

US HEMP INDUSTRY



RESULTS

Topic(s): Child Eligibility

Q141

Subtopic(s): Agricultural Work or Fishing Work

Q. Is work with hemp considered qualifying work for purposes of the Migrant Education Program (MEP)?

— Hide Answer

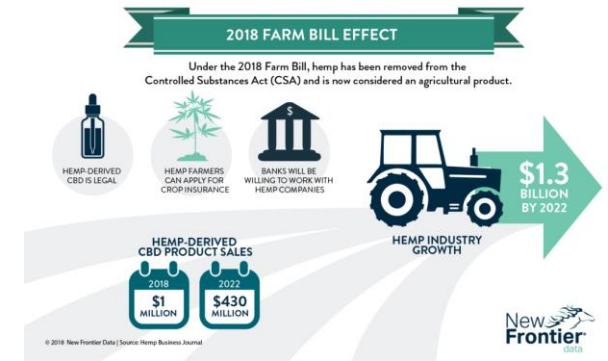
Production or initial processing of hemp crops may be considered qualifying work for purposes of the MEP, to the extent that such crops are legal under Federal and State law. Please see the MEP Non-Regulatory Guidance, Chapter II, F4 and F22 for further information on the types of activities that constitute production or initial processing of crops. Consistent with the definition of qualifying work, such activities must also be part of the individual's temporary or seasonal employment in agriculture.

BRIEF HISTORY- FARM BILL 2014

- With the passage of the 2014 Farm Bill, Congress took a small step toward changing hemp policy.
- First, it clarified that notwithstanding the Controlled Substances Act or any other federal law, an institution of higher education or a state department of agriculture may grow or cultivate "industrial hemp" as part of an agricultural pilot program, provided that the growth and cultivation is allowed under the laws of the state in which the program is located.
- Second, the 2014 Farm Bill drew a distinction between hemp and marijuana by defining industrial hemp as "the plant *Cannabis sativa* L. and any such part of such plant ... with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent ..." Because the primary goal of the 2014 Farm Bill was to generate hemp research and protect its cultivation, the law did not expressly address the processing of hemp or the manufacture, distribution and sale of products made from hemp.

<https://www.natlawreview.com/article/2018-farm-bill-legalizes-hemp-obstacles-to-sale-cbd-products-remain>

BRIEF HISTORY- FARM BILL 2018



- **2018 Farm Bill**

- The 2018 Farm Bill fills in the gaps left by the 2014 Farm Bill and **clarifies that hemp and hemp products are legal**. Passed by a wide bipartisan majority (386-47 in the House and 87-13 in the Senate), the legislation is a gargantuan 641-page document in which just a few provisions concerning hemp are buried among many others that address farm subsidies, food stamps, crop exports, conservation practices, crop insurance, rural development, animal health, specialty and organic crops, and assistance to beginning farmers and ranchers.
- While the hemp provisions may be short, they are nonetheless mighty.
- **Section 12619 of the 2018 Farm Bill amends the Controlled Substances Act in two ways:**
- It removes hemp from the definition of marijuana in section 102(16) of the Controlled Substances Act, 21 U.S.C. § 802(16).
- In listing THC as a Schedule I controlled substance in section 202(c) of the Controlled Substances Act, 21 U.S.C. § 812(c), it creates an exception for tetrahydrocannabinols in hemp.
- **Section 10113 of the 2018 Farm Bill defines hemp more broadly than the 2014 Farm Bill defined "industrial hemp" thus eliminating any question that both the plants and products derived from the plants are legal, so long as the THC concentration does not exceed 0.3 percent.** In that regard, section 10113 provides that "the term 'hemp' means 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 concentration of not more than 0.3 percent on a dry weight basis." Any cannabis plant or product that contains more than 0.3 percent THC will still be considered marijuana under federal law.
- The newly enacted legislation does not mean that hemp will immediately become a cash crop or that farmers can grow it as freely as they do corn, soybeans, wheat or tobacco. Before hemp can be grown outside of a pilot program conducted by an institution of higher education or a state department of agriculture, the state in which it is grown must first create – and the U.S. Department of Agriculture (USDA) must approve – a plan under which the state will monitor and regulate production.

<https://www.natlawreview.com/article/2018-farm-bill-legalizes-hemp-obstacles-to-sale-cbd-products-remain>

Hemp vs. marijuana

While hemp and marijuana are both part of the cannabis species, each has unique properties that distinguish its use.

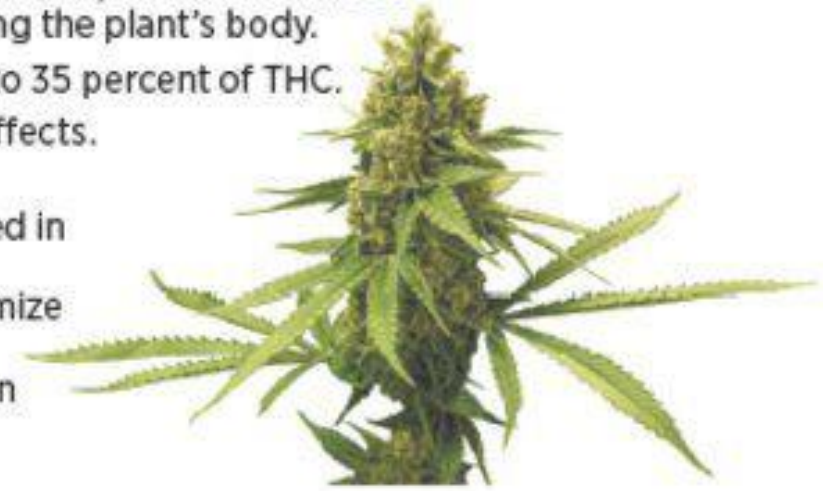
Hemp

- ▶ Can grow as high as 20 feet, with leaves bunched near the top of the stem.
- ▶ Contains 0.3 percent or less of tetrahydrocannabinol (THC).
- ▶ No psychoactive properties.
- ▶ Can grow in most climates, bunched together with other plants; requires little care.



Marijuana

- ▶ Shorter, resembles a bush, with more leaves and buds surrounding the plant's body.
- ▶ Contains 5 percent to 35 percent of THC.
- ▶ Psychoactive side effects.
- ▶ Growth is carefully monitored, controlled in an isolated, warm, humid area to maximize psychoactive uses. Cross-pollination can ruin THC content.



Sources: Purdue University Hemp Project, Ministry of Hemp



THE VERY USEFUL INDUSTRIAL HEMP

with over **50,000** different uses...

Hemp cultivation requires no chemicals, pesticides or herbicides.

HEMP SEEDS

HEMP STALKS

Harvest

Intermediate processing

Further processing

HULLING

PRESSING / CRUSHING

DECORTICATING

HEMP MEAT

HEMP SHELL

HEMP OIL

HEMP CAKE

HEMP FIBER

HEMP HURDS

HEMP is a RESOURCE

20 vs **4**
years for trees to mature | months for hemp

Hemp can yield 3-8 dry tons of fiber per acre, **FOUR** times what an average forest can yield.



Paper, fertilizers, soil nutrients and animal bedding can be made from leftover waste when processing hemp.

This means all parts of the plant are being used, or put back into the earth.

HEMP FIBER

HECKING PRIMARY (Lino) Fiber Fabric Insulation Carpeting Paneling	HECKING SECONDARY Cordage Pulp Recycling Additive	SCUTCHING TOW Cordage Bagging Fiber Board
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Anything made out of cotton, timber or petroleum can be made out of hemp

Hemp fiber is the **strongest** natural fiber in the world

HEMP HURDS

Fiber board
Compost
Mortar
Paper filler
Absorbent bedding
Chemical feedstocks
- Plastics / Paint / Sealant

Hemp hurds can be **cleanly** converted into **Gasoline!**

Through a Four Process called **PYROLYSIS** Hemp Biomass can also make Ethanol, Methanol & Methane Gas

HEMP MEAT

Food

Dairy products

HEMP SHELL

Flour

Bakery Products

HEMP OIL

Personal Care Products

Cooking Oil

Fuel / Paint

HEMP CAKE

Food Beer

Feed

Hemp seeds contains nutritious, **Polyunsaturated Fatty Acids (PUFAs)** 80% the highest amount found within the plant kingdom. **Highly nutritious** of humans and animals.

CANNABIS, MARIJUANA & HEMP

What's the difference?

HEMP

Cannabis sativa

Grows taller and skinnier than Marijuana, skinny leaves concentrated towards the top of the plant, few branches beneath its upper portion

Adaptable to grow in most climates

High in CBD
Low in THC (< 0.2%)*

Extremely versatile use:
Beauty and skincare,
clothing, cars, construction,
food, plastic, etc.

Non-psychoactive

MARIJUANA

Cannabis sativa, Cannabis indica

Broad leaves, dense buds, short, bushy appearance

Grown in carefully controlled atmosphere

High in THC (5%-35%)

Psychoactive

Medical and recreational use

*Due to differences in legal regulations of hemp cultivation, European plants contain <0.2% THC while US plants contain <0.3%. All the products you find on The Chillery have THC levels <0.2%.

ONE OF THE FIRST PLANTS

- Hemp was among the first plants humans cultivated. Ancient Chinese pottery bearing impressions from hemp rope suggest its use 5,000 years ago and possibly more than twice that long. Credit for this long-term relationship belongs to hemp's many applications: thread, cordage, cloth, paper, food and, yes, intoxication.



