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# A FRAMEWORK FOR FEDERAL AND STATE HEMP-DERIVED CANNABINOID REGULATION

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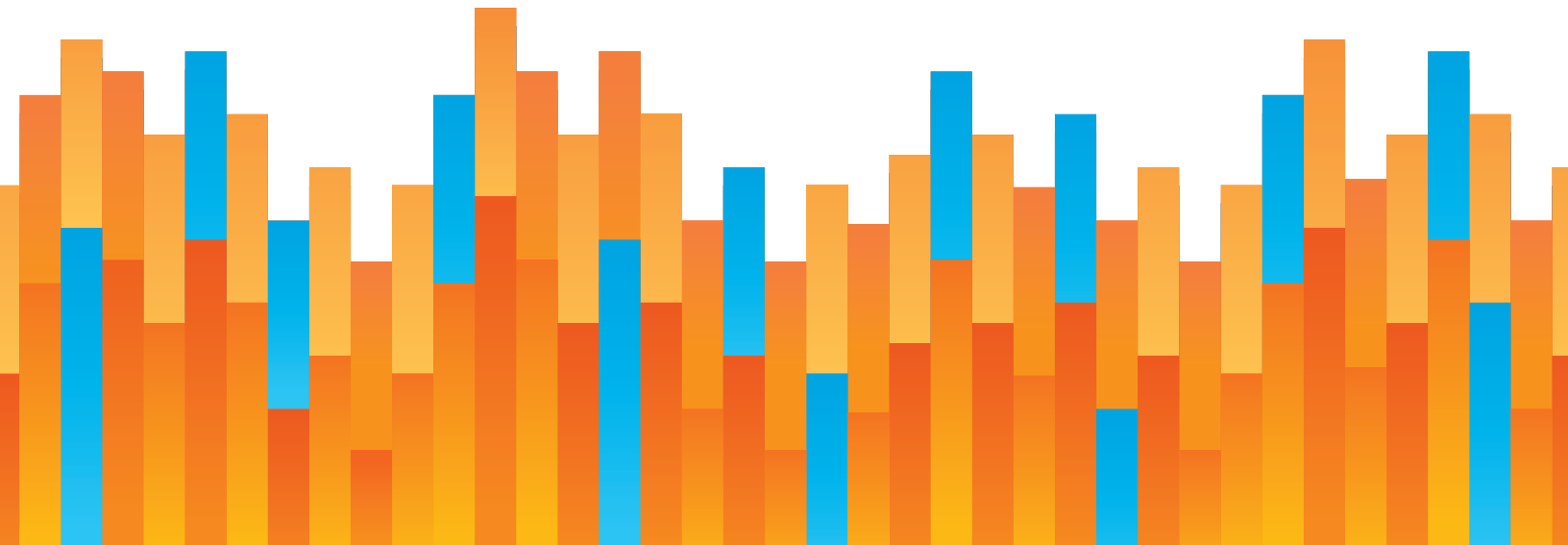


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# EXECUTIVE SUMMARY

In the wake of the 2018 Farm Bill, which legalized hemp and its derivatives across the country, an unexpected flood of hemp-derived cannabinoid products hit the market and has sparked a whirlwind of interest—and concern—among state lawmakers. Unlike marijuana, which for now remains a Schedule I controlled substance under federal law, hemp-derived cannabinoids, such as cannabidiol (CBD) and delta-8 THC, occupy a murkier legal and regulatory landscape. This ambiguity, along with a lack of guidance from federal authorities, has left states grappling with how to ensure consumer safety, prevent underage access, facilitate interstate commerce, and support existing marijuana markets.

The growing popularity of hemp-derived products has stimulated significant legislative attention in recent years, with over 90 regulatory proposals introduced in state legislatures in 2024 alone and 14 states adopting restrictions or prohibitions to some degree. A small but growing number of states have sought to legalize and regulate intoxicating hemp derivatives as general consumer goods, similar to alcoholic beverages or tobacco, or by incorporating them into their existing regulations governing medical or recreational marijuana. Yet, the continued proliferation and evolution of hemp-derived cannabinoid products has exposed significant gaps in existing regulatory paradigms.

State regulations governing hemp products vary widely and are unevenly enforced, creating a patchwork of rules that can change dramatically from one state to the next. Unlike the market for marijuana, which has remained largely intrastate due to federal prohibition, federally-legal hemp products can cross state lines more freely. This has resulted in a

marketplace where consumers face an increasingly confusing array of products of uncertain quality while businesses must navigate a shifting and uncertain regulatory environment. Additionally, lawmakers and regulators must continually update or amend rules in response to the emergence of new products, consumer behaviors, and industry dynamics.

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This piecemeal approach leaves consumers at risk, strains state resources, and hampers the ability for even willing actors to comply with state rules. This paper advocates for a cohesive approach to regulating hemp cannabinoid products that includes action by both federal and state policymakers.

Our paper presents a series of recommendations for both federal and state authorities aimed at harmonizing standards across testing, labeling, packaging, and taxation for all cannabis products. By implementing these measures, states can enhance compliance and market competitiveness, reduce costs, and ensure consumer safety as both marijuana and hemp markets evolve.

Ensuring consumer safety and minimizing youth access to potentially intoxicating products can also be achieved through state regulations that differentiate between high-THC and low-THC hemp products. We recommend states adopt labeling standards by which high-THC product labels must provide detailed potency disclosures and risk warnings, while low-THC products may adhere to general consumer goods standards. Consistent advertising restrictions across all cannabis products will also avoid bias based on the source of cannabinoids.

The disparity in tax and regulatory burdens between marijuana and hemp products also fosters an uncompetitive landscape between the two product categories. High costs in state-regulated marijuana markets, such as those in California, push consumers toward cheaper alternatives, including both illicit marijuana or less-regulated hemp. To level the playing field, states should reduce the tax and compliance costs imposed on legal

marijuana businesses, aligning them more closely with those for hemp producers. Imposing a single, uniform excise tax on all intoxicating cannabis products would simplify the tax system and reduce incentives for consumers to seek cheaper, illicit options.

Restrictive licensing frameworks for marijuana businesses also contribute to its competitive disadvantage compared to hemp, limiting market entry, innovation, and consumer access, with the artificial scarcity raising prices and pushing consumers toward alternatives. In contrast, intoxicating hemp products can be produced in any state, shipped to a variety of retailers, and sold directly to consumers even in states without legal marijuana sales. This dynamic distorts the market in favor of hemp products, sometimes sold under transient branding and lacking clear originating information for the producer, which consumers might not choose if legal marijuana were more affordable or available.

Regulators ought to be aware of who is selling intoxicating cannabis products, but regulatory schemes should not push market participants toward the hemp market merely because marijuana licensing is too costly or unavailable. We recommend states adopt a middle ground approach between overly-restrictive marijuana licensing regimes and the lack of any such framework for hemp. In particular, we suggest state law at least require hemp producers to register with state regulatory authorities while also drastically reducing both financial and non-financial barriers to entry into the marijuana market. This may include allowing any retailer who can demonstrate competence over inventory management for age-gated products to become eligible to retail both hemp cannabinoid and marijuana products.

> *By adopting a more unified and flexible approach to both hemp and marijuana regulation, states can enhance market competitiveness, reduce costs, and protect consumers.*

Finally, to fully realize the potential of a national cannabis market, particularly in light of the emerging hemp derivatives sector, states must also permit the interstate sale of marijuana products. As these authors argued in a prior paper, existing bans on out-of-state marijuana products are unconstitutional under the Commerce Clause and exacerbate the competitive advantage hemp currently enjoys. State lawmakers should agree to remove

bans on the import of marijuana and allow state-licensed producers to export to purchasers in other states. In addition, lawmakers should take steps to align packaging, labeling, and testing protocols to facilitate a robust and legal interstate market.

The rapidly evolving cannabis industry presents both opportunities and challenges for state regulators. By adopting a more unified and flexible approach to both hemp and marijuana regulation, states can enhance market competitiveness, reduce costs, and protect consumers. Embracing these recommendations will position states to lead in the burgeoning cannabis sector while ensuring consumer safety and market integrity.

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PART 1

# INTRODUCTION

The regulatory landscape for hemp and hemp-derived products in the United States is currently undergoing significant changes as lawmakers at the state and federal levels, informed by industry stakeholders, struggle to develop sensible regulations for this burgeoning sector. Since the 2018 Farm Bill federally legalized the cultivation of hemp and differentiated it from marijuana by defining hemp as *cannabis sativa* plants in which delta-9 tetrahydrocannabinol (THC) constitutes no more than 0.3% of its total weight, the hemp industry has expanded rapidly.

However, the growth of this emergent industry has created competition for existing state-licensed marijuana products, introduced intoxicating cannabinoids into states that do not permit marijuana for medical or recreational use, and posed new questions about the regulation of interstate trade. There is ongoing debate about which hemp-derived products are federally legal, and there is minimal federal guidance about how these products should be regulated with regard to content, marketing, or age restrictions. Several states have iterated regulatory frameworks for these products, but many states have not.

Some states have unsuccessfully attempted to block the transport of these federally legal products through their borders. Others have attempted to regulate hemp-derived products as if they were federally illegal marijuana. Simultaneously, Congress has failed to advance legislation that would create a federally legal market for marijuana—a *de facto* signal that

Congress's preferred pathway to nationally legalize intoxicating cannabinoids is through the hemp market. Moreover, Congress has evinced little willingness to provide additional guidance about how interstate commerce in these substances should be regulated. This lack of guidance largely leaves states to determine how best to regulate the hemp market.

