



Drug Policy | Report

How a Well-Regulated Texas Hemp Industry Can Promote Public Safety

December 11, 2024 | Katharine Neill Harris, Victoria Jupp, Lisa Pittman

Executive Summary

When Congress passed the 2018 U.S. Farm Bill, legalizing the production and sale of hemp products, it did not predict the large-scale consequences that followed.^[1] Hemp-derived cannabinoids quickly became a massive market, with many products mimicking the effects of marijuana. These impairing hemp products are often cheaper and easier to access than state-legal marijuana products.

The lack of regulation, testing loopholes, and inadequate enforcement have also enabled the spread of harmful products, even permitting the marketing and sale of said products to minors. Reflecting the health risks that arise from the underregulated hemp market, the Texas Poison Center Network reported a 156% increase in cannabinoid exposure cases from 2019 to 2023.^[2]

While some Texas lawmakers would prefer to ban the hemp industry and its products, prohibition would not succeed in eliminating the availability of these products or in protecting the public. Since no quality controls exist for illegal drugs, placing hemp-derived cannabinoids in this category would exempt them from the very regulations needed to ensure their safety.

This report discusses:

- The evolving legal status of hemp-derived cannabinoids in Texas and nationwide.
- Public health risks posed by inadequate regulation.
- Issues that lawmakers should consider when crafting future legislation.

It also provides recommendations for how Texas lawmakers can more effectively regulate the hemp-derived cannabinoid industry to improve product safety and prevent access among minors.

Introduction

The hearty hemp plant is used to make thousands of products, from textiles to food to more sustainable plastics. Despite its many applications, the U.S. has, until recently, heavily restricted hemp production because of the plant's similarity to marijuana. With Congress' passing of the 2018 U.S. Farm Bill, the production and sale of hemp products was legalized, thus eliminating the onerous restrictions on the plant that were unique among industrial crops.^[3] However, U.S. lawmakers did not anticipate the massive consumer market for hemp-derived cannabinoid products, many of which can mirror the effects of marijuana.

From 2020 to 2023, sales of hemp-derived cannabinoids — excluding the non-impairing cannabidiol (CBD) — jumped 1,283% and reached a value of \$2.78 billion by 2023.^[4] Federal legalization of hemp has allowed this market to grow with few constraints on how products are made, marketed, packaged, and sold. In some cases, these products are cheaper and more easily accessible than state-legal marijuana products. In states that still prohibit marijuana, these hemp-derived cannabinoids promise a so-called “legal high.”^[5] Alongside the enormous market growth, the lack of regulation has also enabled the spread of harmful products and, in some cases, allowed the marketing and sale of these products to minors. While states are now trying to rein in their unwieldy hemp markets through regulation, the industry has responded by challenging these tighter restrictions in courtrooms across the country.

The rapid growth of the hemp-derived cannabinoid market amid an uncertain legal environment raises crucial questions about how state lawmakers should approach the regulation of this industry. The ambiguous safety profile of many popular impairing hemp products — indicated by increased consumer reports of adverse health events — heightens the urgency of this issue.

Hemp's Legal Status in the US

Hemp and marijuana are both species of the cannabis plant and naturally produce many of the same compounds. U.S. law separates them by how much delta-9 tetrahydrocannabinol (THC) they contain. Plants with less than 0.3% delta-9 THC by weight are defined as hemp, while those that exceed this threshold are defined as marijuana. The delta-9 THC distinction was originally intended to outlaw marijuana while still permitting production of the versatile hemp crop. Now, this threshold is the source of many legal and regulatory challenges involving cannabis.

Until 2014, the Drug Enforcement Administration (DEA) tightly regulated hemp production, and the legal distinction between hemp and marijuana effectively served its purpose. With the introduction of the 2014 Farm Bill, Congress began loosening hemp restrictions by permitting states to conduct hemp pilot and research programs.^[6] This law also facilitated the growth in products containing CBD. At the same time, hemp remained a Schedule I substance under the U.S. Controlled Substances Act (CSA), and as such, was still subject to many restrictions, including prohibitions on interstate commerce.^[7] With many legal obstacles still in place, only a few states participated in these early pilot and research programs.

