

The background image shows several woven baskets made from a light-colored, fibrous material, likely hemp. The baskets are stacked and overlapping, creating a textured, organic pattern.

Risk navigator

Hemp products

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Products liability

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About Markel's Risk Solution Services team

Risk Solution Services provides technical insight related to existing and potential insured risk at Markel. The team partners with our customers, claims, and underwriters to educate on both current and future risk trends and supports our clients with a comprehensive offering of risk management solutions.

We do this by engaging with clients, underwriting, and claims teams.

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What is hemp?

Hemp (also called industrial hemp) is the plant cannabis sativa L. (Cannabaceae), a different variety (but the same species) of plant that produces marijuana. Industrial hemp means a plant of the genus cannabis and any part of the plant, whether growing or not, containing a delta-9 tetrahydrocannabinol concentration of no more than three-tenths of one percent on a dry weight basis. Historically hemp has been used primarily for the fiber cultigen and its fiber preparations, and marijuana for the drug cultigen and its drug preparations. Marijuana typically contains 3 to 15 percent of the psychoactive ingredient delta-9-tetrahydrocannabinol (THC) on a dry-weight basis, while industrial hemp typically contains less than (<) 1 percent. Hemp is genetically different and refers to cannabis varieties that are primarily grown as an agricultural crop (such as seeds and fiber, and byproducts such as oil, and seed cake) and is characterized by plants that are low in THC, marijuana's primary psychoactive chemical. Hemp is and has been utilized in a variety of products in numerous markets for many years both nationally and internationally.



Industrial hemp comes under various jurisdictional authorities in the US. including the US. Drug Enforcement Agency (DEA), US. Food and Drug Administration (FDA), US. Department of Agriculture (USDA) and various state laws such as: Oklahoma's OK Stat. tit. 2 § 3-401 to 3-410, HB 2913 (2018); New Jersey's AB 1330 / SB 3145 (2018) / N.J. Stat. Ann § 4:28-1 to 4:28-5; Massachusetts' Mass. Gen. Laws. Ann. 128 § 116 to 123 (2017); and Colorado's Colo. Rev. Stat. § 35-61-101 to 35-61-109 (2016) to name just a few.

The US Department of Agriculture (USDA) oversees hemp cultivation as the "responsible federal regulatory agency". In October 2019, the USDA issued an interim final rule (IFR) outlining a federal program for growing hemp.

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On January 15, 2021 the US. Department of Agriculture (USDA) announced the final rule regulating the production of hemp in the United States. The final rule incorporates modifications to regulations established under the interim final rule (IFR) published in October 2019. The modifications are based on public comments following the publication of the IFR and lessons learned during the 2020 growing season. The final rule is available for viewing in the Federal Register and will be effective on March 22, 2021.³

A very important feature of the rule is that it reemphasizes an earlier USDA ruling that interstate transportation is legal, even if the shipment travels through a state that does not allow the growing of hemp.¹

Key provisions of the final rule include licensing requirements; recordkeeping requirements for maintaining information about the land where hemp is produced; procedures for testing the THC concentration levels for hemp; procedures for disposing of non-compliant plants; compliance provisions; and procedures for handling violations.³

Currently the industrial hemp market worldwide is well in excess of \$4.5 billion to \$5.5 billion annually (depending on source); and is harvested in over 30 nations, including Canada, Japan, China, and the European Union countries. US retailers and manufactures annually import in excess of \$100m worth of hemp in various forms including hemp fiber, hemp seeds, shives (wooden refuse removed during processing), and oil the vast majority from Canada.

¹The stage for hemp market growth was set by the Agriculture Improvement Act of 2018 (a/k/a/ 2018 Farm Bill, Section 10113) which changed federal policy regarding hemp, including the removal of hemp from the Controlled Substances Act and the consideration of hemp as an agricultural product. The bill legalized hemp under certain restrictions and defined hemp as the plant species Cannabis sativa L. with a delta-9 tetrahydrocannabinol (THC) concentration of not more than 0.3 percent on a dry weight basis. Previously, the 2014 Farm Bill provided a definition for hemp and allowed for state departments of agriculture or universities to grow and produce hemp as part of research or pilot programs.