- Source: <https://www.history.org/foundation/journal/winter15/hemp.cfm>

BOTH MALE AND FEMALE PLANTS

- Cannabis has both male and female plants. When growing marijuana, male plants are removed and only female plants are cultivated. This is because when cannabis flowers are fertilized, it lowers the concentration of THC – the main chemical in marijuana that creates intoxicating effects – that the cannabis flowers produce.



Regular marijuana seeds will be 50% male, and 50% female. That means half of the seeds will be unusable as far as growing buds.

COMMERCIAL MARIJUANA

- Commercial marijuana is usually grown indoors so that conditions can be monitored very closely in order to optimize growth. Although you can find THC throughout the plant, it is the flowers or “buds” that are harvested for recreational marijuana.



Regular marijuana seeds will be 50% male, and 50% female. That means half of the seeds will be unusable as far as growing buds.

ENCOURAGING GROWTH OF FLOWERS

- Marijuana is grown to encourage it to grow lots of THC laden flowers. That's because THC is concentrated mostly in the trichomes — little resin filled glands — on the flowers of the plant. Flowers of the female marijuana plant that have not been fertilized by a male plant's pollen will produce more of the resin that contains THC.



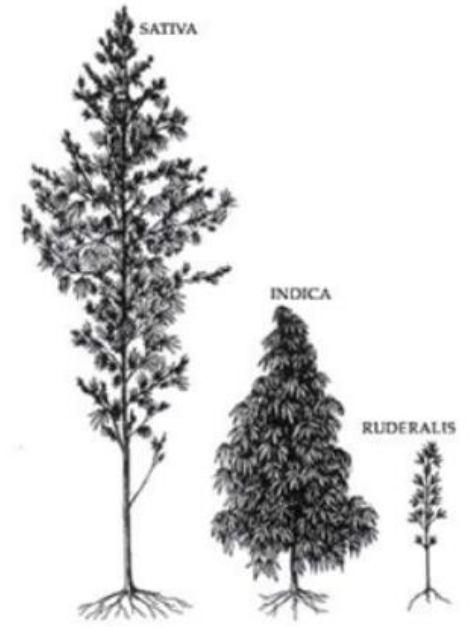
AS CLOSE AS YOU CAN

- Hemp, on the other hand, is cultivated as close as you can get to how cannabis grows naturally. Hemp is grown all over the world for food, oil, and fiber. The whole plant can be used, not just the flowers.



EASY WIND POLLINATION

- With hemp, male and female plants are sown very closely together, allowing for easy wind pollination and to more effectively crowd out weeds. This results in very tall, hardy plants with less branching that look very different from the often shorter, bushier marijuana plants.



NO THC VS TRACE LEVELS OF CBD

- Another key difference between hemp and marijuana is that hemp naturally has almost no THC, while most marijuana plants produce just trace levels of CBD.



33 TIMES LESS THE LEAST POTENT

- In order for hemp to be considered hemp, its flowers must contain just 0.3% THC — which is 33 times less than the least potent marijuana. Therefore, it's impossible to get high from consuming hemp.



SOWN IN TIGHT PATCHES

- For starters, farmers sowed their hemp crop in tight patches, creating individual plants that were tall by design. Byrd boasted that his hemp was “twice as long as that which comes from the East Country.” A traveler to Virginia's Shenandoah Valley observed hemp that was 14 feet tall. Hemp in tight clusters bears few branches, and therefore lacks the profusion of female flowers where the concentration of THC is the greatest.



- Source:
<https://www.history.org/foundation/journal/winter15/hemp.cfm>

ABUNDANTLY PRODUCTIVE



- Thomas Jefferson noted that hemp “is abundantly productive and will grow forever on the same spot,” unlike tobacco, which depletes soil nutrients. Markets for hemp abounded, too. Not only could it be made into textiles for one's own use, but there were so many willing buyers in northeastern cities that Americans exported little to England.
- Source: <https://www.history.org/foundation/journal/winter15/hemp.cfm>

RETTING OR ROTTING



After 13 weeks or so, the plants had to be cut or pulled from the ground and tied in large bundles to dry. Retting or rotting occurred by immersing the stalks in water or by allowing natural moisture, in the form of rain or dew, to fall on them, loosening the useful strands from the woody bark and interior. After another period of drying, laborers used a hemp brake, a wooden tool that is shaped like the jaws of a crocodile, to crack and separate the unwanted flakes of waste from the long fibers.

- Source: <https://www.history.org/foundation/journal/winter15/hemp.cfm>

REPETITIVE & TIRING TASK



- Breaking was a repetitive, tiring task. For all his praise of hemp, Byrd noted “one difficulty that discomfits me a little, an[d] that is the great Labour it requires in the breaking it.” Said Jefferson: “[B]reaking and beating it, which has always been done by hand, is so slow, so laborious, and so much complained of by our laborers.” This was after he had invented his own hemp brake in an effort to ease the chore.
- Source: <https://www.history.org/foundation/journal/winter15/hemp.cfm>

HEMP BRAKE



HEMP BECOMES A STAPLE IN VIRGINIA

- In Virginia's Piedmont and Shenandoah Valley regions, where tobacco did not grow so well, hemp became a staple. By the middle of the 18th century, Virginians had 12,000 acres cultivated in hemp, more than a quarter of the 45,000 acres they had in tobacco.
- Source:
<https://www.history.org/foundation/journal/winter15/hemp.cfm>



WHERE DO FARMERS GET SEED?



According to Experts: Canada and Europe. The challenge is the .3 THC limit. There is a lot of seed available outside of the U.S., but we don't know how acclimated it is to latitudes and longitudes here and how that correlates to THC limits at harvest.

If farmers bring in seed and the crop busts the .3 limit at harvest, it becomes marijuana under the law and must be destroyed. That will keep a brake on some robust expansion until we get a good feel for how those genetics are going to express themselves in different environments. It will take another year.

PLANT RATE AND ROW WIDTH

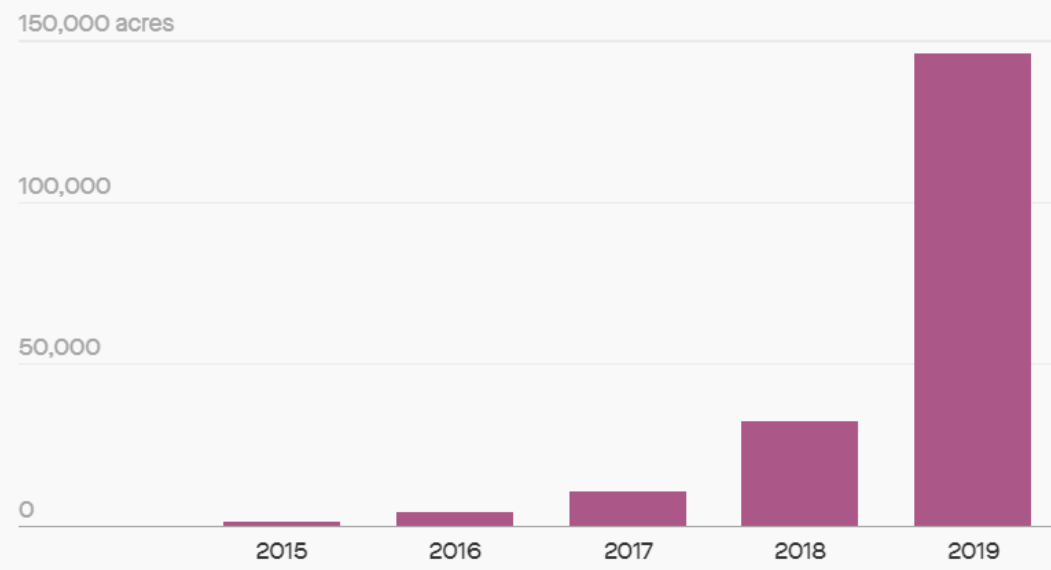
Industrial hemp is normally planted using a standard grain drill. Both oil and fiber hemp is typically planted in 6-7-in. rows, using every run of the drill.

Oil Seed: As per other seed crops, plants are direct seeded at a rate of approximately 25-40 lb/acre.