The 2018 Farm Bill ushered in far more dramatic change. Congress expanded the definition of hemp, removed it from the CSA, and allowed for its production, manufacture, and sale. The bill's definition of hemp reads as follows: "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."^[8]

As the bill's definition of hemp suggests, any hemp-derived product is legal, as long as it does not exceed the delta-9 THC threshold. Crucially, this definition does not account for THC isomers, such as delta-8 and delta-10, that closely resemble delta-9 in their chemical structure and physical effects.^[9] These THC isomers are legal under this federal definition. The isomer delta-8 THC and other popular cannabis compounds are discussed in further detail in a brief from the Drug Policy Program, published in tandem with this report.^[10]

The U.S. 9th Circuit Court of Appeals confirmed the legality of hemp-derived THC. In a 2022 case, the court concluded that a "straightforward reading" of the 2018 Farm Bill legalized "all products that are sourced from the cannabis plant" and "contain no more than 0.3 percent delta-9 THC."^[11]

The DEA has also affirmed that the 2018 Farm Bill's definition of hemp applies to hemp-derived THC isomers and that therefore they are legal. At the same time, the agency maintains that "synthetically derived" THC isomers are still illegal Schedule I substances.^[12] The DEA characterizes synthetically derived substances as those that do not exist in nature and are wholly human-made in a laboratory. While this distinction may seem clear on paper, it is not so in practice. Some naturally occurring cannabinoids may be synthesized in a lab before they are detected in the cannabis plant. Other cannabinoids may exist naturally but in such low quantities that they require extensive chemical manipulation, blurring the distinction between what may be considered natural or synthetic. Since standard forensic lab testing cannot reliably distinguish between synthetic and non-synthetic cannabinoids, enforcing this legal distinction is difficult.

In September 2024, a 4th Circuit Court of Appeals ruling disagreed with the DEA's position on "synthetic" cannabinoids.^[13] In this case, the cannabinoid was THC acetate ester (THC-O): a THC analog that is most likely not naturally occurring but can be synthesized from hemp.^[14] The DEA has maintained that THC-O is illegal. The 4th Circuit Court concluded instead that THC-O is synthesized from THC and is thus a hemp "derivative," as defined by the 2018 Farm Bill.^[15] In the 4th Circuit Court's opinion, as long as the delta-9 THC concentration does not exceed 0.3% by weight, THC-O is federally legal. While this ruling applies only to THC-O and not to other compounds, it provides a rationale for other courts to adopt a broad definition of hemp.

Hemp's Legal Status in Texas

Following the passage of the 2018 Farm Bill, Texas, like many states, passed its own laws to legalize and regulate hemp products. The 2019 Texas Hemp Farming Act (HB 1325) tasked the Department of State Health Services (DSHS) with regulating consumable hemp products. Since the act's passing, DSHS has tried to further restrict the types of hemp products that are legal in Texas.^[16] Their rulemaking attempts have, so far, been struck down by the courts.

Like federal law, Texas law defines hemp as *Cannabis sativa* L. that has a delta-9 THC concentration below 0.3% by dry weight. Thus, this law's language allows the production and sale of hemp-derived THC isomers and delta-9 THC products that satisfy this legal limit but can still cause impairment. In January 2021, as regulatory loopholes became evident, DSHS changed the definition of THC in the Texas Controlled Substances Act to make all THC isomers illegal, including THC isomers derived from hemp.^[17] The Austin-based hemp brand Hometown Hero filed a lawsuit challenging the methods that the regulatory agency used in the Texas Register to modify the definition of THC, and as of November 2024, an injunction is currently in place allowing the sale of hemp-derived THC isomers.^[18] The Texas Supreme Court is set to hear the case in 2025, likely after the 89th legislative session ends.

The 2019 Texas Hemp Farming Act clearly prohibits the manufacturing and processing of smokable hemp products, but it does not explicitly prohibit their sale. DSHS tried to close this loophole through regulation. In response, hemp businesses filed a lawsuit challenging the legislature's ban on manufacturing hemp smokables and DSHS's ban on selling them. On June 24, 2022, the Texas Supreme Court upheld the legislature's manufacturing ban on smokeable hemp but also ruled that DSHS did not have the authority to enact a rule prohibiting retail sales of these products.^[19]

Thus, Texas consumers and retailers are currently able to buy and sell delta-8 THC and other THC isomers in their many forms. However, the future legality of consumable hemp products depends on current litigation and proposed legislative changes.