Currently there are many institutions participating in hemp research, with 16 land-grant universities communicating on a periodic basis with one another per the S1084 Multistate participant listing research arrangement¹:

- Alabama A&M
- University of California, Davis
- University of California, Riverside
- Central State University, HBCU Ohio
- Colorado State University
- University of Connecticut at Storrs
- University of Florida
- Purdue University (IN)
- Kansas State University
- University of Kentucky
- University of Tennessee
- University of Vermont
- Virginia Polytechnic Institute and State University
- West Virginia University
- University of Wisconsin
- University of Wyoming

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Other colleges and universities are also doing research on hemp.

Hemp is one of the oldest sources of textile fiber dating back over 8,000 years. Until 1912 virtually all hemp in the U.S. was produced in Kentucky. The Marijuana Tax Act in 1938 essentially ended hemp production in the US. though there was some limited production in Wisconsin until 1958 and a limited allowance was approved during WWII. Until the 2018 Farm Bill was approved, opposition by the federal government allowed only small experimental plots of hemp to be grown in the U.S. mostly in Hawaii and additional Midwest states. Prior to the 2018 Farm Bill Montana (first license for an industrial hemp-growing operation issued 2016), Oregon (first license for an industrial hem-growing operation issued 2015), and North Dakota among other states did or tried to enact legislation licensing farmers to grow hemp over the years; however, federal approval still remained necessary and was difficult to get. Almost all hemp was imported into the US. despite the fact that a plethora of products included hemp as a constituent including many foods and cosmetics.

Most hemp is utilized in the form of:

- Seed
- Fiber
- Shives
- Oil



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What products contain hemp?

Products that may contain hemp include:

- Fabrics and textiles
- Yarns and spun fibers
- Paper
- Carpeting
- Animal bedding
- Animal foods
- Home furnishings
- Construction and insulation materials
- Auto parts
- Composites
- Foods and beverages
- Nutritional supplements
- Cosmetics and personal care products
- Pharmaceuticals
- Specialty pulp (cigarette paper, bank notes, technical filters, and hygiene products)
- Composites for vehicles
- Construction and thermal insulation materials
- Insect repellant
- Lubricants
- Hempcrete (concrete made from shives)



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Recent regulation

Hemp-related products have been sold in the United States for many years even though growing industrial hemp was prohibited in the US. The federal government previously prohibited agricultural hemp due to political concerns and EPA concerns that industrial hemp plants looked like marijuana plants and marijuana could be cultivated within hemp fields, providing a challenge to DEA's drug enforcement activities. Even though some states had passed regulations that would allow for regulated hemp cultivation within their states; the greatest challenge to these regulations was obtaining seeds to grow hemp. Formerly, federal law prescribed that "legally imported" hemp seeds must be sterilized, eliminating the ability for cultivation in the US. When the Senate Agriculture Committee in June of 2018 passed the 2018 Farm Bill 20-1, much of the opposition was removed from the import and cultivation of hemp in the US. The draft farm bill, officially known as the Agriculture Improvement Act of 2018 legalized hemp as a crop in the US. However, many of the older regulations such as those for sterilization still remain or have not yet been officially changed. As an example, additional clarification on seeds and growing programs was just released in 2021.