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In many respects, hemp-derived cannabinoid products hold a distinct advantage over state-regulated marijuana products. Producers do not face exorbitant licensing fees and do not enjoy exclusivity of licensing, state excise taxes are not excessive, and, as producers of federally legal products, hemp companies are permitted to claim certain deductions under the "Ordinary and Necessary" standard of the federal income tax. State-licensed marijuana companies, by contrast, are forbidden by section 280E of the Internal Revenue Code from deducting business expenses from their federal income taxes beyond the costs directly related to the acquisition of inventory.[1] In the absence of specific state restrictions, sales can be made by ordinary retailers like gas stations and corner stores, and hemp products can even be sold online.

At the same time, hemp-derived cannabinoid products are sold under a variety of labels that may change frequently, and consumers may have little information about producers of these products to pursue recourse for prospective fraud or damages. Absent state laws that specifically age-gate the sales of these products, they are not subject to age restrictions, and minors may legally gain access to intoxicating substances. There are legitimate public policy challenges within the hemp market that impede proper market function and producer accountability to consumers.

[1] 26 U.S.C. section 280E. Marijuana sellers may deduct only the cost of goods sold, but if the federal government reschedules marijuana to Schedule III, this extra tax burden will disappear.

> *... hemp-derived cannabinoid products are sold under a variety of labels that may change frequently, and consumers may have little information about producers of these products to pursue recourse for prospective fraud or damages.*

Emerging competition from the hemp market also offers an opportunity for states that authorize a commercial market in marijuana to reconsider policies that artificially inflate the prices of state-licensed marijuana products above those of competing hemp-derived cannabinoid products. Ultimately, states authorizing a commercial marijuana market should work to increase market dynamism by reducing barriers to entry, along with regulatory and tax costs, to more closely align the cost structure within these markets with that of emergent hemp-derived competition. The policy alternative, prohibition and recriminalization of that competition, would be a step backward.

This study develops a novel proposed framework to guide both state and federal policymakers in both the legislative and executive branches in the regulation of hemp products. Part 2 provides important background on the emergence of the hemp industry and how it differs from the state-regulated marijuana industry. Part 3 elaborates further on this background by concentrating on federal legislative developments regarding hemp products and ongoing debates regarding a prospective renewal of the federal Farm Bill and existing state efforts to regulate hemp markets. Part 4 develops a recommended federal framework for the regulation of hemp products. Part 5 recommends an approach for states to regulate hemp products. Parts 4 and 5 recognize that the establishment of certain federal standards would be conducive to the regulation of an orderly market at the state level, but also provide recommendations for state collaboration even in the absence of federal action. Part 6 provides recommendations for states to follow to better harmonize their regulatory approaches to intoxicating hemp products and state-legal marijuana products to place these groupings of products on a more even playing field. Part 7 concludes.

PART 2

# BACKGROUND

The 2018 Farm Bill, a pivotal legislative milestone, effectively legalized hemp by drawing a distinction between marijuana and hemp based on delta-9 THC concentration. Under this legislation, hemp plants, any part of the plant, and all derivatives from the plant containing less than 0.3% delta-9 THC on a dry weight basis were excluded from the Schedule I designation under the Controlled Substances Act, while "marihuana" remained classified therein. By shifting regulatory oversight of hemp away from the Drug Enforcement Administration (DEA), the Farm Bill redefined hemp as primarily an agricultural concern and federally legalized the cultivation, possession, and cross-state transportation of hemp. The statutory emphasis on delta-9 concentration resulted in a *de facto* decriminalization of hemp and hemp-derived cannabis products at the federal level, provided their delta-9 THC content remained below the 0.3% threshold.

However, the ambiguity within the law and delayed regulatory oversight by the federal agencies now responsible for hemp-derived goods, namely the U.S. Department of Agriculture (USDA) and the Food and Drug Administration (FDA), facilitated the proliferation of products containing delta-9 and tetrahydrocannabinols (THC) other than delta-9. Among these are delta-8 and delta-10 THC products, which are also intoxicating and which have raised concerns among many state legislators for the lack of oversight governing

production processes and formulation, youth access, and their potential public health impact.[2]

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States have taken or considered various approaches to regulating "intoxicating hemp" products, beginning with Michigan, which enacted a law in 2021 requiring producers of intoxicating hemp products to comply with that state's recreational marijuana laws. Broadly, state lawmakers have taken three approaches to regulating hemp-derived cannabinoids. Some, like Minnesota, have legalized hemp-derived cannabinoids, such as delta-8 THC, and do not restrict their sale to cannabis-specific retail locations.[3] Others, like Michigan, legalized hemp-derivatives and regulate those with intoxicating levels of THC under their existing marijuana regulatory frameworks. Still more, such as Colorado, prohibit the sale of all hemp-extracted cannabinoid products, except for delta-9 THC. Interestingly, states that legalized marijuana for medical or adult-use have been more inclined to ban or severely restrict the sale of hemp-derived cannabinoid products, while those states that continue to prohibit marijuana have been more reluctant to enact restrictions on hemp-derived cannabinoids.[4]

These regulatory responses aimed at intoxicating hemp derivatives stem from justified concerns that unregulated products pose quality and safety concerns for consumers.

2 Lexi Sutter, "Illinois lawmakers could ban unregulated hemp products like Delta-8," NBC Chicago, 28 May 2024, www.nbcchicago.com/news/local/chicago-politics/illinois-lawmakers-could-ban-on-unregulated-hemp-products-like-delta-8/3448676 (2 Aug 2024).

3 "Minnesota OKs hemp-derived delta-8 and delta-9 THC, bans other synthetics," Hemp Today, 6 June 2023, hemptoday.net/minnesota-oks-hemp-derived-delta-8-and-delta-9-thc-bans-other-synthetics (15 May 2024). See also: Minnesota Department of Health, "Hemp-Derived Products: Information for Businesses," www.health.state.mn.us/people/cannabis/edibles/businessinfo.html (8 July 2024).

4 John Schroyer, "Delta-8 Legality a National Patchwork of Irony," Green Market Report, 23 Oct 2023, www.greenmarketreport.com/delta-8-legality-a-national-patchwork-of-irony (8 July 2024).

However, balancing those concerns against the desire to support industrial hemp cultivation and production has presented many challenges, evident in litigation and implementation hurdles.[5] For instance, Washington state's blanket prohibition on THC-containing hemp products inadvertently ensnared hemp-derived cannabidiol (CBD) items with only trace THC levels, eliminating an essential non-intoxicating end product upon which hemp cultivators can sustain profits, potentially devastating the hemp cultivation industry and driving consumers toward unregulated channels.[6]

> *As pressure mounts for regulatory intervention at both state and federal levels, policymakers must heed the lessons of past failures, particularly the pitfalls of prohibition.*

As pressure mounts for regulatory intervention at both state and federal levels, policymakers must heed the lessons of past failures, particularly the pitfalls of prohibition. Fortunately, states with established legal frameworks for medical and adult-use marijuana possess a foundational understanding of the processes and risks inherent in regulating similar markets. This affords policymakers a valuable starting point as they endeavor to establish a legal hemp-derivatives market, navigating the intricate trade-offs between oversight, public safety, revenue generation through taxation, and the deterrence of illicit activities.

Drawing on insights from the diverse approaches adopted by states in governing the markets for medical and adult-use marijuana and hemp, this paper endeavors to furnish policymakers with a robust conceptual framework for governing consumable hemp products rooted in best practices. By analyzing these regulatory models and their potential application to hemp-derived cannabinoid products, it aims to offer pragmatic guidance for the efficient and equitable regulation of hemp derivatives.

5 "Maryland hemp-derived THC retailers could reopen after judge's ruling," MJBizDaily.com, 13 Oct 2023, www.mjbizdaily.com/maryland-hemp-derived-thc-retailers-could-reopen-after-court-ruling (8 July 2024).

6 Ian A. Stewart, "Washington State's Aggressive Approach to Preventing Intoxicating Hemp Cannabinoids May Be Adopted in Other States," Wilson Elser website, 24 July 2023, www.wilsonelser.com/publications/washington-states-aggressive-approach-to-preventing-intoxicating-hemp-cannabinoids-may-be-adopted-in-other-states (8 July 2024).

## 2.1 NOTES ON TERMINOLOGY

Hemp and "marijuana" both originate from the same plant species, *cannabis sativa Linnaeus*. Varieties of this plant can contain more than 120 different phytocannabinoids, with concentrations varying based on breeding, harvesting, and growing and processing methods.[7] Among these phytocannabinoids, the most notable are delta-9 tetrahydrocannabinol (delta-9 THC), the primary psychoactive compound in cannabis, and cannabidiol (CBD), a non-psychoactive molecule known to reduce cellular spasticity and alleviate some forms of epilepsy.[8]

The term "marijuana" typically refers to cannabis varieties cultivated for their psychoactive properties, with an emphasis on breeding for higher concentrations of compounds like delta-9 THC. These plants are primarily cultivated for their flowers and buds, which contain the highest levels of THC.

Conversely, "hemp" denotes cannabis cultivars bred for industrial applications such as textiles, fabrics, paper, and consumer goods. Hemp plants generally have lower THC concentrations, and their cultivation focuses on harvesting fiber, seeds, and oils.[9]

Acknowledging the racialized connotations associated with the term "marihuana" in U.S. politics, reform advocates have increasingly favored the broader term "cannabis" to refer to both the *cannabis sativa* plant and its psychotropic end-products.[10] Reason Foundation has generally adopted this semantic preference. However, to maintain clarity, this paper will use "cannabis" when discussing the plant species and "marijuana" when referring specifically to federally illicit cannabis products intended or used for their psychoactive effects.