Lack of Oversight in Texas' Hemp Industry

Absent Age Restrictions and Ineffective Testing Requirements

Texas' current hemp regulations and enforcement of them are not sufficient to protect minors and adult consumers from potentially harmful products. The most concerning of the regulation's omissions is the lack of age restrictions for purchasing hemp-derived cannabinoids. Texas is not alone; few states had minimum age requirements when these products were initially released in the market. At least 30 states have now enacted age limits, and many industry groups support restricting sales to adults aged 21 and older.^[20]

Implementing a minimum age requirement for purchasing hemp products is a simple, effective way to obstruct the sale of potentially harmful products to minors. Yet, in other areas, regulatory loopholes are more complex, such as with product testing requirements.

For example, DSHS requires hemp used in consumable products to be tested for the concentration of cannabinoids, metals, microbial impurities, pesticides, and residual solvents.^[21] All products must receive a Certificate of Analysis (COA) from an independent laboratory, which is meant to ensure that products meet testing standards and that their composition and labels align. However, in Texas, testing is not required on final products if each hemp-derived ingredient is tested.^[22] This creates the opportunity for products to exceed legal limits on cannabinoids and harmful chemicals.

Mismatched Contents and Ingredient Labels

Furthermore, products are often sold without COAs or with falsified COAs that intentionally misrepresent ingredients and potency.^[23] Falsifying a COA is a felony in Texas, but most violations go undetected. While DSHS has the authority to request COAs and conduct random product inspections, requests and inspections are too infrequent to deter illegal activity.^[24]

Adding to the problem of infrequent DSHS inspections, Texas law does not currently require hemp retailers to test products sold to consumers, nor does it require hemp manufacturers to fully disclose a product's ingredients. The only legally necessary information on a product's label is its delta-9 THC content.^[25] To be sure, good industry actors typically provide full COAs to consumers, but the lack of regulatory clarity on this issue can allow bad actors to mislead consumers and sell questionable goods. Requiring retailers to retest these products offers one strategy toward reducing the number of products with missing or falsified COAs.^[26]

Regulatory gaps in testing, labeling, and verification requirements are more significant for out-of-state products. Many retailers sell products made in other states, including edibles, oils, and virtually all smokables. Currently, these goods can be sold in Texas but cannot be made in Texas. While these products are supposed to comply with state law, testing by state-approved labs is not required. As a result, falsified COAs are common. In some cases, producers in legal marijuana states may off-load surplus, undesirable, or low-quality cannabis products that they cannot sell in their home states to Texas and other states where marijuana is prohibited.

Insufficient Funds for Regulatory Enforcement

In many industries, regulatory enforcement is funded through licensing and other fees. Texas hemp registration fees — \$258 per year for a manufacturing facility and \$155 per year for a retail facility — are too low to fund adequate enforcement.^[27] There are no limits on the number of registrations or retail facility locations, and as of April 2024, Texas had over 7,000 registered hemp dispensaries.^[28] During his testimony at the Texas Senate State Affairs Committee's interim hearing on hemp-derived cannabinoids in May 2024, Timothy Stevenson, the deputy commissioner of DSHS's Consumer Protection Division, stated that the agency has only six employees to oversee these stores, and that it would take them five years to get to each retailer.^[29]

The Texas Office of the Attorney General could assist DSHS with enforcement by pursuing and penalizing businesses that violate consumer protection laws. In Nebraska, Missouri, and Connecticut, hemp retailers have been sued by the state for selling illegal and improperly labeled products, engaging in unfair and deceptive trade practices, marketing to minors, and making false product claims.^[30] Texas Attorney General Ken Paxton, who has sued six cities over voter-approved marijuana decriminalization initiatives, has not as of yet taken action against the state's underregulated hemp industry.^[31]

Consumer Risks of Underregulated Hemp Products

As the popularity of hemp-derived cannabinoids has increased, so too have adverse health incidents from exposure to these products.