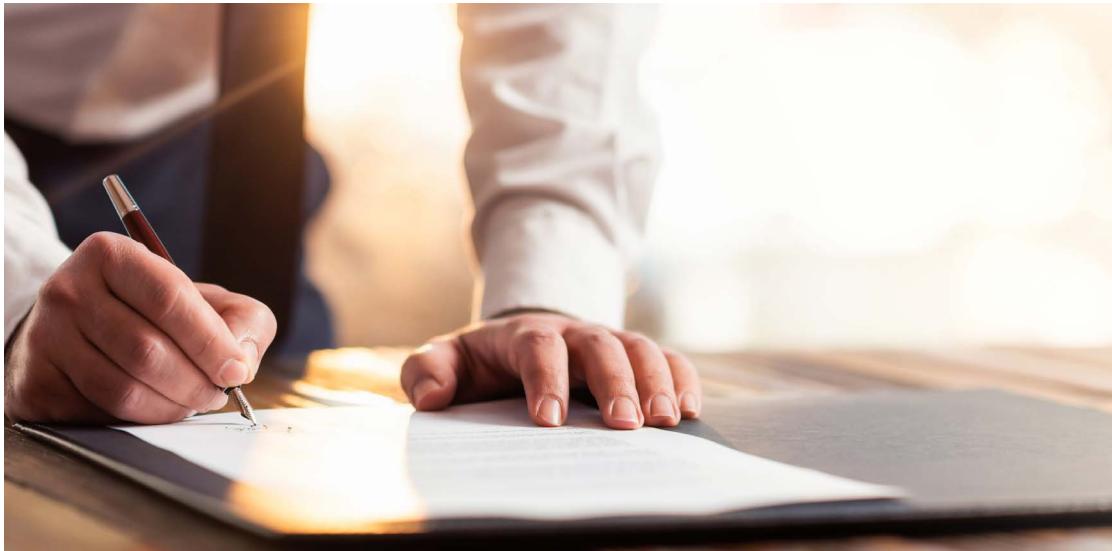


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Characteristics of industrial hemp

Hemp and marijuana come from the same plant, but from different varieties or cultivars. Hemp is distinguished from marijuana by its use and chemical makeup, as well as, by differing cultivation practices in its production. Hemp is characterized by plants that are low in delta-9 tetrahydrocannabinol (THC), marijuana's primary psychoactive chemical. A level of about 1% THC is often considered the threshold for cannabis to have a psychotropic effect or an intoxicating potential. However, current laws regulating hemp cultivation in the European Union (EU) and Canada use 0.3% THC as the dividing line between industrial and potentially drug-producing cannabis. Cultivars having less than 0.3% THC can be cultivated under license. Programs (e.g. The Industrial Hemp Program in Colorado) registers growers of industrial hemp and mandates sampling the crops to verify that the THC concentration does not exceed 0.3% on a dry weight basis.

Registration and testing of hemp where growing hemp is legal is required for commercial production, as well as, for research and development involving industrial hemp. Federal law now permits the importation of hemp fiber, sterilized seeds, and ingestible hemp-based products containing THC.

Hemp may also be characterized by another chemical, cannabidiol (CBD). Hemp may have higher levels of cannabidiol (CBD), which might mitigate some of the effects of THC. A high ratio of CBD to THC might also classify hemp as a fiber-type plant rather than a drug-type plant. The interplay of CBD and THC to produce psychoactive or other effects is still being researched.

Industrial hemp producers growing cannabis plants for fiber or oil seed use different varieties of cannabis plant and harvest timing than those growing cannabis for medicinal or recreational uses. Cannabis plants (with noted exceptions) are generally wind-pollinated, and/or insect pollinated. This causes concerns about cross-pollination among different varieties of cannabis. Industrial hemp producers try to avoid cross-pollination with cannabis harvested for medicinal or recreational marijuana.

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Hemp in food products

Many hemp-containing products are not directly ingested. Currently there is concern regarding hemp products more appropriately relate to how the hemp is cultivated, the level of THC in the hemp, and possible waste streams or byproducts that may contain elevated THC or CBD.

Hemp in food does present some concerns mostly speculative and unproved. Ingestion of hemp oil has been associated with non-psychotropic neurological effects, including the reduction of seizures in epileptic patients. Research is currently being conducted to understand the effects of THC and CBD in varying ratios on humans. There are some concerns ingesting hemp in foods or nutritional supplements may result in positive marijuana drug testing results; however, research has documented that, while THC may be detected in workplace urine blood testing, it is detected at a concentration well below that which is used to identify a positive result in US federal programs utilizing a THC metabolite level in urine.



