

Growing interest in HEMP



THE MIDWEST HEMP EXCHANGE WAS DEVELOPED TO PROVIDE MIDWEST FARMERS WITH **PROPER HEMP GENETICS, CROP CONSULTING, TESTING AND HEMP PROCESSING OPTIONS.**

Industrial Hemp has been a controversial plant for the past 70 years. It is still illegal to grow in nine states, including Iowa. But with new technology, increasing interest, and better education, the doors are opening, allowing Hemp to become a more accepted alternative crop for growers looking to diversify their operations. In 2019, only ten producers in Nebraska received a license to grow industrial Hemp. For the 2020 growing season, the state allowed an unlimited number of permits, resulting in 87 active industrial hemp growers in Nebraska.

However, hemp is not new to the state historically speaking. In 1899 Nebraska was the third-largest industrial hemp producing state in the United States, just behind Kentucky and Illinois. By 1910 Nebraska's Hemp production was in decline with various prohibition laws being enforced around the Midwest. Congress passed The Marijuana Tax Act of 1937 resulted in the banning of all hemp farming. At that time, our government

didn't have the testing capabilities to differentiate and regulate industrial hemp from marijuana. All hemp was banned as a result. Shortages in fiber during World War-II caused a very short resurgence of hemp plant growth from 1942-1945, before it was banned again. In 2014, the Farm Bill legalized research in hemp farms. Then, in 2018 Kentucky Senator Mitch McConnell signed the 2018 Farm Bill with a hemp pen, re-legalizing industrial hemp in the United States.

With modern technology, we can test the THC (tetrahydrocannabinol) level in plants, allowing the ability to differentiate industrial hemp vs. marijuana. This technology has opened the door for producers to grow hemp for grain, fiber, and oils legally.

"The increased interest in growing hemp is why we began to follow along and learn more about it," said Jason Krebs, Field Sales Agronomist based out of Elgin, Nebraska. "It's going to become an alternative crop for some producers, and we want to stay ahead of it. Learning what we can, providing products and services that fit all of

our growers' needs, is our duty as a cooperative."

MIDWEST HEMP EXCHANGE

With the revival of industrial hemp in states, such as Nebraska, The Midwest Hemp Exchange, was developed to provide Midwest farmers with proper hemp genetics, crop consulting, testing, and hemp processing options. This effort, led by CEO George Jones, has resulted in a research plot located off I-80 Milford, Nebraska exit. Experts, such as Dr. Andrea Holmes Professor of Chemistry from Doane University, play an instrumental role in assisting with research and education at the plot.

"It's a great research facility for everyone to come together, see what's working, what's not, and form a network for the producers," commented Krebs. "Networking with producers, professors, and possibly looking at the future of being a processor if the demand continues to grow. The collaboration is needed for this to become a profitable crop in the state." The Midwest Hemp Exchange has hosted several forums

in Nebraska, South Dakota, and Northeastern Kansas.

Central Valley Ag is a sponsor of the plots through the donation of fertilizer and chemical for the research facility.

In July, a forum was held where interested growers could come to see first hand what a hemp crop looks like. They walked the fields, listened to professors and growers talk about how to successfully grow industrial hemp.



MARIJUANA VS. INDUSTRIAL HEMP – KNOW THE DIFFERENCE

One of the biggest roadblocks in growing industrial Hemp is the misinformation and confusion

about Hemp. It's important to know that Hemp is the term used for the industrial, non-drug variant that is cultivated for fiber, hurd, and seeds. The difference between Hemp and marijuana is the THC content, THC is the crystalline compound that is the main active ingredient of cannabis – the attribute that gives a person the euphoric “high”. Industrial Hemp is anything that tests below .3 THC, confirming there is no opportunity to utilize it as a drug. Industrial Hemp with below a .3 THC is what was grown in Nebraska last year, and what is being grown again this year. “Now that we can test the THC levels and know the difference between the two plants, it only makes sense to allow the growth of industrial hemp,” says Krebs.