The National Poison Data System reported approximately 9,800 cases related to delta-8 THC exposure from 2021 to 2024, with effects that ranged from hallucinations to loss of consciousness.^[32] According to the Texas Poison Center Network, cannabinoid exposure cases increased from 923 in 2019 to 2,363 in 2023.^[33] Nationally and in Texas, more than half of such cases involve individuals younger than 20 and roughly a third involve children younger than 6 as of 2024.^[34]

As children and teens account for a majority of all poison center calls each year, the overrepresentation of these age groups is not unusual in cannabinoid-related cases.^[35] Hemp-related calls also pale in comparison to the number of exposure cases involving e-cigarettes.^[36] Still, the increase in events related to cannabinoid exposure is cause for concern. Cases involving young children are typically unintentional exposures and most likely reflect the absence of child-resistant packaging on the market as well as improper storage practices among adult consumers.^[37] Cases involving teens are more often intentional. While some teens may obtain hemp-derived cannabinoid products from adults in the home, many states, including Texas, do not prohibit minors from purchasing these products.

Frequent exposure and easy access to any substance can lead to curiosity and greater use. Monitoring the Future Study — a national, classroom-based survey that has been asking high schoolers about their substance use since 1975 — added questions about delta-8 THC use in 2023. An analysis of that survey found that 11.4% of 12th graders reported past-year delta-8 THC use, with prevalence being greater among adolescents living in states where marijuana is prohibited and delta-8 THC products are legal and underregulated.^[38]

While no THC products are safe for minors, many of the products available today may not be safe for adults either. Most hemp-derived cannabinoids undergo some degree of chemical manipulation. The long-term impacts of this process on human health are not yet known. Product quality is heavily dependent on the ingredients used in chemical processing and individual manufacturers' skill and diligence.

The nascent and rapidly evolving cannabinoid industry needs clear safety standards and consistent oversight. However, both are rare in the consumer hemp marketplace. Numerous analyses have found products containing lead, mold, pesticides, and other harmful additives.^[39] Products may have inconsistent and unreliable dosages, and can often be more potent than their labels and dosages indicate.^[40] Some of the stronger products on the market are legal because of federal and state loopholes, while others are potentially illegal despite their labeling. A recent analysis commissioned by Texas Monthly examined eight products sold in Texas and found that all of the samples tested contained delta-9 THC in quantities far exceeding the legal limit of 0.3% concentration by dry weight.^[41]

Just as some businesses that sell illegal products effectively bypass weak regulatory enforcement, others have evaded laws meant to protect consumers from false and misleading advertising. Some marketing strategies

appear to target minors with colorful packaging and imagery that mimics well-known candy and snack food. Advertisements that depict cannabinoid use as gratifying and glamorous can lead to increased consumption, which is associated with poor mental health outcomes for some vulnerable populations, particularly adolescents and individuals with mental health issues.^[42] Alternatively, promoting hemp-derived cannabinoids as products related to health and wellness may minimize their potential to cause adverse or unpleasant effects.

Since Congress legalized hemp in 2018, the Food and Drug Administration (FDA) has issued numerous warning letters to companies using unverified health claims to market hemp-derived cannabinoids.^[43] These letters are intended to prompt voluntary industry compliance and do not require the FDA to take further action, making them a relatively limited enforcement mechanism.^[44] However, more recently, the FDA and the Federal Trade Commission have issued joint cease-and-desist letters to companies selling delta-8 THC products in packaging considered appealing to minors, which possibly signals enhanced enforcement efforts.^[45]

Texas' Restrictive Medical Marijuana Program

The hemp industry is inadvertently filling a need not met by Texas' limited medical marijuana program. Texas' Compassionate Use Program (CUP) allows residents with qualifying conditions access to marijuana with delta-9 THC in concentrations of less than 1% by dry weight. The Department of Public Safety (DPS) has only licensed three organizations to provide medical marijuana, which are all based in Central Texas, leaving residents in the southern and western parts of the state without access. While more than 90,000 patients have registered for the CUP, just over 29,000 are currently active, and patients are filling prescriptions at a decreasing rate as of 2023.^[46] Dispensing organizations attribute the CUP slowdown to the growth of the less regulated hemp market.^[47]