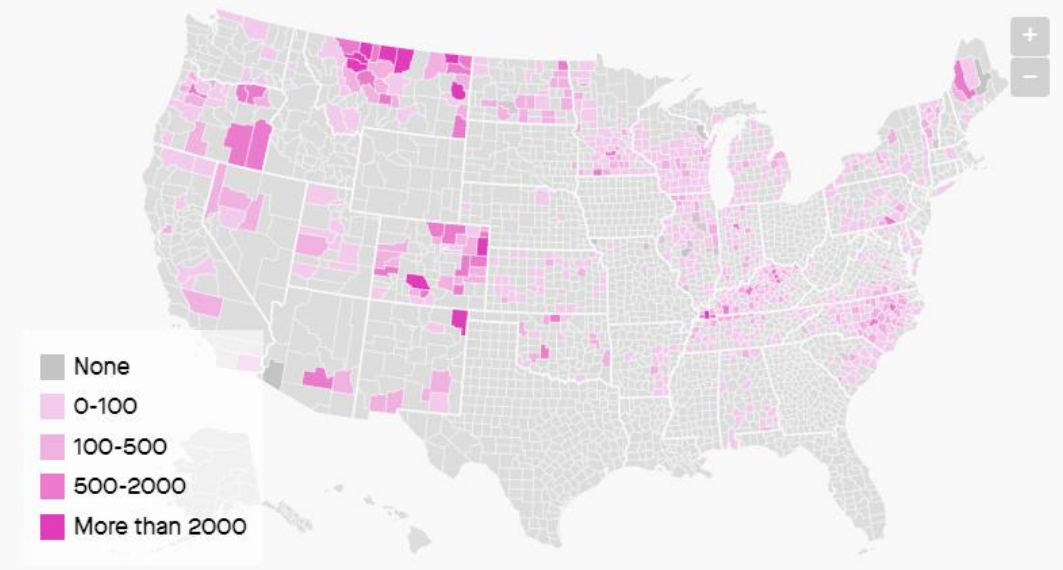
GROWTH OF INDUSTRIAL HEMP UP TO 2019

Industrial hemp planted in the US



Quartz | qz.com | Data: USDA Note: | As of December of each year

Acres of hemp planted by county in 2019



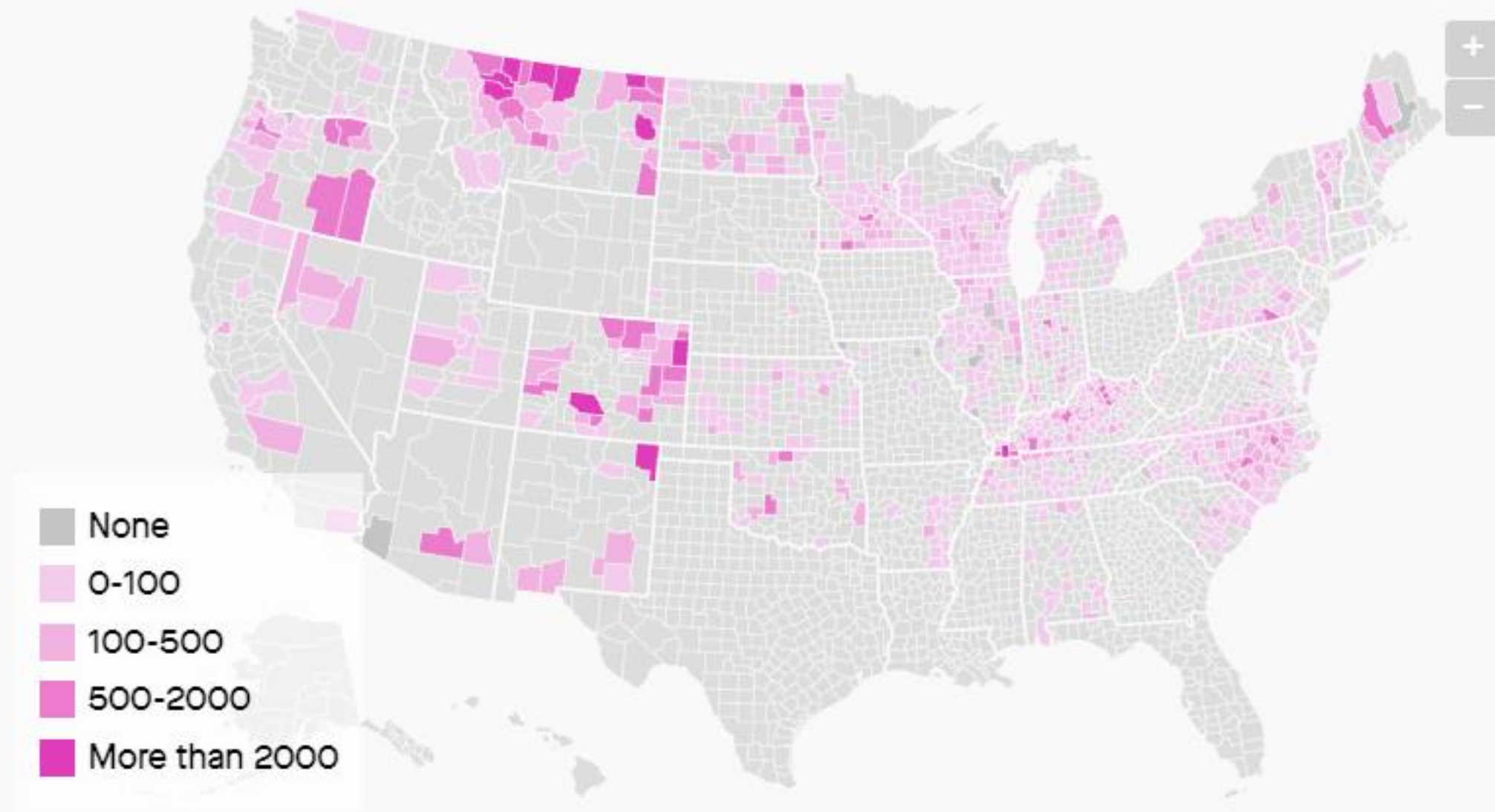
Quartz | qz.com | Data: USDA | Note: As of December

<https://qz.com/1777341/how-much-hemp-is-grown-in-the-us-2/>

INDUSTRIAL HEMP BECAME THE FASTEST GROWING CROP IN US AGRICULTURE IN 2019.

- Before 2015, hemp was virtually nonexistent in terms of US agriculture, because the Controlled Substances Act lumped it along with all cannabis plants (also known as marijuana) in 1970 as a Schedule I substance with “no currently accepted medical use and a high potential for abuse.”
- Then, in 2014, a new farm bill opened up industrial hemp cultivation to state-controlled pilot programs. The following year, 1,500 acres of hemp were planted in the US. Today, nearly 100 times that many acres of US farmland are covered in the stuff—146,000, according to new data from the US Department of Agriculture (USDA).

Acres of hemp planted by county in 2019



Quartz | qz.com | Data: USDA | Note: As of December

HEMP GROWTH CHALLENGES ABOUNDED

- Poor First Year Yields Make It Difficult For Farmers To Be Profitable
- Growing Hemp Is More Labor Intensive Than Traditional Crops
- Some Of The Hemp Seed Being Sold For CBD-Rich Plants Is A Rip Off
- Thieves Are Stealing Hemp Plants Thinking It Is Marijuana
- Too Much Hemp Being Produced And No New Markets For Farmers To Unload It

HEMP GROWTH CHALLENGES- LABOR INTENSIVE



(Jim West/agefotostock/Newscom)

Growing Hemp Is More Labor Intensive Than Traditional Crops

Growing hemp is a laborious affair, especially since many farmers do not presently have the proper equipment to efficiently see the process through from seed to harvest.

Although some hemp croppers say they have been able to use modern machinery to get the job done, others have had to invest tens of thousands of dollars in new equipment and retrofits. And because certain types of hemp plants must be put in the ground as seedlings, a lot of the work that goes into producing it must be done by hand. It's dirty work, but someone has to do it.

LIFE CYCLE *of a cannabis plant*



Germination/Seed 1-2 weeks

Seeds ready for germination are dark brown, hard, and dry. Encourage sprouting by watering seeds in a paper towel.



Seedling 2-3 weeks

Move seeds into growing medium. Plants need the maximum light at this stage, and appropriate water levels. Cotyledon (seed leaves) and iconic fan leaves will grow.



Vegetative 2-8 weeks

Plants need flowing dry air, fresh warm water, and increased nutrients – especially nitrogen.



Flowering 6-8 weeks

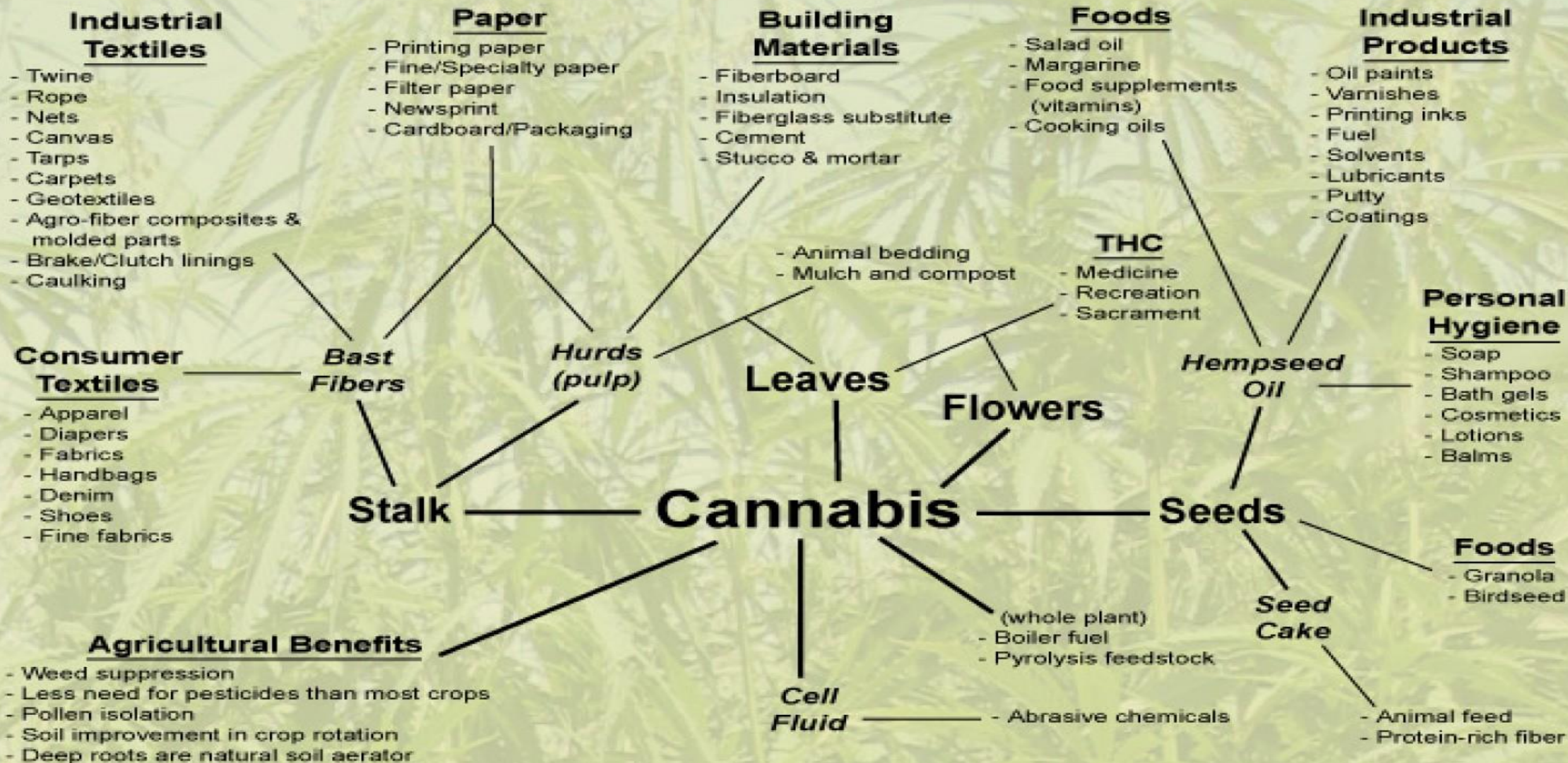
Gradually reduce light exposure to produce medicinal qualities. Increase phosphorous levels and decrease nitrogen. Fertilizers can help stimulate bud formation.