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Hemp laws 2019 (situation changes monthly)¹

Allows cultivation of hemp for commercial, research or pilot programs

Does not allow cultivation of hemp.

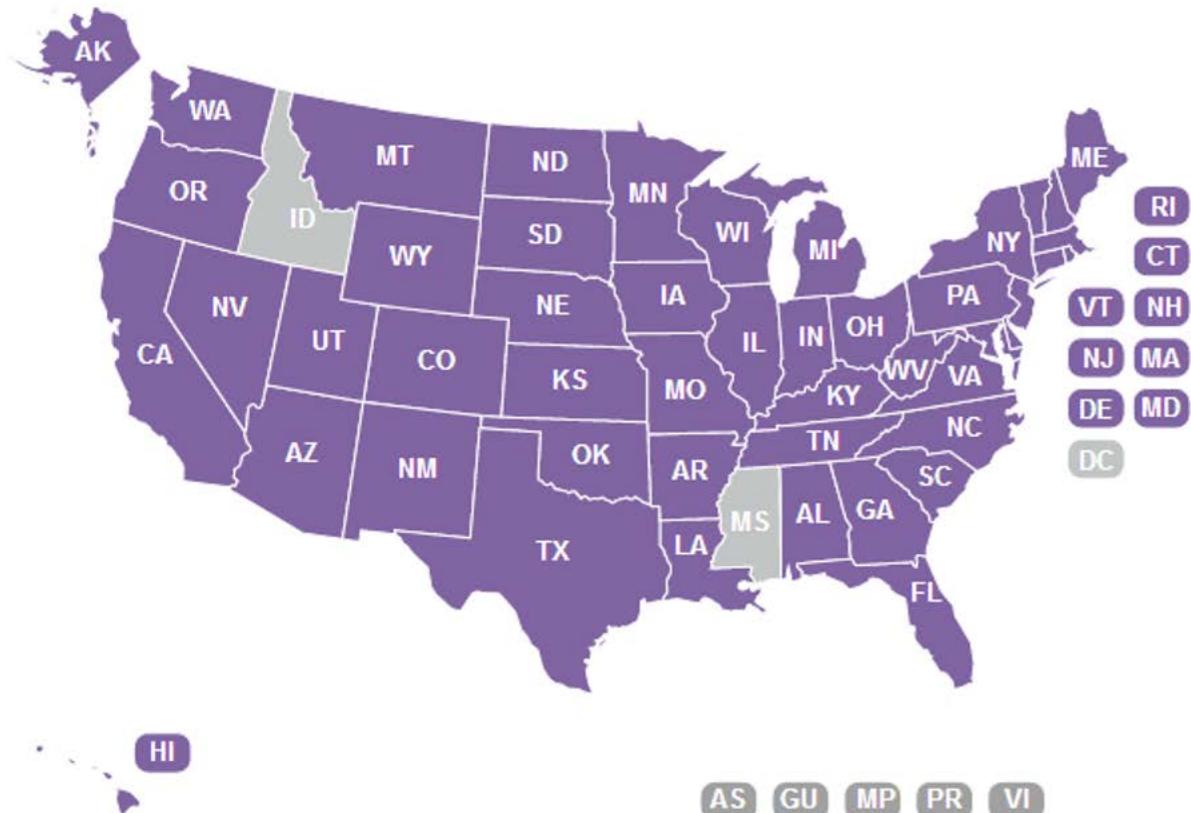


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¹National Conference of State Legislatures (NCSL)
444 North Capitol Street, N.W., Suite 515
Washington, D.C. 20001

²Public Law No: 115-334 (12/20/2018), Agriculture Improvement Act of 2018, Congress.gov

³United States Department of Agriculture (USDA), Agricultural Marketing Service (AMS), Washington, D.C., Release No.: 010-21, January 15, 2021, <https://ams.usda.gov>

⁴U.S. Department of Commerce, United States Census Bureau, census.gov

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