In 2023, to improve the CUP, Texas lawmakers attempted to expand the list of qualifying conditions to include chronic pain and adjust the way delta-9 THC content is measured. The bill (HB 1805) passed the Republican-controlled House but did not receive a hearing in the Senate.^[48] In October 2024, DPS released a report on the CUP produced by an outside consulting firm, Weeds LLC. The group concluded that the CUP is not sufficient to meet patient needs. To mitigate accessibility issues, the report's recommendations for the CUP included expanding the number of dispensing organizations as well as increasing the number of licensed locations that each dispensing organization can legally operate, as the current limit is one.^[49] DPS has stated it would not consider any program changes until after the 2025 session.^[50]

Many people who qualify for the CUP or who would qualify if chronic pain was included have turned to the hemp industry because these products not only are cheaper and more convenient but also offer a greater range of ingredients and potency. Significantly, these products are not subject to the same safety standards as those sold through the CUP. The state's overly restrictive medical marijuana program and its insufficient oversight of the hemp market compel patients to decide between product access or product safety.

Risk of Arrest for Sellers and Consumers of Legal Hemp

Another consequence of Texas' imprecise hemp policies is that individuals who buy products sold in state-licensed stores can still be arrested for illegal cannabis possession. This happens, in part, because of confusion among law enforcement officers about what forms of cannabis are legal and illegal, with inadequate testing equipment adding to this uncertainty.

For example, police field testing kits can detect the presence of THC in a vape pen, but they cannot differentiate between legal delta-8 THC and illegal delta-9 THC.^[51] Many local departments have stopped pursuing cannabis offenses for this reason, but other agencies will proceed with the arrest and send the material to a state crime lab for further testing.

If additional testing confirms that the product in question is legal, charges against an individual are dropped; however, this does not erase the ordeal of the arrest.^[52] If testing shows that a product exceeds the state's 0.3% delta-9 THC threshold, individuals can face harsher consequences, even though they purchased the product with the good-faith assumption that it was legal.^[53] While Texas allows minors to purchase hemp products, teenagers suspected of possessing illegal THC at school can face expulsion and other severe punishments before lab testing confirms a product's contents.^[54]

How Banning Hemp-Derived Cannabinoids Could Raise Consumer Risks

The dizzying growth of hemp-derived cannabinoid products and the corresponding rise in consumer safety concerns have led some Texas lawmakers to support banning the entire hemp industry. While prohibition may seem like the most straightforward response, this action would very likely fail — both in eliminating widespread access to hemp-derived cannabinoids and in protecting the public.

First, responsibility for enforcing a ban on hemp-derived cannabinoids would likely fall to DPS and local police departments. These agencies already struggle to solve serious crimes, reflected in declining clearance rates for most violent offenses from 2019 to 2023 (Table 1).^[55] The energy and funds spent enforcing new drug prohibitions would divert resources from other crime-fighting activities and worsen the state's unsolved crime problem. While the legislature could increase police funding to enforce a hemp ban, any additional taxpayer dollars spent in the name of public safety would be better used bolstering law enforcement's response to violent crime.

Table 1 — Texas Law Enforcement’s Clearance Rate for Violent Offenses in 2019 and 2023

Offense Type	Clearance Rate	
Year	2019	2023
Murder	61%	53%
Rape and Sexual Assault	23%	15%
Human Trafficking	42%	34%
Aggravated Assault	40%	37%
Robbery	19%	20%

Source: Texas Department of Public Safety (DPS), “Crime in Texas 2023.”

Second, prohibiting hemp-derived cannabinoids would not only siphon resources away from more critical public safety initiatives but also increase health risks for consumers. There are no quality controls for illegal drugs, and thrusting hemp-derived cannabinoids into this category would exempt them from the very regulations needed to ensure their safety. Prohibition would cause the most law-abiding hemp manufacturers and retailers — those who are more likely to follow stricter safety guidelines — to exit the market, leaving only less scrupulous actors to supply Texans’ demand for hemp-derived cannabinoids. Criminal organizations may view newly banned hemp compounds as a lucrative opportunity and move to supply consumer demand that legally compliant businesses could no longer meet. The involvement of such organizations could also introduce violence into a market that thus far has operated without such issues.^[56]

Recommendations for Texas Lawmakers

1. Limit minors' access to consumable hemp products.

- Prohibit the sale of hemp-derived cannabinoids to individuals under the age of 21.
- Require purchasers to provide proof of age by government-issued ID or other official documentation.
- Require hemp products that cause impairment to be kept behind store counters.
- Require hemp products to have child-resistant packaging.
- Limit new hemp retail locations and outdoor advertising within 1,000 feet of K–12 schools.