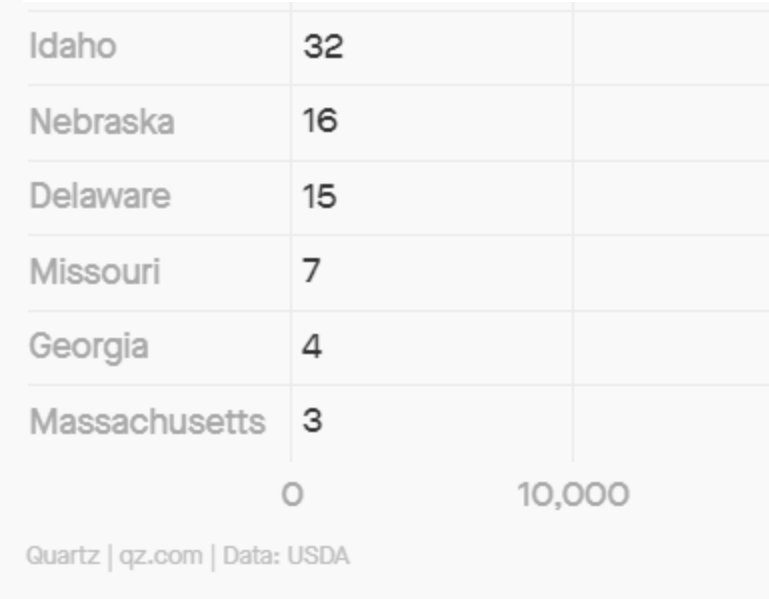
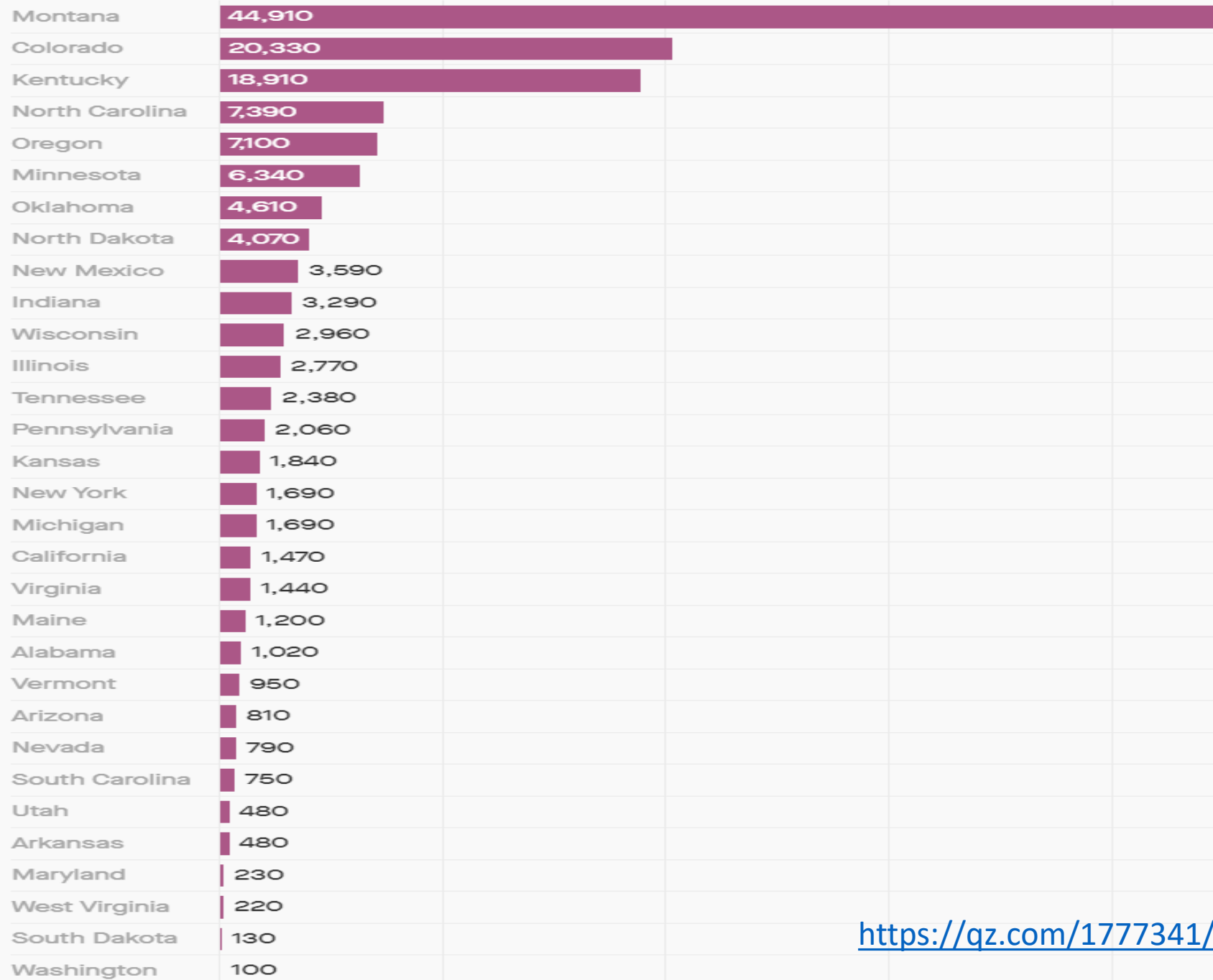
Harvesting

Trim and dry the buds – plant is ripe when buds turn from milky white to reddish orange. Harvest once 70-90% of pistils are browned for maximized taste and effect.

Modern Uses for the Cannabis Plant



Acres of hemp planted in 2019



<https://qz.com/1777341/how-much-hemp-is-grown-in-the-us-2/>

HEMP FARMING IN 2019 QUADRUPLED

- U.S. farmers have been licensed to grow 511,442 acres of marijuana's non-intoxicating cannabis cousin this year—a 455 percent increase over 2018 levels—according to Vote Hemp's annual survey of state agriculture departments.
- That's up from 78,176 acres grown last year, 25,713 acres in 2017 and 9,770 acres in 2016, the group reported.

<https://www.forbes.com/sites/tomangell/2019/09/05/hemp-farming-quadrupled-in-the-u-s-this-year-new-report-shows/#2bdd5ac9487d>

LOTS OF CHANGES IN 2019

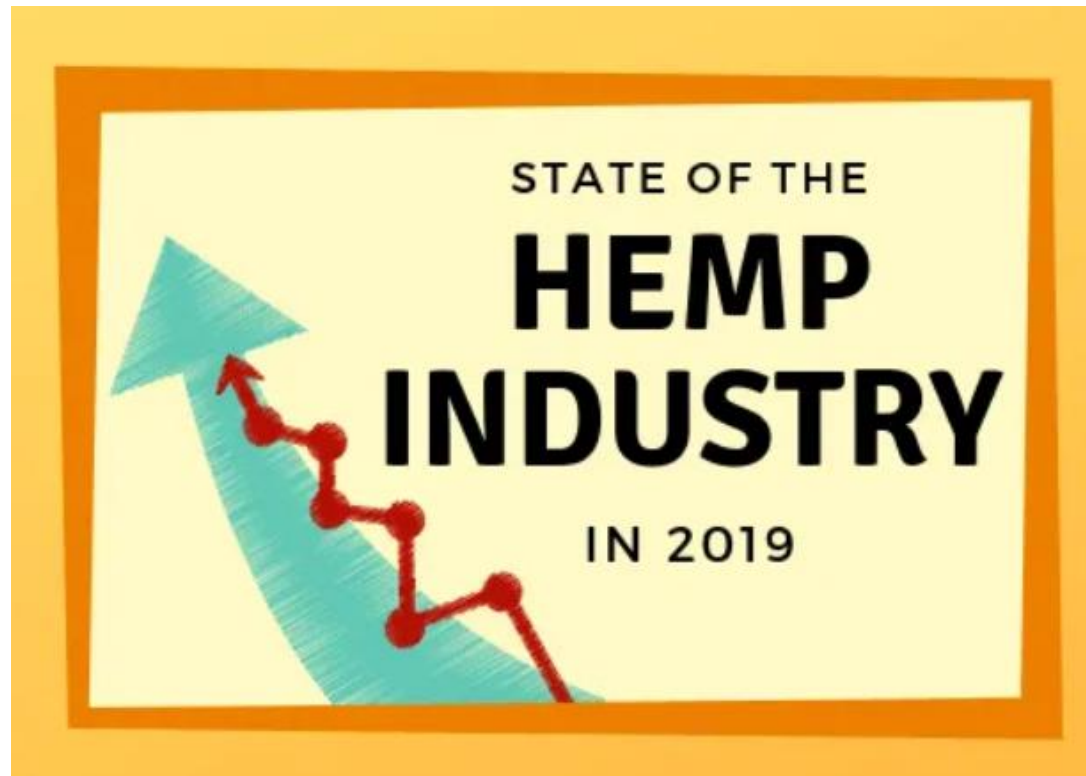
- New USDA Ag Rules on Hemp legalization regulations
 - Hemp Farmers were eligible for federal crop insurance
 - The Federal Credit Union Administration clarified that credit unions were allowed to maintain accounts for hemp businesses
- EPA announced reviewing application for pesticides to be used on hemp crops.
 - FDA is considering ways in which hemp-derived CBD can be allowed in food products and nutritional supplements.