7 Paula Morales, Dow P. Hurst, Patricia H. Reggio, "Molecular Targets of the Phytocannabinoids-A Complex Picture," *Progress in the Chemistry of Organic Natural Products*, 103 (2017), www.ncbi.nlm.nih.gov/pmc/articles/PMC5345356 (23 July 2024).

8 "Phytocannabinoids," Lambert Initiative for Cannabinoid Therapeutics, University of Sydney website, www.sydney.edu.au/lambert/medicinal-cannabis/phytocannabinoids.html (30 April 2024).

9 "Defining Hemp: A Fact Sheet," Congressional Research Service, 22 March 2019, sgp.fas.org/crs/misc/R44742.pdf (30 April 2024).

10 Robert A. Mikos and Cindy D. Kam, "Has the "M" word been framed? Marijuana, cannabis, and public opinion," PLoS One, 31 Oct 2019, www.ncbi.nlm.nih.gov/pmc/articles/PMC6822944 (8 July 2024).

## 2.2 HEMP INDUSTRY

The express intent behind the enactment of the 2018 Farm Bill was to create a legal hemp cultivation industry and support agricultural interests.[11] But, for hemp cultivation to be a viable endeavor, there must be demand for end products derived from those plants. Traditionally, these end products have included industrial products created from the plants' fibers, seeds, and flowers.[12]

> *Hemp fibers are used in numerous products, including fabrics, textiles, home furnishing, insulation, car manufacturing, etc. Fibers manufactured from hemp stalks are among the strongest natural fibers in tensile strength.*

Hemp fibers are used in numerous products, including fabrics, textiles, home furnishing, insulation, car manufacturing, etc. Fibers manufactured from hemp stalks are among the strongest natural fibers in tensile strength. Hemp stalks are used in papermaking and, more recently, have begun to be used in the production of hemp plastics.[13] Hemp seed oil is used for personal care items, cosmetics, and pharmaceuticals or supplements, while hemp seed-oil cake (the material remaining after seed processing) is an edible source of fiber.[14] These end markets, however, require significant infrastructure investment. Moreover, while

11 Burgess Everett, "McConnell backs bill to ease up on hemp cultivation," *Politico*, 26 Mar 2018, www.politico.com/story/2018/03/26/mitch-mcconnell-hemp-cultivation-485282 (8 July 2024).

12 Rebecca Hill, Becca B.R. Jablonski, Laney Van, et al., "Producers marketing a novel crop: a field-level view of hemp market channels," Cambridge University Press, 17 April 2023, www.cambridge.org/core/journals/renewable-agriculture-and-food-systems/article/producers-marketing-a-novel-crop-a-fieldlevel-view-of-hemp-market-channels/D61179A526FA3BC77EA020B99F9741E8 (8 July 2024).

13 Jace Pohlman "National Hemp Month Spotlight: Hemp Paper and Plastics," Vincente LLP website, 23 July 2021, vicentellp.com/insights/national-hemp-month-spotlight-hemp-paper-and-plastics (8 July 2024).

14 Klaudia Kotecka-Majchrzak, Natalia Kasałka-Czarna, Anita Spychaj, et al., "The Effect of Hemp Cake (Cannabis sativa L.) on the Characteristics of Meatballs Stored in Refrigerated Conditions," *Molecules*, 31 Aug 2021, www.ncbi.nlm.nih.gov/pmc/articles/PMC8433655 (8 July 2024).

interest in industrial uses for hemp have re-emerged in recent years, this end market remains largely unprofitable for most hemp cultivators.[15]

The market for intoxicating hemp derivatives, meanwhile, has grown sharply, with industry experts estimating its size at $28 billion to $36 billion in annual sales nationally, supporting nearly 330,000 workers across the country.[16] Hemp cultivation for flower and potential extraction of cannabinoids now comprises over 30 percent of the total harvested hemp acreage. More importantly, perhaps, the income derived from growing hemp for flower now dwarfs that of all other uses, comprising over 95% of hemp income in 2023.[17]

Unlike hemp cultivated for seeds and fiber, cultivators of hemp intended for cannabinoid extraction focus on the flowers of the plant where THC, CBD, and other cannabinoids are produced in higher concentrations. Cannabinoids may be found in the leaves and stems of plants, but in significantly lower concentrations. Cannabinoids are absent in the roots and seeds of the cannabis plant.[18]

*“The market for intoxicating hemp derivatives, meanwhile, has grown sharply, with industry experts estimating its size at $28 billion to $36 billion in annual sales nationally, supporting nearly 330,000 workers across the country.”*

15 Mary Carreon, "The industrial hemp market is too undeveloped for farmers to turn a profit,” The Hemp Magazine, 10 June 2022, thehempmag.com/2022/06/the-industrial-hemp-market-is-too-undeveloped-for-farmers-to-turn-a-profit (8 July 2024).

16 Beau Whitney, “2023 U.S. National Cannabinoid Report,” Whitney Economics, 23 Oct 2023, whitneyeconomics.com/blog/us-national-cannabinoid-report---executive-summary (8 July 2024).

17 "Mixed-bag USDA hemp report for 2023 leaves stakeholders little to cheer about," Hemp Today, 18 April 2024, hemptoday.net/mixed-bag-usda-hemp-report-for-2023-leaves-stakeholders-little-to-cheer-about (8 July 2024).

18 Barbara Farinon, Romina Molinari, Lara Costantini, Nicolò Merendino, "The Seed of Industrial Hemp (Cannabis sativa L.): Nutritional Quality and Potential Functionality for Human Health and Nutrition," *Nutrients*, July 2020, www.ncbi.nlm.nih.gov/pmc/articles/PMC7400098 (15 May 2024).

## 2.3 HEMP EXTRACTS AND DERIVATIVES

The process of extracting cannabinoids from hemp plant materials falls into two broad categories: the extraction of cannabinoids and terpenes from hemp flower (trichome extraction), and the extraction of fatty acids from hemp seeds. For the purposes of this paper, we will focus on cannabinoid extraction methods.

Hemp or cannabis plants can contain more than 120 different cannabinoids in varying concentrations, with the most abundant being cannabidiol (CBD), delta-9 THC, delta-8 THC, and tetrahydrocannabinolic acid (THCA)—a non-psychotropic precursor to delta-9 THC that becomes delta-9 THC when heat is applied. Regardless of the cannabinoid of interest, processing begins after harvested hemp flowers are trimmed, dried, and milled. The milled hemp biomass is then immersed in a solvent, filtered, and evaporated, resulting in a distillation ready for use in inhalable products, edibles, cosmetics, supplements, etc.[19]

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Perhaps the most well-known cannabinoid is cannabidiol (CBD), a non-psychotropic cannabinoid that occurs naturally in the flowers and, to a lesser degree, the leaves of the cannabis plant. While the FDA has approved one CBD-based prescription medication called Epidiolex (used to treat certain forms of epilepsy), countless over-the-counter CBD products have become increasing available as supplements, cosmetics, and inhalable products.[20]

19 Mehrab Valizadehderakhshan, Abolghasem Shahbazi, Masoud Kazem-Rostami, et al., "Extraction of Cannabinoids from Cannabis sativa L. (Hemp)—Review," *Agriculture*, 23 April 2021, www.mdpi.com/2077-0472/11/5/384 (8 July 2024).

20 “FDA Approves First Drug Comprised of an Active Ingredient Derived from Marijuana to Treat Rare, Severe Forms of Epilepsy," FDA website, 25 June 2018, www.fda.gov/news-events/press-announcements/fda-approves-first-drug-comprised-active-ingredient-derived-marijuana-treat-rare-severe-forms (30 Apr 2024).

In addition to naturally occurring cannabinoids found in the hemp plant, additional cannabinoids can be synthesized by chemically modifying the CBD extracted from hemp flowers. For instance, delta-8 THC is present in small amounts in cannabis plants but can also be synthesized from CBD or delta-9 THC through a process called isomerization. This process involves applying strong acids, such as hydrochloric or sulfuric acid, to CBD distillate extracted from hemp flowers, converting the CBD into intoxicating delta-8 THC.[21]

According to some sources, this process yields a distillate containing 60% to 70% delta-8 THC and 2% to 6% delta-9 THC. This distillate can then be diluted to ensure it remains below the 0.3% delta-9 THC concentration limit. It is estimated that 30% to 60% of the total cannabinoids in hemp flowers are lost during extraction or purification.[22]

*Additionally, there is a growing number of synthetic cannabinoids that do not occur naturally in cannabis plants but are created in laboratories.*

Additionally, there is a growing number of synthetic cannabinoids that do not occur naturally in cannabis plants but are created in laboratories. These include delta-10 THC and its isomers, as well as THC-O acetate and its isomers. Whereas delta-8 THC is said to produce a weaker psychotropic effect compared to delta-9 THC, it is purported that THC-O and its variants (delta-9-THC-O and delta-8-THC-O) have stronger effects than both delta-8 THC and delta-9 THC.[23]

According to regulations adopted by the DEA, the legality of these hemp-derived cannabinoids depends on whether they are deemed a "synthetic" cannabinoid or naturally occurring.[24] While this may seem to place delta-8 THC products in the controlled

21 Jessica McKeil, "Discover How Novel Delta-8 THC is Made in the Lab," CannabisTech, 29 Mar 2022, cannabistech.com/articles/how-delta-8-is-made-in-the-lab (15 May 2024).

22 Ibid.

23 Dale Gieringer, "NORML's Guide to Delta-8 THC and Other Novel Cannabinoids," NORML, October 2021, norml.org/marijuana/fact-sheets/normls-guide-to-delta-8-and-other-novel-cannabinoids (30 Apr 2024).