INDUSTRIAL HEMP GROWING SEASON

How does Hemp grow in the state of Nebraska? “Historically, when you think of raising Hemp, you think about the fiber plants. In that situation, there are a lot more plants per acre. They are long, tall plants. For the research plot, we are growing Cannabidiol (CBD or CBG) plants, making it different from traditional fiber plants,” explains Jason. “CBD or CBG are the primary acres being grown in Nebraska today. A bushier plant that is used for CBD has a lot more flowers, giving an appearance of a cedar tree farm. These plants are grown on small parcels of land. Anywhere from 20 acres would be a large operation if it's being grown specifically for the florals.”

What's CBD? CBD oil has a wide range of uses, many of which are medical—providing relief for chronic

pain, anxiety, inflammation, and many other conditions. There is extensive scientific research on how CBD could be anecdotal for things such as arthritis, Parkinson's, diabetes, Crohn's, and a long list of additional ailments.

To produce CBD oil from Hemp, producers begin with plants, either clones or transplants. For example, the plants in the plot at Milford were propagated from seed in greenhouses. CBD must be a feminized field, so they are propagating from female pieces to guarantee that none of the plants will pollinate. They went to the greenhouse in March & April, where they were grown until there were around 15" tall. Then they were placed in the field, at a population of anywhere from 2,000 – 3,500 plants per acre. Clones or transplants could cost anywhere from \$3-5.00 per plant, so it's a significant investment.

For the crop to thrive, it needs to be in well-drained soil. If you have sand-texture, those well-grade soils are the first a person would want to choose for your hemp crop. Irrigation is a must when producing CBD plants. Either with a drip line, drip tape or even with overhead irrigations. The only dryland hemp crop would be on the fiber side when producing Hemp for fiber or grain.

The plants in Milford were placed in the ground in early July. About two months in the field will bring the 15" plants to maturity; the farmer harvests the florals before the plant goes to seed, and before the first frost. Those florals are sent to an extractor after harvest, where the oils are extracted from the trichomes.



MARKETING & PROCESSING

With hemp still being a rare crop in the state, a grower should have a contract lined up before planting. Hemp is an investment, and you want to have your end market ready before putting anything in the ground. “It reminds me of popcorn, in how all of the agreements are in stone before anything goes in the ground,” said Krebs.

CBD crops require a significant investment, but other factors are keeping growers from producing the traditional fiber crop. “Processing is a big roadblock for anybody interested in growing industrial hemp for either fiber, grain, or CBD. There's a lot of interest in growing this alternative crop, but there's a lack of Processing. Consumer demand is here, grower interest is here, but the ability to process keeps the industry from progressing here in Nebraska.”

THE FUTURE

What does the future of hemp production look like? It's hard to say, but Krebs provides some more insight into what he thinks we'll see in the coming years.

“I think the CBG and the CBD are always going to have a demand for health reasons. But I do see the demand for fiber and grain in our area to increase dramatically. There's a huge demand for the fiber. Some of

the leading clothing manufacturers. Actually, the leading one, being Levi Strauss, wants to have one-fourth of the fabric within two years to be comprised of hemp in jeans.”

More brands are exploring the use of hemp in their clothes. The popular brand Patagonia has a hemp clothing line that uses a cotton-hemp blend in the listed products. Other industries are also finding ways to utilize hemp for their various needs. Auto-manufacturers have begun utilizing the crop for quarter panels, clutch linings, brake lining, etc. The construction industry has also taken to finding the best ways to use hemp, with a growing interest in “hempcrete,” a renewable building material made with hemp that can take the place of traditional drywall, insulation and siding. “It's an incredibly environmentally friendly product if you look at it that way.”

WHAT'S NEXT?

For a producer who has an interest in growing industrial Hemp, it's best to start small, says Krebs. “Set aside a quarter of an acre, just give it a shot, and get comfortable with the process. Utilize the network of people. Talk to those who are growing a hemp crop, attend one of the Midwest Hemp Exchange events, or contact us at CVA to learn more.” Want to know more? Reach out to info@cvacoop.com.

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SOURCES Midwest Hemp Exchange <http://midwesthempexchange.org/> Project CBD <https://www.projectcbd.org/cbd-101/what-is-cbd> National Hemp Association <https://nationalhempassociation.org/>