CROP INSURANCE WAS MADE AVAILABLE

- In addition, the USDA made crop insurance available to hemp growers that produce hemp for fiber, flower, or seeds for the 2020 season. The insurance provides coverage under the Whole-Farm Revenue Protection (WFRP) program and cultivators who are part of state or university research programs will have access to it. According to Vote Hemp's 2018 U.S. Hemp Crop Report, 40 universities conducted hemp-related research in 2018, and that number has gone up in 2019.

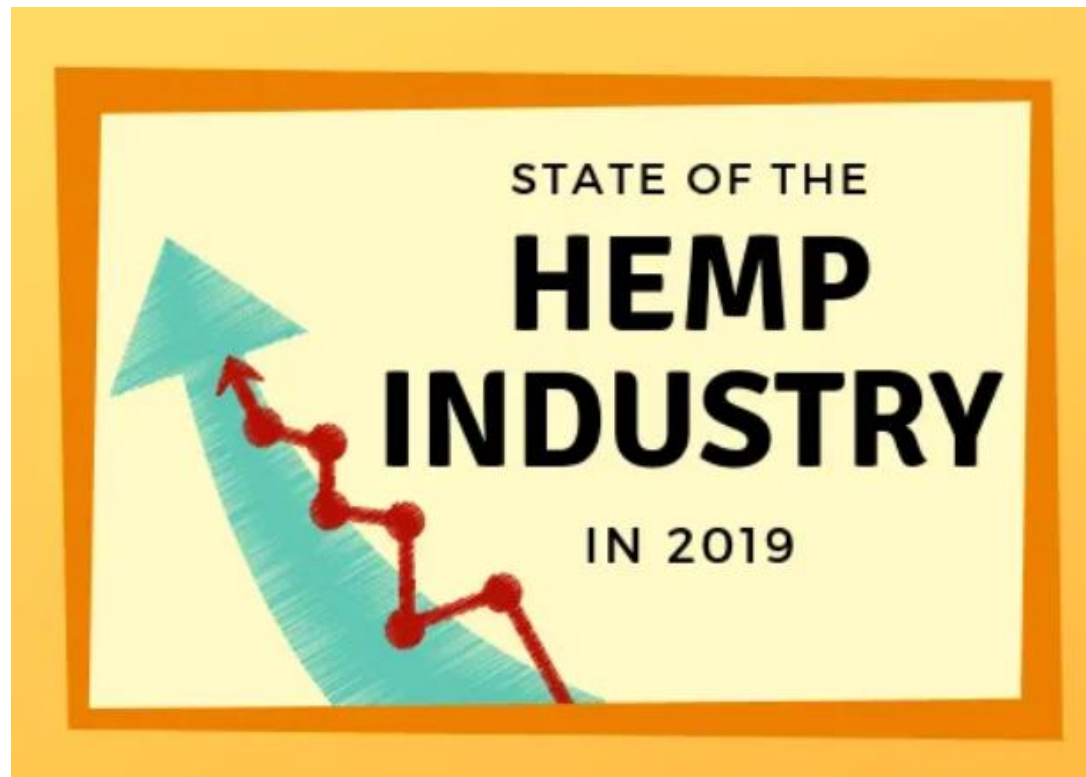
<https://cannabiz.media/state-of-the-hemp-industry-in-2019/>

WHO HAS THE HIGHEST NUMBER OF LICENSES?



- The [2018 U.S. Hemp Crop Report](#) from Vote Hemp found that 23 states grew (or started to grow) a total of 78,175 acres of hemp in 2018. Among those states, the five leaders were:
- **Montana:** 22,000 acres
- **Colorado:** 21,578 acres
- **Oregon:** 7,808 acres
- **Kentucky:** 6,700 acres
- **Tennessee:** 3,338 acres

WHO HAS THE HIGHEST NUMBER OF LICENSES?



- According to data in the Cannabiz Media License Database, the 10 states with the highest number of hemp cultivator licenses as of September 1, 2019 are:
- **Tennessee: 2,913**
- **Oregon: 2,534**
- **Kentucky: 972**
- **Colorado: 759**
- **New York: 422**
- **North Carolina: 396**
- **Pennsylvania: 328**
- **Vermont: 311**
- **California: 291**
- **Montana: 258**

BEWARE OF AND PREPARE FOR POTENTIAL PROBLEMS IN THE FUTURE

- Consumer demand for hemp-derived CBD and other products continues to rise, but there will come a point in time when supply will outweigh that demand. The result will be a significant drop in price.
- U.S. Secretary of Agriculture, Sonny Perdue, gave the following [warning about hemp overproduction](#) during an interview with Cheddar back in March 2018, “Farmers in the United States are so productive, they could crash this market before it gets off the ground.”
- Bottom-line, basic economics always prevail, but what will be the tipping point in the hemp market? Only time will tell.

GROWING HEMP IS GRUELING

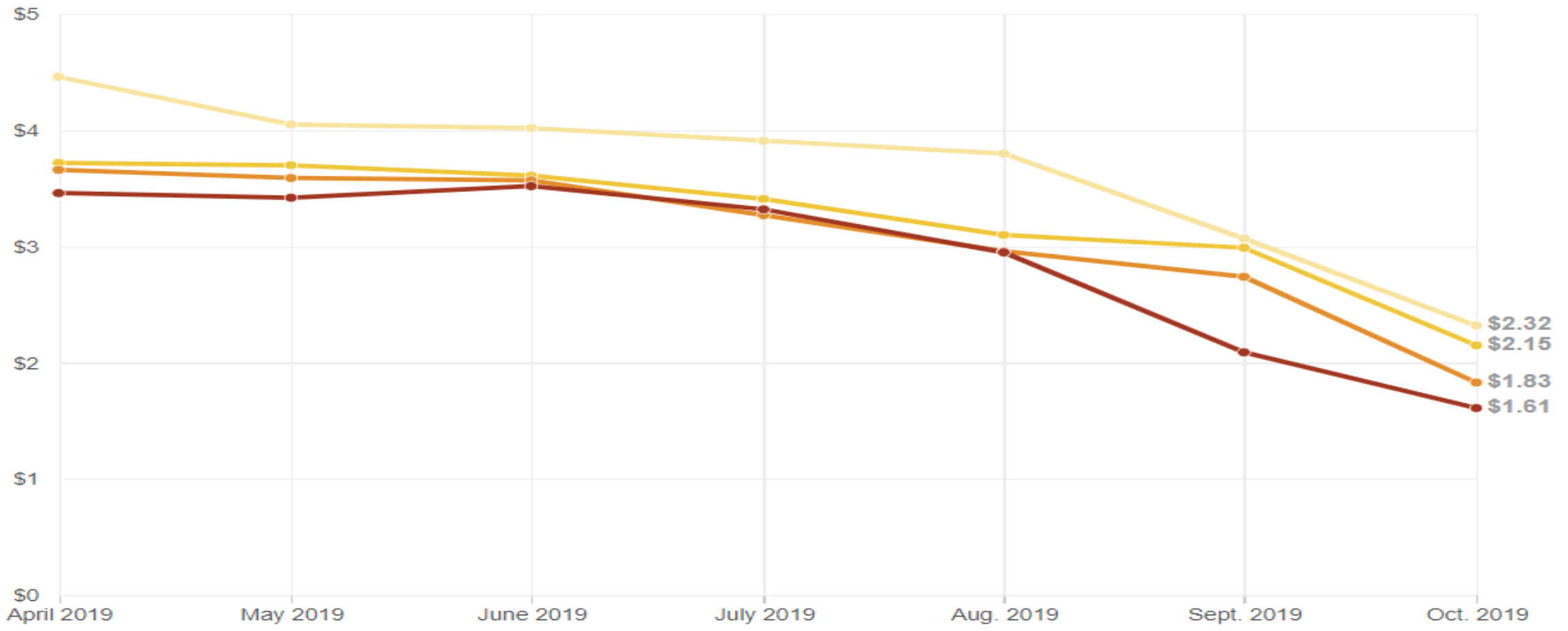
- In Sperryville, Va., "there's more cows than people," Elizabeth Melson says. In the distance shadows lift off the Blue Ridge Mountains. Golden, crimson and scarlet ash and birch trees hiss in the wind, lining the Thornton River. Melson surveys a quarter-acre plot of hemp — the dense, Christmas-tree-looking plants shimmer in the morning light.
- Melson started farming seven years ago. Now, she manages a small farm for Sperryville eatery Off The Grid. But this is the first time Melson has grown hemp.
- "We're all in the green rush, we wanna grow for CBD," Melson says. "It's the most amazing, you know, hyped-up, nutraceutical on the market right now, and [I] didn't realize how labor-intensive it was."