24 "Implementation of the Agriculture Improvement Act of 2018," Drug Enforcement Administration, Federal Register, 21 Aug, 2020, www.govinfo.gov/content/pkg/FR-2020-08-21/pdf/2020-17356.pdf (8 July 2024).

substances category, there is debate as to whether delta-8 THC or other compounds derived from a naturally occurring cannabinoid like CBD meets the definition of a "synthetic cannabinoid." The DEA has clearly interpreted cannabinoids that are wholly produced in a lab as unlawful Schedule I substances, such as "cannabimimetic agents" that are commonly referred to as "K2" or "spice."[25] But cannabinoids converted from natural hemp extracts may not meet this definition.

The U.S. Court of Appeals for the Ninth Circuit ruled in 2022 that delta-8 THC products produced through the conversion of hemp-derived CBD fall "comfortably within the statutory definition of 'hemp'" and that the 2018 Farm Bill's "definition of hemp is not ambiguous."[26] The court pointed to the plain language of the Farm Bill, which makes no reference to any intent of precluding intoxicating products from the market and instead makes clear that "any cannabinoid originating from the cannabis plant" that contains less than 0.3% delta-9 THC qualifies as hemp.

The Ninth Circuit even summarily dismissed any contrary claims that might emerge from the DEA because the plain language of the statute was clear. However, the court noted that the DEA interpretation appeared consistent with its own, pointing to the agency's adopted regulations and noting the "language suggests the source of the product—not the method of manufacture—is the dispositive factor for determining whether a product is synthetic."

Official DEA communications have mostly supported this view. In a 2021 letter addressed to Alabama Board of Pharmacy Executive Secretary Donna Yeatman, who had requested control of delta-8 THC products in her state, the agency explained that delta-8 THC products created from hemp are outside the scope of the Controlled Substances Act.[27] In a 2023 letter regarding the legality of an artificial cannabinoid, THC-O, DEA noted that while THCOs are chemically similar to naturally-occurring cannabinoids, they "do not occur naturally in the cannabis plant and can only be obtained synthetically, [they] therefore do not fall under the definition of hemp."[28]

25 "Drug Fact Sheet: K2/Spice," Department of Justice/Drug Enforcement Administration, DEA.gov, April 2020. www.dea.gov/sites/default/files/2020-06/K2-spice-2020.pdf (8 July 2024).

26 D. Michael Fisher, "*AK Futures LLC v. Boyd Street Distro LLC*," U.S. Court of Appeals, Ninth Circuit, 19 May 2022, cdn.ca9.uscourts.gov/datastore/opinions/2022/05/19/21-56133.pdf (8 July 2024).

27 U.S. Drug Enforcement Administration, Letter from Terry R. Boos (Chief of Drug & Chemical Evaluation Section of the Diversion Control Division) to Donna C. Yeatman, September 15, 2021, albop.com/oodoardu/2021/10/ALBOP-synthetic-delta8-THC-21-7520-signed.pdf (22 July 2024).

28 Terrence L Boose (DEA) letter to Rod Knight, 13 Feb 2023, www.greenmarketreport.com/wp-content/uploads/2023/02/DEA-THCO-response-to-Kight.pdf.

As these non-delta-9 cannabinoids are relatively new to the market, there has been little research into their possible impacts on human health. However, due the chemical similarity of naturally occurring THCs to the more well-studied delta-9 THC, it is believed that delta-8 THC and other naturally-occurring THCs have a similar safety profile as delta-9 THC.[29]

*While there is little evidence that these naturally occurring cannabinoids pose any greater inherent risk to consumers than other consumable "marijuana" products, lawmakers and regulators are justifiably concerned about the potential harms these products may pose due to lack of standards and regulatory uniformity regarding manufacturing processes, product testing, and labeling.*

While there is little evidence that these naturally occurring cannabinoids pose any greater inherent risk to consumers than other consumable "marijuana" products, lawmakers and regulators are justifiably concerned about the potential harms these products may pose due to lack of standards and regulatory uniformity regarding manufacturing processes, product testing, and labeling, as well as the potential for consumer confusion about the growing range of marijuana and hemp-derived products. For example, solvents used to convert hemp CBD into psychoactive cannabinoids can pose risks if not properly removed. A lack of manufacturing standards and oversight also raises concerns about contamination, with the potential for toxins like heavy metals, mold, and pesticides to make their way into finished consumer products. Lastly, the unregulated status of hemp-derived cannabinoid products and resulting lack of labeling standards may lead to mislabeled products or accidental ingestion of psychotropic products due to confusing labeling or inadequate packaging.

## 2.4 FEDERAL LEGISLATIVE HISTORY

Since the enactment of the Marihuana Tax Act of 1937, federal law has mostly treated hemp and marijuana the same, categorizing all cannabis varieties, including hemp, as narcotic drugs. This legislation mandated federal registration and a special tax stamp for

[29] Gieringer, "NORML's Guide to Delta-8 THC and Other Novel Cannabinoids."

hemp farmers, contributing to a decline in hemp production post-World War II, with no production observed after the late 1950s.[30] (By contrast, hemp was a primary American agricultural commodity until the late 19th century, and hemp cultivation played a key role in the original settlement of the American colonies.[31])

After the Marihuana Tax Act was struck down by the U.S. Supreme Court in 1969, Congress responded by passing the Controlled Substances Act of 1970 (CSA).[32] The CSA went further than the Marijuana Tax Act by implementing an outright ban against all forms of cannabis, irrespective of whether they would today be considered hemp or marijuana, by classifying cannabis as a Schedule I controlled substance. This legislation vested regulatory authority over all cannabis production in the hands of the U.S. attorney general and the Drug Enforcement Administration (DEA).[33]

> *Despite this decontrolling of hemp and hemp-derived products, the 2018 Farm Bill did not establish a regulatory framework to govern these products, merely reserving the authority to regulate such products for the Department of Health and Human Services through the FDA.*

In 2014, the federal Agricultural Act (commonly known as the "Farm Bill") introduced a partial relaxation of restrictions on hemp. This legislation allowed for state-based pilot programs authorizing the cultivation of "industrial hemp" for research purposes. Industrial hemp was defined as the plant *cannabis sativa L.* with a delta-9 tetrahydrocannabinol (THC) concentration not exceeding 0.3% on a dry weight basis.[34]

30 Renee Johnson, "Hemp as an Agricultural Commodity," Congressional Research Service, 22 June 2018, sgp.fas.org/crs/misc/RL32725.pdf (8 July 2024).

31 Geoffrey Lawrence, "Cannabis and States' Power: A Historical Review of State Efforts and Authority to Regulate Cannabis," Reason Foundation policy brief, April 2019, https://reason.org/wp-content/uploads/cannabis-and-states-power-historical-review-of-regulation.pdf.

32 The U.S. Supreme Court ruled it violated the Fifth Amendment's protection against self-incrimination, as it required individuals to incriminate themselves by registering and paying a tax to possess marijuana. *Leary v. United States*, 395 U.S. 6, 39–52 (1969), caselaw.findlaw.com/court/us-supreme-court/395/6.html (2 Aug 2024).

33 "Establishment of a Domestic Hemp Production Program," U.S. Department of Agriculture, Federal Register, 19 Jan 2021, www.govinfo.gov/content/pkg/FR-2021-01-19/pdf/2021-00967.pdf (8 July 2024).

34 H.R. 2642, The Agricultural Act of 2014, www.congress.gov/bill/113th-congress/house-bill/2642 (16 May 2024).

The 2018 Farm Bill marked a significant shift in federal policy by excluding hemp from the CSA's definition of marijuana and providing a statutory definition for hemp. This new definition expanded beyond “industrial hemp” to encompass all parts of the plant, including derivatives and extracts, as long as the delta-9 THC concentration remained below 0.3%. Additionally, the law redefined "tetrahydrocannabinol" under the CSA, excluding “tetrahydrocannabinols in hemp” and thus removed hemp from the list of federally controlled substances.[35]

Despite this decontrolling of hemp and hemp-derived products, the 2018 Farm Bill did not establish a regulatory framework to govern these products, merely reserving the authority to regulate such products for the Department of Health and Human Services through the FDA. These agencies, however, have yet to issue broad standards or guidelines, leaving hemp-derived products in a regulatory gray area where they are technically lawful but with little to no oversight from federal authorities. Consequently, a proliferation of hemp-derived products ensued across the states, raising concerns about their quality, safety, and regulatory oversight.[36,37,38,39,40,41]

35 H.R.2 Agricultural Improvement Act of 2018 www.congress.gov/bill/115th-congress/house-bill/2 (16 May 2024).

36 Federal Register, "Statement of Principles on Industrial Hemp," 12 Aug 2016, www.federalregister.gov/documents/2016/08/12/2016-19146/statement-of-principles-on-industrial-hemp (15 May 2024).

37 H.R.2 Agricultural Improvement Act of 2018 www.congress.gov/bill/115th-congress/house-bill/2 (16 May 2024).

38 Drug Enforcement Administration, "Implementation of the Agriculture Improvement Act of 2018" Federal Register, 21 Aug 2020, www.federalregister.gov/documents/2020/08/21/2020-17356/implementation-of-the-agriculture-improvement-act-of-2018.

39 FDA News Release, "FDA Issues Warning Letters to Companies Illegally Selling CBD and Delta-8 THC Products," 4 May 2022, https://www.fda.gov/news-events/press-announcements/fda-issues-warning-letters-companies-illegally-selling-cbd-and-delta-8-thc-products.

40 Marshall Custer, "That Ninth Circuit Delta-8 Opinion and What’s Followed – It’s Not a Green Light for Intoxicating Hemp, Part 1," Cannabis Law Now, 22 Aug 2022, www.cannabislawnow.com/2022/08/that-ninth-circuit-delta-8-opinion-and-whats-followed-its-not-a-green-light-for-intoxicating-hemp.