2. Place a milligram cap on the total amount of THC that one serving of a consumable hemp product can contain.

- Use total THC as the metric of measurement to more accurately reflect a product's potency as it accounts for the presence of THC isomers other than delta-9.
- Simplify testing strategies by using a total THC milligram cap, which in turn can improve product safety and reliability.

3. Strengthen safety standards for consumable hemp products.

- Clarify that testing for cannabinoid concentrations and the presence of heavy metals, molds, pesticides, and residual solvents must be conducted on final products.
- Clarify that the full product COA must be made available to consumers.
- Require product homogenization that ensures uniform cannabinoid distribution in each unit of a product.
- Prohibit the combination of psychoactive substances, such as alcohol and tobacco, with hemp-derived cannabinoids in a single product.
- Require retailers to test a portion of their inventory as an additional safeguard against falsified COAs and potentially harmful products.

4. Improve advertising standards with a focus on public health.

- Prohibit the use of labeling or packaging designs that appeal to individuals under the age of 21, especially imagery, branding elements, or themes that are commonly associated with youth culture or are known to attract minors.
- Restrict use of unverified health claims on market products.
- Require product marketing and packaging materials to include health warnings and indication of impairing effects.

5. Increase resources and funding for regulatory oversight.

- Direct regulatory agencies to adopt enhanced safety standards for hemp-derived cannabinoid products, such as the recommendations listed above.
- Provide sufficient resources for regulatory agencies to investigate incomplete, missing, or falsified COAs.
- Pursue legal action against businesses that sell illegal products or engage in false and deceptive trade practices.
- Fund enforcement activities with increases in licensing fees for hemp retailers and modest increases in retail sales taxes of these products.
- Consider the Texas Alcoholic Beverage Commission's (TABC) licensing and permit structure as a model with the aim of reducing the number of bad actors and more equitably funding enforcement efforts through a tiered cost model.

6. Decriminalize possession of small amounts of cannabis flower and cannabis concentrates.

- Halt the arrest and prosecution of Texans for possessing products they legally purchased from state-licensed hemp retailers.
- Remove the burden of testing suspected marijuana samples to redistribute crime lab resources to solving serious crimes.

7. Expand the Compassionate Use Program (CUP) to make medical marijuana more accessible for patients in need.

- Switch from weight-based measurement of medical marijuana to volumetric dosing.
- Add chronic pain as a qualifying condition for the CUP.
- Authorize the Texas Health and Human Services Commission to add qualifying conditions.
- Provide DPS with guidance to improve the CUP by expanding the number of dispensing organizations and increasing the number of licensed locations that each dispensing organization can operate.

Conclusion

The overarching goal of cannabis regulation should be to minimize the public health harms that may come with greater incidences of heavy cannabis use among minors as well as the population at large. This goal need not — and should not — come at the expense of criminalizing an activity in which millions of Americans engage, one that can be safely and effectively regulated.

Rather, mitigating public health risks requires a thoughtful regulatory approach that enforces product safety standards, nudges consumers and producers toward less potent products, restricts marketing and advertising to minors, and educates the public on the potentially adverse effects of frequent or high-dosage use of high potency cannabis. While federal leadership is urgently needed on this issue, states, such as Texas, can work toward more sensible cannabis policy that does not entail the harms of prohibition nor the harms of allowing private industry to profit from encouraging heavy use of a powerful plant.

Notes

[1] Agriculture Improvement Act of 2018, Pub. L. No. 115-334, 132 Stat. 4490, <https://www.congress.gov/bill/115th-congress/house-bill/2>.

[2] Texas Department of State Health Services (DHS), “Cannabinoid-Related Poison Center Calls,” accessed September 10, 2024, <https://healthdata.dshs.texas.gov/dashboard/drugs-and-alcohol/Cannabinoid-related-poison-center-calls>.