<https://www.npr.org/2019/11/16/779758160/budding-hemp-farmers-struggle-to-find-success-in-the-green-rush>

Wholesale CBD Prices Down As Much As 53% Since April

CBD is priced according to the concentration per pound of hemp biomass. The chart below shows the price for each percentage point of CBD per pound in an order.

■ 0-25K lb. orders
 ■ 25K-100K lb. orders
 ■ 100K-1M lb. orders
 ■ 1M+ lb. orders



Source: Hemp Benchmarks
 Credit: Daniel Wood/NPR

MARKETS BOTTOM OUT QUICKLY

- Jane Kolodinsky, an applied economics professor at the University of Vermont, puts it more bluntly: "[Hemp farmers'] markets have bottomed out, and they don't have buyers for their products."
- Many farmers who jumped into the industry after the farm bill passed are inexperienced, she says.
- "It's the farmers who just came in and decided, 'Oh, there's a CBD market — I'll plant hemp,' who really didn't have a business plan," Kolodinsky says. "They're probably going to be hurt the most."

Thousands Began Farming Hemp This Year. It Hasn't Gone How They Hoped.

By Dan Nosowitz ON NOVEMBER 7, 2019

The rush to farm industrial hemp has left some farmers without a buyer.



<https://modernfarmer.com/2019/11/thousands-began-farming-hemp-this-year-it-hasnt-gone-how-they-hoped/>

CHALLENGES FOR HEMP FARMERS 2019

- About 65% of U.S. hemp farmers lack a buyer for their crop this season, leaving them few alternatives, according to a July survey by Whitney Economics. Hemp has less infrastructure than other crops, so farmers cannot rely on selling their crop to a local grain elevator.



<https://www.reuters.com/article/us-usa-hemp-farmers/for-many-u-s-farmers-who-planted-hemp-cbd-boom-leaves-bitter-taste-idUSKBN1XD0GE?>

ENTERING IN ON SPECULATION

- “People entered in on speculation,” said Chase Hubbard, hemp commodities analyst at The Jacobsen, a price reporting agency. “The results could be tragic for some small farmers.”
- The 2018 Farm Bill coincided with a boom in the market for food, drink and cosmetic products laced with CBD, an industry that Wall Street firm Cowen & Co has estimated to grow to \$16 billion by 2025.



<https://www.reuters.com/article/us-usa-hemp-farmers/for-many-u-s-farmers-who-planted-hemp-cbd-boom-leaves-bitter-taste-idUSKBN1XD0GE?>

ENTERING IN ON SPECULATION-2019

- Enticed by projections that hemp would bring \$750 in profits per acre - well above the \$150 or less from a typical acre of soybeans - farmers placed their bets on a crop that had been illegal for most of their lifetimes.
- Last April, as farmers planted, a pound of hemp biomass sold for about \$40. Now, as farmers harvest and take their crops to market, the same amount sells for \$18-\$25, according to PanXchange, a commodities platform.



<https://www.reuters.com/article/us-usa-hemp-farmers/for-many-u-s-farmers-who-planted-hemp-cbd-boom-leaves-bitter-taste-idUSKBN1XD0GE?>

WHAT TO DO IN THE END

- Sam Baker, a fifth-generation tobacco farmer from North Carolina, grows tobacco seed, hemp and hemp seedlings. After selling millions of seedlings to growers this year, about 400 people have called him, asking him how to sell their crop.
- “Crews planted 75, 80, 90 acres and didn’t know what to do with it in the end,” he said.



<https://www.reuters.com/article/us-usa-hemp-farmers/for-many-u-s-farmers-who-planted-hemp-cbd-boom-leaves-bitter-taste-idUSKBN1XD0GE?>

WHEN THE CROP IS TOO HOT

- Some farmers are discovering that the crop is more labor intensive and comes with more risks than many hemp-backers claimed. As a consequence, many are exposed to everything from mold to the danger that cultivated crops contain higher-than-allowed levels of the psychoactive chemical THC, which give users a high, and have to be destroyed.
- Some of Maclure's plants tested "hot" for THC this year, so his crew had to cut the offending plants and crush them outdoors.

<https://www.reuters.com/article/us-usa-hemp-farmers/for-many-u-s-farmers-who-planted-hemp-cbd-boom-leaves-bitter-taste-idUSKBN1XD0GE?>

MORE LIKE CANOLA THAN CRAFT BREWING

- As hemp becomes a commodity, small farms cannot keep up with larger operations that can sell their crops in bulk at lower prices, wholesale buyers say.
- “Mom and pop are not going to be able to compete on this playing field,” said Michael Gordon, co-CEO of Kush.com, a major hemp wholesale marketplace. “The hemp industry is more like canola oil than craft brewing.”

<https://www.reuters.com/article/us-usa-hemp-farmers/for-many-u-s-farmers-who-planted-hemp-cbd-boom-leaves-bitter-taste-idUSKBN1XD0GE?>

MORE LIKE CANOLA THAN CRAFT BREWING

- Despite the difficulties, some farmers remain optimistic about the budding industry. Farmers with established supply chains and experience report that they are turning a profit this season.
- Meanwhile, industry professionals predict that many first-time hemp farmers will leave after this disappointing first harvest.

<https://www.reuters.com/article/us-usa-hemp-farmers/for-many-u-s-farmers-who-planted-hemp-cbd-boom-leaves-bitter-taste-idUSKBN1XD0GE?>

CBD CRAZE

- Though many of the traditional uses of the versatile hemp plant, for textiles, papers, and rope, have yet to prove particularly profitable, a craze for cannabidiol, or CBD, provoked a frenzy for planting the crop. Cannabidiol is a legal but almost entirely unregulated extraction from industrial hemp, taken as a supplement.



<https://modernfarmer.com/2019/11/thousands-began-farming-hemp-this-year-it-hasnt-gone-how-they-hoped/>

CBD

- CBD is FDA-approved for an epilepsy treatment but more commonly used recreationally to theoretically treat everything from anxiety to gluten intolerance, and is likely already a billion-dollar industry. Some estimates suggest it'll skyrocket in the next few years; [one study predicts](#) it'll be a \$20 billion industry within a few years.



<https://modernfarmer.com/2019/11/thousands-began-farming-hemp-this-year-it-hasnt-gone-how-they-hoped/>

EASY TO GROW?



- Given the demand, [some in the hemp industry predicted](#) that good-quality hemp would fetch around \$750 an acre, [several times more](#) than row crops like corn and soy. And hemp was presented as an easy-to-grow crop: naturally resistant to pests, able to tolerate wide variances in climate and soil quality.

<https://modernfarmer.com/2019/11/thousands-began-farming-hemp-this-year-it-hasnt-gone-how-they-hoped/>

EASY TO GROW?



- Hemp has also proven a little more tricky to grow than expected. The process of growing cannabis without THC in it—the legal limit is 0.3 percent—is inexact and based on cross-breeding. Some farmers accidentally grew hemp that tested above that limit, which makes that hemp illegal to sell in most states. Those farmers had no choice but to destroy any offending plants. There’s also a recurring issue with mold; some farmers have lost nearly half their crop to mold, which renders the plant unsellable.

<https://modernfarmer.com/2019/11/thousands-began-farming-hemp-this-year-it-hasnt-gone-how-they-hoped/>

EASY TO GROW?



- Another issue is that hemp, despite its vibe, is not particularly well-suited for small acreage cultivation. It takes an awful lot of raw plant material to extract CBD; a hemp marketplace CEO told Reuters that the crop is more like canola than a small-batch artisanal crop. Volume is key, and many farmers simply experimented this year with a few acres.
- In some ways, this issue is to be expected; the market is brand new and has yet to stabilize. Farmers didn't know what the buyers would want, and sellers have capitalized. Some of that will be fixed in time, but many farmers will certainly be scared off of trying hemp next year, based on this first harvest.

<https://modernfarmer.com/2019/11/thousands-began-farming-hemp-this-year-it-hasnt-gone-how-they-hoped/>

DROP IN CBD PRICES

- Likely the biggest story of 2019 was the sharp decline in CBD prices.
- The year started with prices of over \$4 per percent CBD per pound of biomass and by November those prices fell well below \$2.
- In late November, at one of first public auctions of the crop, farmers hoping for a competitive market found few buyers and prices below 50 cents. Many went home with their crop unsold.



PUSH AHEAD TO 2021-HEMP SHRINKAGE

- This year's U.S. hemp harvest is expected to [shrink by 46%](#) compared to 2021, according to commodity exchange PanXchange.
- According to the Colorado-based exchange, the sharp decrease stems from lower demand for CBD, with close to 75% of CBD extract being used for delta-8 and delta-9 THC products.

In states where recreational or medical marijuana use is legal, cannabis dispensaries offer a wide range of delta-9-tetrahydrocannabinol (delta-9 THC) products. Delta-8-tetrahydrocannabinol (delta-8 THC)—a less potent cannabis compound with similar psychoactive effects as delta-9 THC—is also legal in several states.