41 Janet Woodcock, "FDA Concludes that Existing Regulatory Frameworks for Foods and Supplements are Not Appropriate for Cannabidiol, Will Work with Congress on a New Way Forward," FDA website, 26 Jan 2023, https://www.fda.gov/news-events/press-announcements/fda-concludes-existing-regulatory-frameworks-foods-and-supplements-are-not-appropriate-cannabidiol (16 May 2024).

PART 3

# CURRENT FEDERAL AND STATE REGULATORY ACTIVITY

The regulatory landscape for hemp in the United States is currently undergoing significant changes as lawmakers, industry stakeholders, and legal authorities address the evolving needs of this burgeoning sector. Since the 2018 Farm Bill federally legalized the cultivation of hemp and differentiated it from marijuana, the hemp industry has expanded rapidly. However, this growth has brought about new challenges, especially regarding new hemp-derived consumer products, which arguably require further legislative and regulatory actions at both the federal and state levels.

The proliferation of hemp-derived cannabinoid products, particularly cannabinoids like CBD and delta-8 THC, has prompted increased regulatory scrutiny at both the state and federal levels. Delta-8 THC derived from hemp-extracted CBD, and "THCA flower" or "hemp flower," have become especially controversial due to their intoxicating effects that are similar to the federally-controlled delta-9 THC found in marijuana products. In response, states have begun to regulate or prohibit hemp-derived cannabinoids, citing concerns over consumer safety and the lack of regulatory oversight. In just the first half of 2024, more than 10

states have enacted laws regulating hemp-derived cannabinoid products.[42] This wave of state-level legislation reflects the high degree of interest among state lawmakers in addressing the complexities of this emerging market, especially in the absence of clear federal guidelines.

The federal response has remained largely hands-off, with the FDA and the DEA expressing concerns but stopping short of comprehensive regulation. The FDA has issued warnings to companies making unsubstantiated health claims about CBD products and has explored pathways to regulate CBD as a dietary supplement or food additive. However, a clear federal regulatory framework for CBD and other hemp-derived cannabinoids remains elusive.

> *… conflicts in how various federal agencies interpret existing federal statute have begun to emerge, compounding confusion for state authorities, industry, and consumers.*

In addition, conflicts in how various federal agencies interpret existing federal statute have begun to emerge, compounding confusion for state authorities, industry, and consumers. For example, the 2018 Farm Bill stimulated the rise of a $28 billion hemp industry precisely because it decriminalized all parts of the cannabis plant *except* for delta-9 THC, ending a de facto prohibition on all other constituents of the *cannabis sativa* plant and products containing those constituents, so long as they remain under the 0.3% delta-9 THC threshold.[43] This May, however, the DEA issued an opinion that the legality of hemp does not, in fact, hinge on delta-9 THC, but rather "total THC." This interpretation arises from the DEA's renewed reading of the 2018 Farm Bill, which instructed the use of "post-decarboxylation" testing—a procedure that converts non-psychoactive

[42] "Newly Enacted Hemp Laws in 2024: Key Regulatory Updates Across the US," Westlaw Today website, 29 May 2024, today.westlaw.com/Document/I93fcd8101dd711efbb71b808f33043e3/View/FullText.html (8 July 2024).

[43] Danielle Chemtob, "Forbes Daily: The Budding $28B Hemp Market's Feud With Marijuana," *Forbes*, 19 Apr 2024, www.forbes.com/sites/daniellechemtob/2024/04/19/forbes-daily-the-budding-28b-hemp-markets-feud-with-marijuana (12 Aug 2024).

tetrahydrocannabinolic acid (THCA) into psychoactive delta-9 THC.[44] The Farm Bill, however, prescribes post-decarboxylation testing with regard only to USDA oversight of hemp cultivators and imposes no testing requirements for hemp plants after they leave the field.[45] Federal guidance on testing post-harvested hemp and hemp products by agencies like the FDA or Alcohol and Tobacco Tax and Trade Bureau (TTB) would clarify this conflict, but have yet to emerge. Moreover, previous DEA opinions have specifically pointed to the excessive concentration of delta-9 THC as the indicator that invokes agency jurisdiction over cannabis as a controlled substance.

*In many ways, the hemp-derived cannabinoids market stands at a precipice similar to that faced by marijuana a decade ago when state lawmakers, frustrated with federal inaction, began to establish their own marijuana regulatory frameworks.*

In many ways, the hemp-derived cannabinoids market stands at a precipice similar to that faced by marijuana a decade ago when state lawmakers, frustrated with federal inaction, began to establish their own marijuana regulatory frameworks. These frameworks were heavily influenced by the states' desire to avoid strict enforcement of federal law within their borders, giving rise to a patchwork of onerous and complex state marijuana laws that have hampered the industry and frustrated consumers, as well as requiring near-constant revision by lawmakers.

The regulatory fragmentation for marijuana created an opening for the rise of hemp-derived cannabinoid alternatives, which, free from federal prohibition and burdensome state regulations, are often more accessible and affordable for consumers as well as more profitable for companies than marijuana.

44 Letter from Terrence L. Boos (DEA) to Mr. Shane Pennington, 13 May 2024, https://www.documentcloud.org/documents/24688803-24-9472-porter-wright-thca-05032024-signed (12 Aug 2024)

45 Rod Kight, "THCA DEJA VU," Cannabis Business Law, 27 May 2024, cannabusiness.law/thca-deja-vu (12 Aug 2024)

## 3.1 FEDERAL DEVELOPMENTS

As Congress continues to deliberate the 2023 Farm Bill, several provisions relevant to hemp are under consideration. One key area of focus is the adjustment of the THC threshold for hemp products. Industry advocates have called for raising the allowable THC limit from 0.3% to 1%, arguing that this would reduce risks for farmers who must destroy their crops if those crops inadvertently exceed the notably low threshold of THC concentration.[46] Farmers argue a 1% threshold still would not compromise the non-psychoactive nature of hemp. Additionally, there are proposals to streamline the hemp licensing process and reduce the regulatory burden on small farmers by simplifying compliance requirements and providing more robust federal support for hemp research.[47]

> *The move to recriminalize hemp is backed by both prohibition activists and large multi-state marijuana companies who view hemp-derived cannabinoids as unfair competition due to the higher regulatory and financial burdens faced by licensed cannabis businesses.*

At the same time, however, an amendment attached to the recently-approved House version of the Farm Bill would redefine hemp so as to impose a federal prohibition on ingestible hemp products with any detectable level of THC, essentially outlawing all hemp-derived cannabinoid products, including non-intoxicating CBD, which often contains trace amounts of THC.[48] The move to recriminalize hemp is backed by both prohibition activists and large multi-state marijuana companies who view hemp-derived cannabinoids as unfair competition due to the higher regulatory and financial burdens faced by licensed cannabis

46 Brooke Gilbert, "National Cannabis Industry Association Seeks Regulation of Intoxicating Hemp Products as House Agriculture Committee Considers Farm Bill," National Cannabis Industry Association website, 23 May 2024, thecannabisindustry.org/press-releases/national-cannabis-industry-association-seeks-regulation-of-intoxicating-hemp-products-as-house-agriculture-committee-considers-farm-bill (2 Aug 2024).

47 Melissa Schiller, "Hemp Industry Organizations Unite on 7 Key Objectives for 2024 Farm Bill," Cannabis Business Times, 3 January 2024, www.cannabisbusinesstimes.com/news/hemp-industry-organizations-unite-7-key-objectives-2024-farm-bill (2 Aug 2024).

48 Chris Roberts, "Farm Bill amendment would ban all hemp-derived THC, close THCA 'loophole.'" MJBizdaily.com, 23 May 2024, https://mjbizdaily.com/marijuana-lobbies-push-for-hemp-derived-cannabinoid-ban-in-farm-bill (8 July 2024).

businesses vis-a-vis the more lenient federal treatment of hemp.[49] According to hemp industry experts, the move would outlaw 90% to 95% of hemp products currently available, eliminating a vital end-market that allows hemp cultivation to be a viable business venture.[50] The move also highlights the inter-industry conflict between hemp and marijuana created by the arbitrary legal distinction between marijuana and hemp. This distinction incentivizes established businesses to protect their business model by shutting out potential competitors through legislative and regulatory pathways.

For its part, the Cannabis Regulators Association (CANNRA), an organization composed of state marijuana regulators, has asked Congress to include in the next Farm Bill express authority for states to regulate hemp-derived cannabinoid products as they see fit.[51] CANNRA has also requested Congress to include within the bill:

- A definition of "Hemp-Derived Cannabinoid Products";
- A definition of THC that includes both delta-9 THC and its acidic precursor, THCA;
- Clarification that the 0.3% THC threshold applies only to the plant and that regulations establish different thresholds for intermediate or final products; and
- Charging one federal regulatory agency with protecting consumer safety regarding hemp-derived cannabinoid products.[52]

State regulators' interest in THCA is notable because this is the form of THC most prevalent in cannabis flower. Even state-regulated marijuana that is cultivated largely for the purpose of intoxication generally contains its tetrahydrocannabinols primarily in the form of THCA, and this compound is converted to delta-9 THC simply by applying heat. So, when a user smokes marijuana flower or the cannabinoids are extracted and heated, non-intoxicating THCA becomes intoxicating delta-9 THC. A significant implication is that "hemp flower" or

49 Tony Lange, "US Cannabis Council Proposes Federal Prohibition for Hemp-Derived Products With THC," Cannabis Business Times, 11 April 2024, www.cannabisbusinesstimes.com/news/us-cannabis-council-hemp-derived-products-thc-farm-bill (8 July 2024).