[3] Agriculture Improvement Act of 2018.

[4] Noelle Skodzinski, “How Big Is the U.S. Market for Delta-8 THC and Other Intoxicating Hemp-Derived Cannabinoids?,” *Cannabis Business Times*, March 6, 2024, <https://www.cannabisbusinesstimes.com/business-issues-benchmarks/cannabis-sales-trends/news/15686872/how-big-is-the-us-market-for-delta-8-thc-and-other-intoxicating-hemp-derived-cannabinoids>.

[5] Dana G. Smith, “How Delta-8 THC Works, and Why Experts Are Worried About It,” *New York Times*, last modified July 25, 2022, <https://www.nytimes.com/2022/07/01/well/mind/delta-8-thc-marijuana.html>.

[6] Agricultural Act of 2014, Pub. L. No. 113-79, 128 Stat. 649, <https://www.congress.gov/bill/113th-congress/house-bill/2642>.

[7] U.S. Drug Enforcement Administration (DEA), “The Controlled Substance Act,” accessed November 2024, <https://www.dea.gov/drug-information/csa>.

[8] Agriculture Improvement Act of 2018.

[9] National Institute of Justice, “All Is Not Pot That’s Green: An Overview of THC Isomers,” accessed October 21, 2024, <https://nij.ojp.gov/events/all-not-pot-thats-green-overview-thc-isomers>.

[10] Katharine Neill Harris et al., “Breaking Down Popular Cannabis Compounds,” Rice University’s Baker Institute for Public Policy, December 6, 2024, <https://doi.org/10.25613/DOGY-HZ81>.

[11] *AK Futures LLC v. Boyd Street Distro LLC*, No. 21-56133 (9th Cir. 2022), <https://cdn.ca9.uscourts.gov/datastore/opinions/2022/05/19/21-56133.pdf>.

[12] DEA, “Implementation of the Agriculture Improvement Act of 2018,” *Federal Register* 85, no. 51639 (August 21, 2020), 51639–45, <https://www.federalregister.gov/documents/2020/08/21/2020-17356/implementation-of-the-agriculture-improvement-act-of-2018>.

[13] *Tonya Anderson v. Diamondback Investment Group, LLC*, No. 23-1400 (4th Cir. 2024), <https://www.ca4.uscourts.gov/opinions/231400.P.pdf>.

^[14] Neill Harris et al., “Breaking Down Popular Cannabis Compounds.”

^[15] Tonya Anderson v. Diamondback Investment Group, LLC.

^[16] H.R. 1325, 86th Leg., Prior Sess. (Tex. 2019), <https://legiscan.com/TX/bill/HB1325/2019>.

^[17] Michael Marks, “How a Quiet Rule Change Made Delta-8 Products Illegal in Texas,” *Texas Standard*, October 22, 2021, <https://www.texasstandard.org/stories/how-a-quiet-rule-change-made-delta-8-products-illegal-in-texas/>.

^[18] Hometown Hero, “Discussing Our Texas Delta-8 Lawsuit & Hemp THC Legality,” February 26, 2023, <https://hometownhero.com/learn/texas-delta-8-lawsuit-2023/>; Jacob Vaughn, “Delta-8 THC Ban Is Headed to the Texas Supreme Court,” *Dallas Observer*, August 26, 2024, <https://www.dallasobserver.com/news/texas-delta-8-thc-ban-is-officially-headed-to-the-texas-supreme-court-20329565>.

^[19] Texas Department of State Health Services. v. Crown Distributing LCC., No. 21-1045647 (Tex. 2022), <https://casetext.com/case/tex-dept-of-state-health-servs-v-crown-distrib-4>.

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^[21] 25 Tex. Admin. Code §300.301 (2020), [https://texreg.sos.state.tx.us/public/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=25&pt=1&ch=300&rl=301](https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=25&pt=1&ch=300&rl=301).

^[22] 25 Tex. Admin. Code §300.303 (2020), [https://texreg.sos.state.tx.us/public/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=25&pt=1&ch=300&rl=303](https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=25&pt=1&ch=300&rl=303).

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