<https://www.forbes.com/health/body/delta-8-vs-delta-9/#:~:text=In%20states%20where%20recreational%20or,also%20legal%20in%20several%20states.>

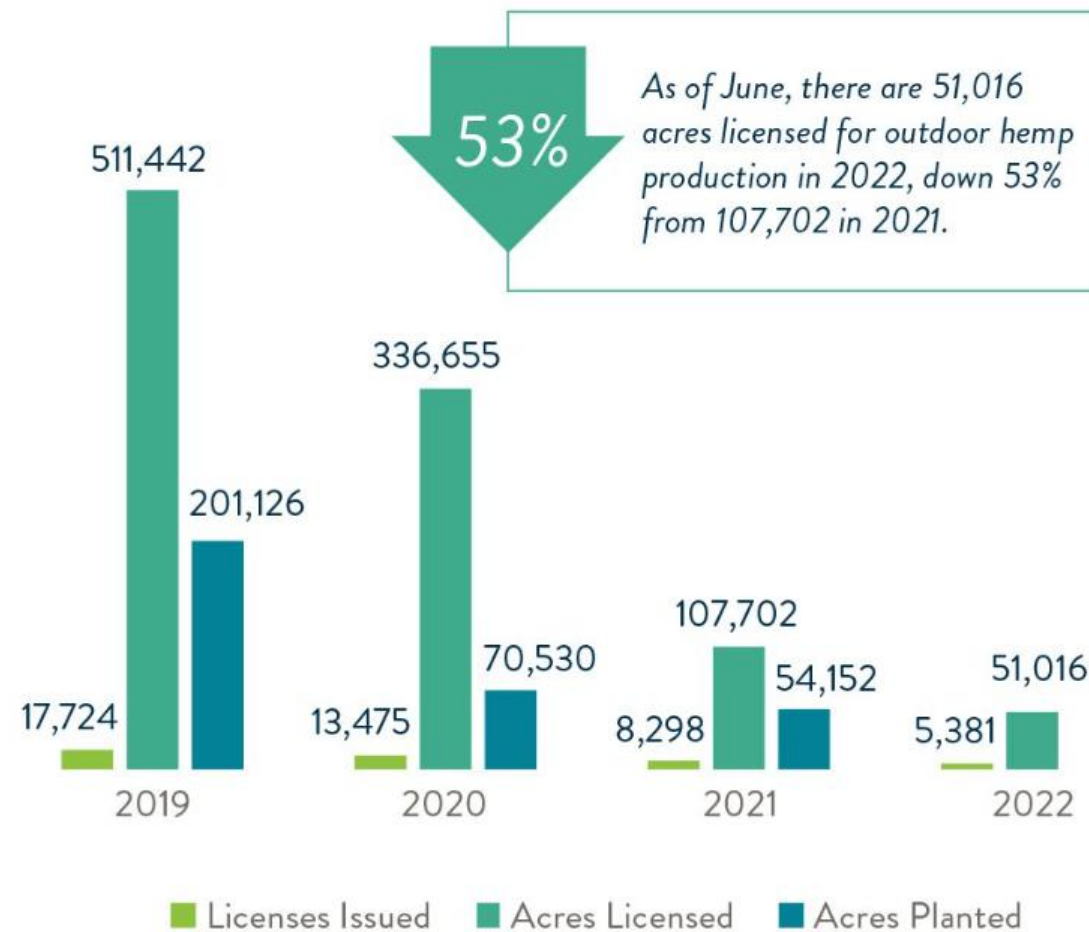
<https://mjbizdaily.com/2022-us-hemp-harvest-projected-to-shrink-by-nearly-half-of-2021/>

ACREAGE OF HEMP- 2021

- About 36,925 acres of hemp were harvested in 2021, according to the U.S. Department of Agriculture’s National Agricultural Statistics Service.

<https://mjbizdaily.com/2022-us-hemp-harvest-projected-to-shrink-by-nearly-half-of-2021/>

2019-2022 U.S. Hemp Acreage



<https://newfrontierdata.com/cannabis-insights/midterm-review-a-2022-u-s-hemp-production-outlook/>

ACREAGE OF HEMP- 2022

- This year, however, only 20,000 acres is expected to be harvested, including:
- 6,400 to 6,800 acres of hemp flower.
- 8,200 to 9,100 acres of hemp fiber.
- 4,800 to 5,000 acres of hemp grain.

CANNABIS

From glut to gloom, hemp farmers in Oregon face uncertain future

✉️ 📺 🐦


By Sheraz Sadiq (OPB)
 March 29, 2022 11:32 a.m.

0:00 / 22:13 🔊 ⋮

Earlier this month, [commissioners in Josephine and Jackson counties declared a state of emergency](#) under a new Oregon law to stop state regulators from issuing new licenses to grow hemp in their counties. State lawmakers passed [House Bill 3000](#) last summer to tighten testing regulations on the hemp industry and boost enforcement activity against [marijuana being grown illegally on licensed hemp farms](#).

The heightened scrutiny of their industry has made some legitimate hemp farmers concerned about the future of hemp in Oregon.

“There’s a pretty deep chill in the market right now,” said Mason Walker, the CEO and co-owner of East Fork Cultivars, which grows nine acres of hemp and one acre of marijuana in Josephine County.



<https://mjbizdaily.com/2022-us-hemp-harvest-projected-to-shrink-by-nearly-half-of-2021/>

BOOM VS BUST

- Jody McGinness, executive director of the Hemp Industries Association, told Denver alt-weekly Westword that [smaller harvests](#) will help cultivators better manage previous oversupply.
- “There was a very large boom-and-bust cycle that took place in the first couple of years of hemp, and that essentially meant that after 2019 and 2020, many, many farmers had leftover stocks of hemp – in some cases, all of their harvests – that they were never able to sell,” McGinness said.

<https://mjbizdaily.com/2022-us-hemp-harvest-projected-to-shrink-by-nearly-half-of-2021/>

SMALLEST HARVEST

- The U.S. hemp industry is headed for its third straight year of contracting production and its smallest harvest since the crop was legalized federally in 2018.

“Four years after the farm bill legalized industrial hemp nationwide, crop acreage is falling as the industry struggles to get regulatory clarity and infrastructure for products derived from the plant’s grain and fiber.”- Steve Davies- Agri-Pulse

<https://www.hempbenchmarks.com/hemp-market-insider/how-much-hemp-has-been-planted-in-2022/>

SMALLEST HARVEST

- A tough market created initially by severe oversupply, then exacerbated in numerous ways by the COVID-19 pandemic and its attendant macroeconomic impacts, has driven many operators from hemp. Some, however, have persisted in the cannabinoid space, while data shows that the frequently-spoken about interest in hemp fiber has translated into some solid gains for this year.

Hemp Heyday for Minnesota Farmers?

Minnesota's surprising legislation portends a new reality for the state's long-struggling hemp farmers.

By Winter Keefer, Twin Cities Business



<https://www.hempbenchmarks.com/hemp-market-insider/how-much-hemp-has-been-planted-in-2022/>

SMALLEST HARVEST

- The U.S. Department of Agriculture Farm Service Agency (USDA FSA) this month released its first batch of [Crop Acreage Data](#) for the 2022 Crop Year, which shows overall hemp production documented by the agency is down significantly from a year ago.

U.S. Hemp Plantings: 2021 - 2022

	2021**	2022***	% Change
Hemp Planting Reports*	1,270	1,310	3%
Planted Acres*	35,367	20,496	-42%

*Excludes "Sets"

**As of January 2022 (final USDA Crop Acreage Data release for 2021 Crop Year)

***As of August 2022

<https://www.hempbenchmarks.com/hemp-market-insider/how-much-hemp-has-been-planted-in-2022/>

OVERALL DECLINE

- Despite more farmers reporting their hemp plantings this year, overall acreage was down significantly from 2021. Furthermore, when data collected by Hemp Benchmarks directly from state agriculture officials for 2021 is combined with USDA planted acreage data, last year's total, documented area planted with hemp approached 42,000 acres, indicating there has actually been more than a 50% decline in U.S. hemp production from 2021 to 2022.

<https://www.hempbenchmarks.com/hemp-market-insider/how-much-hemp-has-been-planted-in-2022/>

BUSINESS > Posted Yesterday at 1:28 PM | Updated December 5 INCREASE FONT SIZE

Connecticut hemp farmers want to be given preference for growing recreational marijuana

Farmers say they're already struggling with low hemp prices and fear losing out to bigger companies when licenses to grow cannabis become available.

BY PAM MCLOUGHLIN HARTFORD COURANT (TNS)

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00:00 06:59

HARTFORD, Conn. — Connecticut hemp farmers looking for higher incomes are working to change the recreational marijuana law to give them better odds – or even assurances – of becoming licensed growers.

Hemp farmers say the current recreational marijuana laws put them at a disadvantage for being chosen to grow marijuana and favor wealthy companies, many of them based out of state.

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Hawaii Grown

Hemp Farmers Are Fed Up With Government Regulations Hampering The Industry's Potential

After exhausting their savings and losing hope for more meaningful legislative relief, some hemp producers in Hawaii may ditch the crop altogether. 29

By Thomas Heaton / May 17, 2022

Reading time: 9 minutes.

Pioneers of Hawaii's latent hemp industry are selling off land, laying off staff and no longer planting after years of waiting for the state to ease regulations that they consider overly restrictive and expensive.

