level, with farmers reporting to FSA like all other crops.

Market Updates

- Hemp grain food imports from Canada, \$55M in 2023
- Hemp textile imports totaled \$2.2M in 2023 and primarily originate from China
- China owned Q-Power opens \$10M hemp protein production facility in North Carolina
- The global industrial hemp market has been projected to grow from \$4.6 billion in 2019 to \$26.6 billion by 2025, driven largely by eco-conscious consumers who increasingly require environmentally friendly products and services.

Hemp Seed Meal as a Feed Ingredient

FDA-CVM recently approved hemp seed meal as a feed ingredient for laying hens. This approval process has taken 3 years and \$250,000+ from the Hemp Feed Coalition and others to gain approval. It is on the AAFCO annual meeting's agenda for final approval today! With this update to AAFCO regulations, the KDA has previously agreed with industry stakeholders to adopt this ingredient in their regulations through executive action. Without executive action by the KDA, it could take more than a decade for the agency to adopt this change through routine procedures.

Detailed update on FDA-CVM approval process on hemp seed meal for laying hens

https://newwestgenetics.com/2024/01/24/hemp-seed-meal-achieves-monumental-milestone-on-path-to-federal-approval/

"Hemp Seed Meal for laying hens has been recommended by FDA-Center for Veterinary Medicine and voted by AAFCO into their Ingredient Definition Committee for the final step in the approval pathway."

https://www.porkbusiness.com/news/hog-production/hemp-seed-livestock-meal-receives-green-lights-way-federal-approval

States that Have Approved Hemp Seed Meal as an Ingredient

- Alaska: No prohibitions on hemp use in animal feed.
- California: AB45 (2021)(passed) permits pet food and treats to contain hemp extract.
- Montana: HB0396 (2021)(passed) policy allows naturally occurring plant material, including hemp, to be used in feed for various animals.
- Nevada: AB101 (2021)(passed) allows veterinarians to prescribe CBD products for animals.
- New Jersey: Allows hemp products for both human and animal consumption.
- Ohio: Allows hemp products for both human and animal consumption.
- Oklahoma: HB349 (2022)(passed) allows hemp grain and derivatives for livestock feed.
- <u>Texas</u>: Feed Industry Memos 5-36 (2023) and 5-35 (2023) issue guidance to allow hemp seed meal as a commercial feed ingredient for horses and chickens.
- Virginia: Allows hemp products for both human and animal consumption.
- West Virginia: Allows hemp products for both human and animal consumption.

Hemp Feed Research

- Colorado State University Hemp seed meal for lambs
- Kansas State University CBD flower to beef cattle, and spent biomass for rumen
 - Nutrient concentrations, digestibility, and cannabinoid concentrations of industrial hemp plant components <u>link</u>
 - Plasma concentrations of eleven cannabinoids in cattle following oral administration of industrial hemp (Cannabis sativa) <u>link</u>
- Oregon State University Spent biomass to lambs and dairy cattle
- North Dakota State University Hemp seed meal to beef cattle
- <u>Texas A&M</u> Agricultural Scientists Receive USDA Grant to Explore Hemp as a Sustainable Alternative to Grain in Animal Feed
- Tuskegee University Hemp seed meal to goats

- <u>Virginia Tech University</u> Hemp seed oil to horses
- Tarleton University Hemp seed meal to rabbits, CBD for horses, hemp seed meal to bucking bulls
- Central State University Hemp heart protein to Rainbow Trout

State & Local Level Incentives for Hemp

Texas: Panda Biotech \$2.8M local incentives

• Projected to annually produce more than 35 million pounds of apparel-grade, cottonized hemp fiber suitable for use in a variety of yarns for knit and woven textiles.

Colorado 2019

• 9Fiber won a \$250,000 grant to open a 2-ton processing plant in Pueblo by spring 2020 that would employ roughly 25 people by the third year of its operation.

Kentucky 2019

GenCanna settled on the city of Mayfield for a hemp-processing facility, Kentucky Gov.
Matt Bevin announced the deal in a news release in December, and the state's Economic
Development Finance Authority gave preliminary approval for up to \$1.8 million in tax
incentives.

New York 2017

• \$10 million in grant funding available through two initiatives to advance industrial hemp research and economic development opportunities for industrial hemp businesses.

Pennsylvania 2023

- Pennsylvania Agriculture Secretary Russell Redding announced nearly \$390,000 in state funds for 5 projects to increase consumer awareness of industrial hemp products, opening additional market opportunities for growers and processors in the commonwealth.
 - Includes \$315,765 to Vytal Plant Science Research to introduce a STEM curriculum to high schools and universities to effectively engage in industrial hemp production, management, and cultivation by promoting and marketing industrial hemp for its many uses such as food, fiber, fuel, industrial, and personal care products.

--> Invest in Pennsylvania Hemp program: https://pulse.ly/8p943prts9

Federal Level Incentives Regarding Hemp

- August 2019, Senator Charles Schumer (D-NY) helped secure \$500,000 from the United States Department of Agriculture's (USDA) Agriculture Research Service for the nation's only industrial hemp germplasm repository, at Cornell AgriTech located in Geneva.
- November 2020, USDA's Market Access Program allocated \$200,000 to the National Industrial Hemp Council to spearhead market research and trade facilitation with an emphasis on hemp markets in Asia and Europe.
- January 2021, the USDA's Supplemental and Alternative Crops (SAC) grant program awarded \$125,000 per year for a project period of up to four years to support the breeding, testing, and development of "superior performing" industrial hemp varieties.
- March 2021, NIFA grants included nearly \$300,000 to Colorado State University for a study on hemp viruses and viroids, and another \$300,000 to Oregon State University on
- feeding spent hemp biomass to cattle, i.e., its Cannabinoid Residuals, Animal Health, and Product Quality program. The funds were part of \$8.5 million in funding spread across 29 research and extension grants.
- Through 2022 USDA awarded \$21,875,000 in grants to fund hemp research and market development since the passage of the 2018 Farm Bill.

Farmer References

Kansas Producer Gick Fleming, 316-734-6941 Kansas Producer Brent Boman, 785-806-9536 Missouri Producer Bill Cook, 816-830-1252