50 Noelle Skodzinski, "Farm Bill Amendment Would 'Devastate' Hemp-Derived Cannabinoid Industry, Close THCA Loophole for Seed and Flower Sales," Cannabis Business Times, 23 May 2024, www.cannabisbusinesstimes.com/news/farm-bill-2024-amendment-would-change-definition-of-hemp-devastate-hemp-derived-cannabiniod-industry-end-thca-seed-flower-sales (8 July 2024).

51 Cannabis Regulators Association, Letter to House Agriculture Committee, May 13, 2024, https://www.cann-ra.org/news-events/cannra-calls-for-clarification-of-existing-state-authority-to-regulate-hemp-and-hemp-products.

52 Cannabis Regulators Association, Letter to House Committee on Agriculture, September 15, 2023, https://www.cann-ra.org/news-events/cannra-calls-for-modifications-to-the-2023-farm-bill-to-address-cannabinoid-hemp-products (8 July 2024).

"THCA flower," which is currently outside the bounds of the CSA, can be chemically indistinguishable from state-regulated marijuana flower.

## 3.2 STATE-LEVEL DEVELOPMENTS

Due to federal marijuana prohibition, state regulations on marijuana have largely been constructed around the perceived need to maintain wholly intrastate marijuana markets to avoid potential interference by federal law enforcement. As Reason Foundation has argued elsewhere, we believe these state prohibitions on cross-border marijuana sales likely violate the dormant Commerce Clause and will ultimately be struck down as unconstitutional.[53]

While the application of the dormant Commerce Clause to marijuana products is clouded by federal illegality of these same products, there is no such conflict regarding hemp-derived cannabinoid products. By removing these products from the auspices of the CSA, the Farm Bill unambiguously authorizes an interstate market in hemp products. Restrictions on these products have already been the subject of legal challenge in states like Indiana, Arkansas, Virginia, and Alaska on these grounds.[54] As these authors have argued elsewhere, Supreme Court precedent clearly establishes states' authority to use their police powers to regulate or ban a product they believe to be dangerous to the public health, but they cannot use regulatory powers to discriminate against out-of-state economic interests.[55] In other words, states cannot ban the import or export of products that are otherwise legal within their borders.

> *Currently, 13 states prohibit hemp-derived cannabinoids to various degrees, and 14 additional states are actively considering similar proposals.*

As more states begin to regulate hemp-derived goods, they must refrain from usurping the exclusive jurisdiction of Congress in regulating interstate commerce by attempting to ban

53 Geoffrey Lawrence and Michelle Minton, "The Case for Interstate Marijuana Commerce Right Now," Reason Foundation policy brief, January 2024, https://reason.org/wp-content/uploads/case-for-interstate-marijuana-commerce-right-now.pdf.

54 Samantha Capaldo, "Legal Challenges to State Hemp Laws and Regulations," National Agricultural Law Center website, nationalaglawcenter.org/legal-challenges-to-state-hemp-laws-and-regulations (8 July 2024).

55 Lawrence and Minton, "The Case for Interstate Marijuana Commerce Right Now."

or control cross-border trade. Attempting to do so, moreover, may only undermine the goals of regulating these products, as the exclusion of products from the legal market tends to push market participants toward illicit alternatives.

Currently, 13 states prohibit hemp-derived cannabinoids to various degrees, and 14 additional states are actively considering similar proposals.[56] Some states have begun to ban specific cannabinoids derived from hemp, such as delta-8, while others restrict the form such products may take, such as prohibiting inhalable hemp-derived goods. Still more states have begun to regulate hemp-derived cannabinoid products to ensure that adult consumers in their states have access to safe products with accurate labels.

Broadly, state regulatory frameworks for hemp-cannabinoids fall into six categories where hemp cannabinoids are:

- Prohibited;
- Unregulated;
- Regulated as a consumer good with specific regulatory requirements (i.e. licensure);
- Regulated under state cannabis laws;
- Limited to "total THC" concentrations under 0.3%; or,
- Legal except for certain cannabinoids, including "synthesized," or "artificial" cannabinoids designated under state law.

**TABLE 1: STATE LEGALITY OF INTOXICATING HEMP PRODUCTS**

| Illegal | Legal | | | Legal with Exceptions | |
|---|---|---|---|---|---|
| Fully prohibited | Unregulated | Regulated as consumer goods | Regulated as cannabis | Bans on synthesized hemp-cannabinoids | Bans on specific hemp-cannabinoids |
| Colorado, Delaware, Hawaii, Idaho, Iowa, Mississippi, Montana, Nevada, New York, North Dakota, Rhode Island, South Dakota, Utah, Virginia, Washington. | Alabama, Arkansas, D.C., Illinois, Indiana, Kansas, Maine, Massachusetts, Missouri, Nebraska, New Hampshire, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Texas, West Virginia, Wisconsin, Wyoming. | Louisiana, Maryland, Minnesota, Tennessee, Florida, Georgia, Kentucky. | Alaska, Arizona, California, Connecticut, Michigan, Vermont, Oregon. | Alaska, Oregon, Vermont, Hawaii, Nevada, North Dakota, Washington, Wyoming (contested). | Louisiana (THCA flower), Virginia (delta-8), Indiana (smokable hemp flower), New York (synthesized THC, delta-8, delta-10), Washington (delta-8), West Virginia (delta-8, delta-10), Wyoming (delta-8). |

[56] Masha Belinson, "The Legality of THC Delta-8: A State-By-State Guide," ACS Laboratory, 20 May 2024, www.acslab.com/cannabinoids/regulation-the-legality-of-thc-delta-8-a-state-by-state-guide (8 July 2024).

## REGULATED AS CONSUMER GOODS

Three states—Kentucky, Minnesota, and Tennessee—have expressly legalized hemp-derived cannabinoids and regulate them similarly to other consumer goods, imposing additional rules specifically governing hemp derivatives, such as a minimum purchasing age, licensure for retail sales, and requirements to keep products behind retail counters.

## REGULATED AS CANNABIS

Taking a middle-ground approach, a number of states have opted to treat hemp-derived cannabinoids similar to recreational marijuana. This may include either all hemp-derived THC products or just those containing THC concentrations above a certain threshold. Connecticut, for example, recently enacted a law subjecting high-THC hemp products (those above 0.3% total THC) to the same requirements as cannabis products. As a result, these products may be sold only in state-licensed medical or recreational cannabis dispensaries.[57] Washington and Maryland similarly require "intoxicating hemp" to comply with those states' recreational marijuana regulations.[58]

*… a number of states have opted to treat hemp-derived cannabinoids similar to recreational marijuana.*

## CANNABINOID-SPECIFIC BANS AND "SYNTHETIC" CANNABINOID BANS

Some states explicitly prohibit or list as controlled substances specific hemp-derived cannabinoids. For example, a growing number of states have recently prohibited delta-8 THC due to its increased popularity, the lack of understanding about its relative risk

[57] Public Act 24-76, "An Act Concerning Cannabis and Hemp Regulation," 11 May 2024, www.cga.ct.gov/2024/ACT/PA/PDF/2024PA-00076-R00HB-05150-PA.PDF (8 July 2024).

[58] Ian Stewart, Christine Hogan, Andrea Strain, "State Regs Sow Discord between Cannabis, Hemp Industries," Wilson Elser website, 25 Oct 2023, www.wilsonelser.com/publications/state-regs-sow-discord-between-cannabis-hemp-industries (8 July 2024).

compared to delta-9 THC (despite its natural occurrence in cannabis flower), and public concern about the trend.[59]

Some states have accomplished such cannabinoid-specific prohibitions by explicitly banning the presence of these cannabinoids in hemp or marijuana products. States without broad marijuana legalization, such as North Dakota and Wyoming, have accomplished this by adding these minor cannabinoids to their list of controlled substances alongside delta-9 THC to ensure that existing marijuana prohibitions encompass all potentially intoxicating cannabinoids that might be found in or derived from cannabis plant material.[60]

Among the states with legal marijuana sales, a growing trend in the effort to ban specific hemp-derived cannabinoids, like delta-8 THC, is to do so by defining them as "artificial" or "synthetic" cannabinoids and prohibiting these classes of cannabinoids while other cannabinoids remain legal.

While this may seem a straightforward way to prevent the proliferation of intoxicating hemp products and novel, artificially-created cannabinoids with unstudied effects, such definitions and the scope of prohibitions vary widely among these states. This creates a lack of consistency, public confusion, and regulatory ambiguities for both producers and law enforcement.

*… Minnesota prohibits cannabinoid products containing synthetic cannabinoids, which it defines as those similar in chemical composition to delta-9 THC. However, cannabinoids synthesized from hemp plant material remain uncontrolled.*

For example, Minnesota prohibits cannabinoid products containing synthetic cannabinoids, which it defines as those similar in chemical composition to delta-9 THC. However, cannabinoids synthesized from hemp plant material remain uncontrolled. This definition

59 Masha Belinson, "Delta 8 THC Legality: ACS Laboratory's Comprehensive State-by-State Regulation Guide," ACS Laboratory, 20 May 2024, www.acslab.com/cannabinoids/regulation-the-legality-of-thc-delta-8-a-state-by-state-guide (8 July 2024).