FIBER PLANTINGS



- Fiber was the only type of hemp to see gains in 2022, with more farmers planting more acreage and significantly larger plots on average. While reports from market participants and regulators continue to tell of the need for more processing infrastructure to support this nascent sector, the increase in U.S. fiber hemp production indicates that existing and new processors have been able to establish themselves, expand capacity, and offer contracts to growers.

<https://www.hempbenchmarks.com/hemp-market-insider/how-much-hemp-has-been-planted-in-2022/>

FIBER HEMP PLANTINGS

U.S. Fiber Hemp Plantings: 2021 - 2022

	2021	2022	% Change
Fiber Planting Reports	175	206	18%
Fiber Planted Acres	4,633	8,007	73%
Average Plot Size	26	39	50%
Max Plot Size	537	686	28%

HEMP GRAIN

- Reported plantings for hemp grain have seen significant contraction in 2022, with total planted acreage and average plot size both almost halved from the year before, even though a few more growers reported planting the crop. As we reported earlier this year, market participants told Hemp Benchmarks that high prices for staple crops such as corn, wheat, and soy have made it difficult for a niche specialty crop like grain hemp to get acres in farmers' rotations.

SEED HEMP PLANTINGS



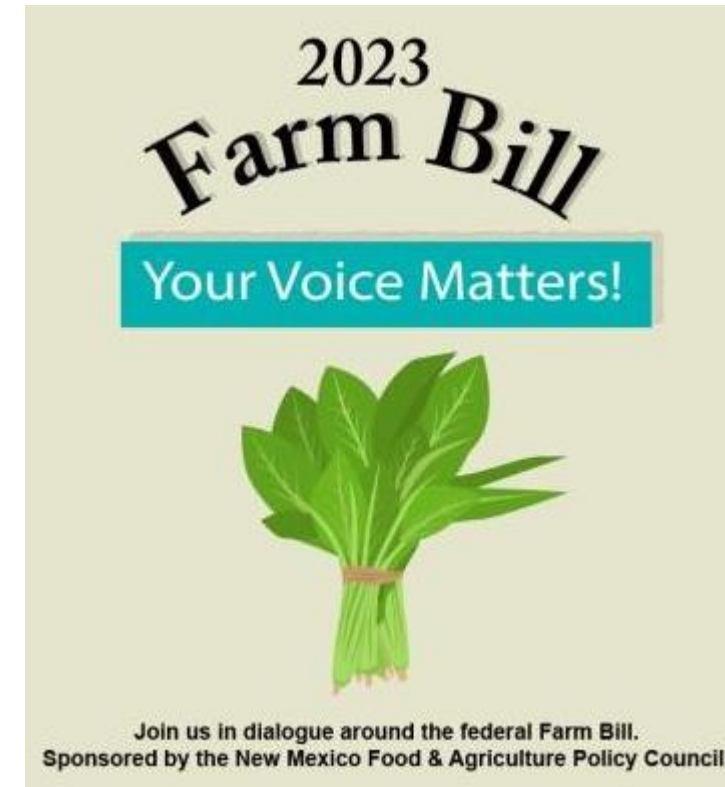
U.S. Grain & Seed Hemp Plantings: 2021 - 2022

	2021	2022	% Change
Grain / Seed Planting Reports	177	182	3%
Grain / Seed Planted Acres	9,273	5,560	-40%
Average Plot Size	52	31	-40%
Max Plot Size	890	854	-4%

NEW FARM BILL

- “While markets for hemp products such as fiber, grain and flower are developing, they are still volatile and uncertain,” Chair Stacey Plaskett (D-USVI) said in her opening remarks. “To support farmers and producers in the ongoing development of this emerging sector, it’s crucial that USDA continue to work to support and expand hemp production and the hemp industry.”
- “As we look towards the next Farm Bill, we can continue to address ongoing issues and provide our farmers, producers, processors and agricultural researchers with the resources they need,” she said.

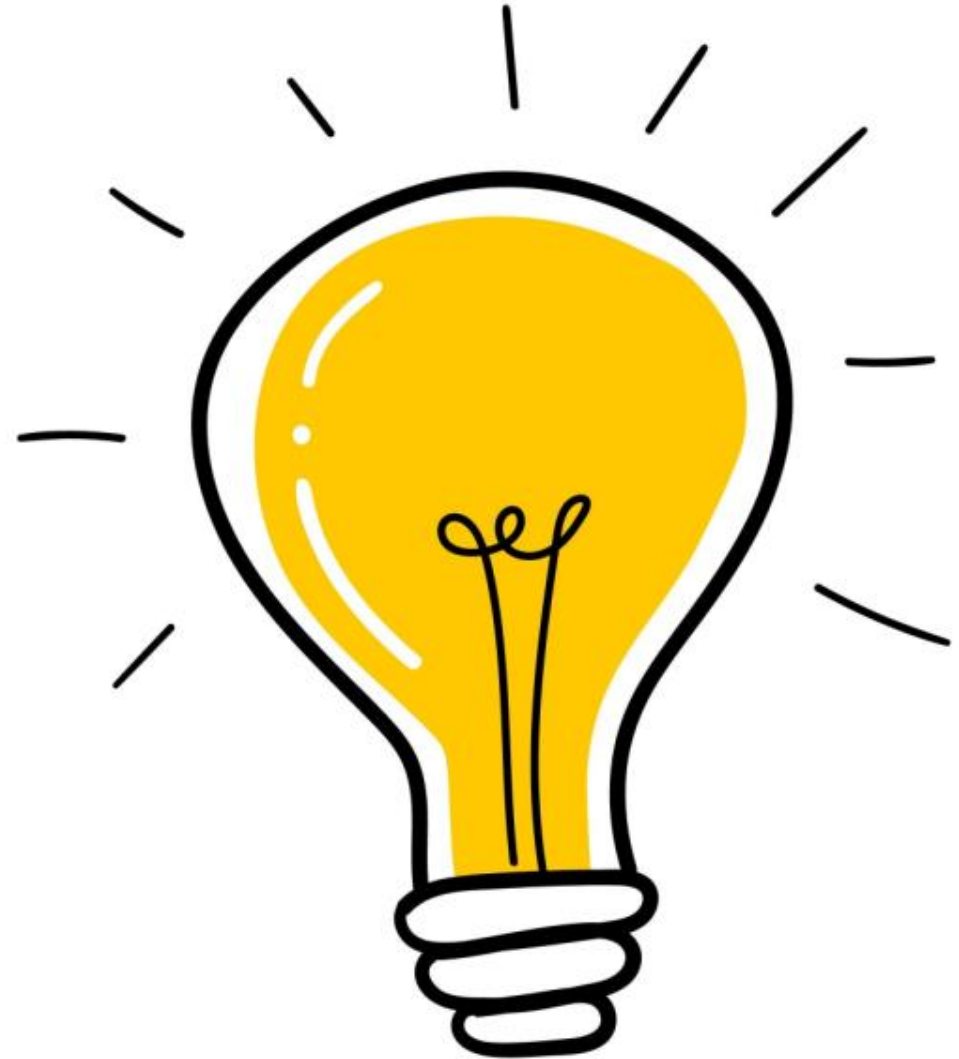
<https://www.marijuanamoment.net/watch-live-congressional-lawmakers-hold-hearing-on-hemp-as-work-begins-on-2023-farm-bill/>



IDEAS FOR STABILIZATION OF HEMP

- HEMP Grain for Aquaculture and livestock- easily digestible protein
- Looking for new markets- safe feeding ingredient
- Clear guidance from the USDA about HEMP Markets and requirements
- New updates in the Upcoming 2023 Farm Bill

- <https://youtu.be/uC8BvTEQLYo>

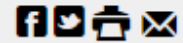


Press Releases

Pingree Unveils Bill to Unburden Hemp Industry

The Hemp Advancement Act of 2022 addresses unresolved issues in the implementation of the 2018 Farm Bill hemp provisions

Washington, February 8, 2022



Tags: [Supporting Maine's Cannabis Economy](#)

WASHINGTON, DC—Today Congresswoman Chellie Pingree (D-Maine) introduced the [Hemp Advancement Act of 2022](#) to improve the 2018 Farm Bill's hemp provisions and provide greater clarity and flexibility to hemp growers and processors. While hemp production was federally legalized by the 2018 Farm Bill, red tape and regulatory uncertainty has hindered industry growth.

“The 2018 Farm Bill laid a legal pathway for hemp production but created overly complicated regulations and hardship for farmers and small businesses in the process. I am introducing The Hemp Advancement Act of 2022 to eliminate unworkable testing requirements, set reasonable THC thresholds for producers and processors while protecting consumers, and end the discriminatory policy that bans people with drug convictions from growing legal hemp,” **said Congresswoman Pingree.** “My bill takes a commonsense, straightforward approach to correct these unintended implementation problems and works to make the hemp industry more profitable and more equitable. My bill also provides a clear path forward for this industry and will support a thriving hemp economy.”

The *Hemp Advancement Act of 2022* would:

- Raise the allowable THC threshold for hemp and in-process hemp extract to make the rules more workable for growers and processors while ensuring that final hemp products sold to consumers aren't intoxicating.
- Remove the requirement that hemp testing occur in DEA-registered laboratories, which is a particular challenge in Maine where there currently aren't any of these facilities.
- End the 10-year ban on people with drug-related felony convictions receiving a hemp license, which disproportionately excludes communities of color from participating in this emerging market.

<https://pingree.house.gov/news/documentsingle.aspx?DocumentID=3970>