60 Senate File 32: Hemp-limitations on psychoactive substance" Wyoming legislature, March 2024, www.wyoleg.gov/Legislation/2024/SF0032 (16 Aug 2024).

comports closely with DEA interpretations of the Farm Bill, which designate the source material, rather than the manufacturing process, as the point of distinction. As a result, Minnesota prohibits lab-created cannabinoids, like THC-O acetate, while allowing for hemp-derived cannabinoids, such as delta-8 THC.[61]

New York also prohibits "synthetic" hemp-derived cannabinoids. However, in addition to banning artificial cannabinoids, the prohibition extends to naturally-occurring cannabinoids if they are created through isomerization or synthesis of hemp plant material, functionally outlawing delta-8 THC products.[62] Such prohibitions have proven difficult to implement, leading to a situation where state law is only sporadically enforced, and expressly illegal products remain widely available.

> *… the lack of clear federal guidance on hemp-derived CBD and other cannabinoid products has resulted in several legal battles.*

## 3.3 LEGAL ACTIONS AND INDUSTRY IMPACT

The rapid growth of the hemp industry, the emergence of hemp-derivative products, and state action to regulate these products have led to numerous legal challenges in state and federal court. Several lawsuits are currently underway that could significantly impact the future of hemp regulation. For example, courts recently overturned Maryland's effort to limit the sale of hemp-derived cannabinoid products to licensed marijuana dispensaries.[63]

61 "Sale of Certain Cannabinoid Products," 2023 Minnesota Statutes 151.72, www.revisor.mn.gov/statutes/cite/151.72 (8 July 2024).

62 "Requirements for Cannabinoid Hemp Processors," 2024 New York Codes, Rules, and Regulation, Title 9, Section 114.7, casetext.com/regulation/new-york-codes-rules-and-regulations/title-9-executive-department/subtitle-b-division-of-alcoholic-beverage-control/chapter-ii-rules-of-the-office-of-cannabis-management/part-114-cannabinoid-hemp/section-1147-requirements-for-cannabinoid-hemp-processors (2 Aug 2024).

63 Melissa Schiller, "Maryland Judge Bars State From Enforcing Ban on Hemp-Derived THC Sales," Cannabis Business Times, 17 Oct 2023, https://www.cannabisbusinesstimes.com/news/maryland-judge-bars-state-from-enforcing-ban-hemp-derived-thc-sales (8 July 2024).

Additionally, the lack of clear federal guidance on hemp-derived CBD and other cannabinoid products has resulted in several legal battles. For instance, litigation in Arkansas is addressing disputes over the interpretation of the 2018 Farm Bill's provisions regarding interstate transport of hemp, which could set important legal precedents regarding whether a state can prevent the transport of hemp through its borders.[64]

These recent court rulings highlight the ambiguity in the current federal treatment of hemp and the urgent need for Congress and federal agencies to provide clarity for state lawmakers, either by fully removing the entire cannabis plant from the list of controlled substances and granting total regulatory authority to states or by establishing a clear and comprehensive regulatory framework to facilitate consumer safety, cooperation between federal and state authorities, and transparency for participants in the hemp and marijuana industries.

*Balancing the needs of public health, farmers, marijuana businesses, hemp businesses, consumers, regulators, and law enforcement requires significant action at both the state and federal level as well as reform of the laws governing both hemp and marijuana.*

Balancing the needs of public health, farmers, marijuana businesses, hemp businesses, consumers, regulators, and law enforcement requires significant action at both the state and federal level as well as reform of the laws governing both hemp and marijuana. The following sections outline Reason Foundation's recommendations for action that decision-makers at all levels of government should take to ensure consumer access to safe products, a level playing field for hemp and marijuana markets, and industry compliance in order to diminish illicit activity.

64 Samantha Capaldo, "Legal Challenges to State Hemp Laws and Regulations," National Agricultural Law Center website, nationalaglawcenter.org/legal-challenges-to-state-hemp-laws-and-regulations (8 July 2024).

PART 4

# FEDERAL FRAMEWORK FOR REGULATING HEMP-DERIVED CANNABINOIDS

Due to federal supremacy, state lawmakers are limited in the extent of reforms they can pursue, and those limitations may result in warped state policy responses, similar to the patchwork of state cannabis laws. Fully addressing the conflict between cannabis and hemp commerce in order for states to effectively regulate both markets requires action at the federal level.

## DESCHEDULE CANNABIS

The most critical step the federal government can take is to remove cannabis, including delta-9 THC, and all other cannabis-derived compounds from the list of controlled substances under the Controlled Substances Act (CSA). This would significantly reduce burdens on licensed cannabis companies and allow state lawmakers to reform laws in accordance with the needs of their population rather than simply seeking to avoid federal interference. It would eliminate the need to distinguish marijuana from hemp, streamlining regulatory frameworks and reducing confusion for consumers, businesses, and law enforcement.

Arguably, the proliferation of intoxicating hemp-derivative products like delta-8 THC stems primarily from the fact that hemp-derivatives are cheaper and more accessible *because* they are not federally prohibited and not yet burdened by state regulations to the same extent as marijuana. There is clearly a demand for intoxicating cannabis products, and consumers will continue to seek out such products whether they are defined as marijuana or hemp and whether they are legal or illicit. Similarly, if federal law and state regulations make it virtually impossible for businesses to meet that consumer demand, market participants will seek ways to circumvent those laws and regulations. This dynamic has been a regular feature in the consumer nicotine space, for instance, where companies have attempted to evade onerous federal oversight of "tobacco" products by using synthetically produced, rather than tobacco-derived, nicotine.[65]

> *Overly heavy-handed regulations that incentivize market participants to evade federal rules and standards may be harmful to consumers, because product quality cannot be assured in illicit markets.*

Overly heavy-handed regulations that incentivize market participants to evade federal rules and standards may be harmful to consumers, because product quality cannot be assured in illicit markets. Enforcement also becomes increasingly costly as the breadth of regulations grows.

In an environment where marijuana is regulated similarly to alcoholic beverages and similarly available and affordable, a robust market for delta-8 THC and other delta-9 THC substitutes may be unlikely to materialize. Removing all aspects of the *cannabis sativa L.* plant from the federal CSA would level the playing field by eliminating the arbitrary legal distinction between marijuana and hemp. This would allow for comprehensive and consistent regulation of all cannabis products, ensuring that they are produced, tested, and sold under rigorous safety and quality standards. It would also reduce consumer confusion and enhance public safety by bringing all intoxicating cannabis products under a unified regulatory framework.

[65] Michelle Minton, "FDA's Dysfunctional Regulation of E-cigs Created the Synthetic Nicotine Problem," Competitive Enterprise Institute website, 21 Mar 2022, www.cei.org/blog/fdas-dysfunctional-regulation-of-e-cigs-created-the-synthetic-nicotine-problem (23 July 2024).

## COMMON PRODUCTION STANDARDS AND INTERSTATE COMMERCE

Even if Congress ultimately chooses to deschedule cannabis, it should additionally consider instituting minimum standards for the production of hemp-derived goods similar to its standards imposed on alcoholic beverages in order to ease the burden on state lawmakers. Comprehensive and uniform hemp rules would facilitate orderly interstate commerce of safe products and minimize barriers to trade created by the exercise of state police power where states pass laws to safeguard the public health. Although state rules that accomplish a legitimate local purpose like protecting public health are permissible under Commerce Clause jurisprudence, they may have the effect of excluding products made in other states that do not satisfy each state's regulatory framework. To this end, Congress should adopt federal minimum standards governing manufacturing, product formulation, testing, and labeling, similar to those provided for alcoholic beverages.

Not all states possess the financial resources or expertise to implement comprehensive regulatory schemes for various hemp-derived products. Federal minimum standards for product formulation, good manufacturing practices, and labeling would streamline the process of verifying the quality of hemp products entering interstate commerce and provide clarity for law enforcement.

To achieve this, Congress could direct the appropriate federal agency to issue a "fit for commerce" certificate to products that meet these minimum standards. While states would be free to impose additional requirements, as some do for alcoholic beverages, a federally recognized certificate would ensure that law enforcement can easily identify lawful hemp products being transported across state lines and maintain a clear chain of custody.

*… a federally recognized certificate would ensure that law enforcement can easily identify lawful hemp products being transported across state lines and maintain a clear chain of custody.*

## GOOD MANUFACTURING PRACTICES

The FDA currently regulates the manufacture of most pharmaceuticals by prescribing the processes, equipment, batching, and tracking parameters producers must follow, collectively referred to as "current Good Manufacturing Practices." Such standards do not yet exist for federally legal hemp products.

Much of the health concerns regarding new hemp-derived products and especially hemp-derived cannabinoids arise due to a lack of clarity about how they might be processed safely. For example, solvents used to convert hemp CBD into psychoactive cannabinoids can pose risks to consumers if not properly removed. A lack of manufacturing standards and oversight also raises concerns about contamination, with the potential for toxins like heavy metals, mold, and pesticides to make their way into finished consumer products. Lastly, the unregulated status of hemp-derived cannabinoid products and resulting lack of labeling standards may lead to mislabeled products or accidental ingestion of psychotropic products due to confusing labeling or inadequate packaging.

The federal government can lessen these concerns by providing state regulators and the industry with uniform minimum standards for the safe manufacture of hemp-derived goods, including a list of solvents approved for extraction, appropriate solvent removal, and parameters regarding the presence of potential toxins at various stages in the production cycle.

## PRODUCT STANDARDS

"Standards of identity" serve as category definitions for various types of alcoholic beverages at the federal level. These standards, dictated by the FDA and used by the Alcohol and Tobacco Tax and Trade Bureau (TTB), establish allowable ingredients for each category and guide the approval of labels for new products, as well as the development of regulatory guidance for the industry. Typically, alcoholic beverages do not require formula approval or testing. However, those with ingredients outside the listed standards of identity—such as added coloring and flavor additives or certain manufacturing processes like freezing—may require Alcohol Beverage Formula Approval from the TTB before production begins or label approval is sought.

States may have their own definitions of categories that differ from federal standards. For instance, until 2022 Alaska had no special definitions for beer, wine, or distilled spirits

beyond a general definition of alcoholic beverages as products greater than 0.5% ABV intended for human consumption.[66] Texas, meanwhile, defines two categories for beer: "beer" (a malt beverage with 0.5% to 4% alcohol by weight) and "ale or malt liquor" (a malt beverage with greater than 4% alcohol by weight). However, to these authors' knowledge, no state requires formula testing or additional ingredient approval beyond what the TTB requires. Many states do, however, mandate new products to register with state authorities and demonstrate compliance with federal labeling and formulation requirements.

Federal agencies may take a similar approach for hemp products, with federally defined product categories (e.g., flower, concentrates, edibles), quality standards, and basic labeling requirements, to streamline state oversight and facilitate interstate commerce.

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## LABELING

Similar to product standards, new alcoholic beverages must also receive label approval from the TTB prior to distribution, receiving either a Certificate of Label Approval (COLA) or a Certificate of Exemption from Label Approval (CELA). A COLA verifies that the product formula has been approved (or did not require approval) by the TTB and that the label meets federal minimum labeling standards, including the display of the federal alcohol health warning, alcohol content disclosure, and other requirements. Alternatively, alcoholic beverages intended for intrastate sale only may apply for a CELA, though their labels must still display the federal health warning.

[66] "Alcoholic Beverages," 2023 Alaska Statute, Title 4, Chapter 21, Section 04.21.080, law.justia.com/codes/alaska/title-4/chapter-21/section-04-21-080 (2 Aug 2024).

While the federal government does not mandate such TTB approvals for alcoholic beverages made and sold exclusively within a single state, nearly all alcoholic beverages obtain either a COLA or CELA, as states often rely on TTB approvals for state-level alcohol regulation. Many states require submission of proof of TTB label approval or exemption as a condition of registering new products with the state, even those intended only for intrastate sale. Some states impose additional labeling requirements, such as Missouri, which stipulates that alcoholic beverage labels must also list the address and owner of the facility in which it was produced.

A similar standard could prove effective for intrastate hemp commerce, with a federal authority, such as the FDA, setting minimum labeling standards to which state authorities may add to ensure uniform and adequate labeling of new consumable hemp products across the states.

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## INCREASE THE ALLOWABLE THC CONCENTRATION IN PRE-HARVEST HEMP PLANTS

The current 0.3% THC limit is neither scientific nor necessary to prevent potentially psychoactive plants from diversion into illicit markets. The limit stems from the work of botanist Ernest Small and taxonomist Arthur Cronquist who, in their 1976 paper on the taxonomy of cannabis, noted that in distinguishing hemp from marijuana that they "arbitrarily" adopted a concentration of 0.3% delta-9 THC on dry weight basis "in young, vigorous leaves of relatively mature plants… ."[67] That arbitrary dividing line was adopted by

[67] Ernest Small, Arthur Cronquist, "A Practical and Natural Taxonomy for Cannabis," *Taxon*, Aug 1976, www.jstor.org/stable/1220524 (8 July 2024).

governments around the world to distinguish marijuana from hemp and has been extended well beyond the authors' recommendation—which focused only on the leaves of the plant—to also require the flowers of the plant to meet this standard. Cannabinoids are produced in significantly lower quantities in the leaves of a cannabis plant, whereas flowers can contain up to 20 times the concentration of cannabinoids found in leaves.[68]

> *... cannabinoid concentrations vary throughout the life cycle of a plant, with THC typically increasing as the plant reaches maturity and then quickly declining.*

Moreover, cannabinoid concentrations vary throughout the life cycle of a plant, with THC typically increasing as the plant reaches maturity and then quickly declining. THC degrades into non-psychoactive cannabinol (CBN) as the plant continues to age.[69] This has proved to be an advantage for some cultivators, allowing plants which pass the federal potency standard when tested in-field, but which may have significantly higher THC concentrations by the time of harvest. However, the limit continues to pose a significant and largely unnecessary risk for hemp cultivators who must destroy crops exceeding the THC concentration limit even when such plants do not contain significant psychoactive potential. An order to destroy crops due to failed testing protocols can be financially catastrophic for a hemp farmer even when the farmer has acted in good faith to limit THC concentration. According to USDA estimates, about 20 percent of all hemp grown in the U.S. exceeds the THC limit in a given crop year.[70]

Industry trade groups representing hemp farmers, in addition to state agriculture departments, have responded by asking Congress to increase the maximum allowable THC

68 Dan Jin, Kaiping Dai, Zhen Xie, Jie Chen, "Secondary Metabolites Profiled in Cannabis Inflorescences, Leaves, Stem Barks, and Roots for Medicinal Purposes," *Scientific Reports*, 20 Feb 2020, www.nature.com/articles/s41598-020-60172-6 (8 July 2024).

69 Eric R. Linder, Sierra Young, Xu Li, et al., "The Effect of Harvest Date on Temporal Cannabinoid and Biomass Production in the Floral Hemp (Cannabis sativa L.) Cultivars BaOx and Cherry Wine," *Horticulturae*, 17 Oct 2022, www.mdpi.com/2311-7524/8/10/959 (8 July 2024).

70 Congressional Research Service, "Farm Bill Primer: Selected Hemp Industry Issues," 29 Nov. 2023, crsreports.congress.gov/product/pdf/IF/IF12278 (23 July 2024).

for pre-harvest plants from 0.3% to 1%.[71] This would reduce the burden and risk faced by cultivators, and potentially increase the availability and affordability of crop insurance within the sector, but such a proposal has yet to be adopted.

## CLARIFICATION FOR "IN-PROCESS" HEMP

In addition to increasing the THC allowable in pre-harvested hemp plants, federal lawmakers should also consider adjusting the statute to account for differences in typical cannabinoid concentration of different types of products, as well as at various stages in production that precede the packaging of retail goods. As noted, the initial 0.3% delta-9 THC limit was arbitrarily selected, but this limit was also intended only as a means of distinguishing whether a plant should be considered non-intoxicating hemp or intoxicating marijuana. The application of this plant-based standard to finished hemp products has created significant challenges, both for those enforcing the law and those subject to it. On the enforcement side, it requires sophisticated testing and calculations to determine the precise cannabinoid profile of any given material or product, regardless of whether that product will ever be offered at retail. Industry participants, meanwhile, must constantly monitor plants and materials throughout production to ensure compliance.

*"Complying with this threshold is practically impossible for those involved in processing hemp extracts, the manufacturing of which may result in hemp extracts that temporarily exceed the federal THC maximum in an intermediate phase before being diluted."*

Complying with this threshold is practically impossible for those involved in processing hemp extracts, the manufacturing of which may result in hemp extracts that temporarily exceed the federal THC maximum in an intermediate phase before being diluted. If the point of such limits is to protect the public, the current limit as applied to non-retail hemp materials in-process makes little sense and is needlessly restrictive.

[71] Kyle Jaeger, "State Agriculture Departments Across U.S. Push Congress To Triple The THC Limit For Hemp As 2024 Priority," Marijuana Moment, 23 Jan 2024, https://www.marijuanamoment.net/state-agriculture-departments-across-u-s-push-congress-to-triple-the-thc-limit-for-hemp-as-2024-priority (8 July 2024).

Not only is compliance with this standard technically infeasible, but it is also contrary to the intent of Congress when it passed the 2018 Farm Bill. Authors of that bill, Sens. Jeff Merkley (D-Ore.) and Ron Wyden (D-Ore.), have made it clear that they did not intend the 0.3% THC limit to apply to in-process hemp, stating that when Congress passed the Farm Bill "we understood that intermediate stages of hemp processing can cause hemp extracts to temporarily exceed 0.3% THC… ." They noted that this was why they defined hemp based on delta-9 THC concentration and why they chose to stipulate measurement of dry weight, since dry weight measurements are typically taken from the initial hemp plant and finished hemp-derived products.[72] That view was subsequently affirmed by the House Committee on Appropriations, which raised concerns about the DEA's interpretation of the Farm Bill, noting that Congress "intentionally expanded the definition of hemp to include derivatives, extracts, and cannabinoids in an effort to avoid the criminalization of hemp processing [and the] Committee understands that in-process hemp extract may temporarily exceed the delta-9 THC concentration of 0.3% before being packaged and sold."[73]

If the legality of hemp and hemp materials is to be based on cannabinoid concentration or profile, Congress should adopt a standard that more realistically addresses the variable cannabinoid concentrations present throughout the hemp production process. A 0.3% delta-9 THC limit on a dry weight basis might make sense for raw plant material, but in-process hemp extracts should not be subject to this limit. If limitations on delta-9 THC are viewed as necessary to protect the public, they should be applied only to finished products which the public might actually consume.

## FEDERAL GUIDANCE ON CANNABINOIDS AS FOOD ADDITIVES

There has been clear interest among market participants in including hemp-derived cannabinoids in common food items due to public demand for the potential benefits of these compounds. Shortly after passage of the 2018 Farm Bill, beverage giant Coca-Cola

72 "Letter from Ron Wyden and Jeffrey A. Merkley to Timothy J. Shea," 22 Oct 2020, wyden.senate.gov/imo/media/doc/102320%20Wyden%20Merkley%20Hemp%20DEA%20Letter.pdf (8 July 2024).

73 U.S. House of Representatives Subcommittee on Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Bill, 2023, docs.house.gov/meetings/AP/AP00/20220623/114947/HMKP-117-AP00-20220623-SD002.pdf (8 July 2024).

held exploratory talks about launching CBD-infused beverages.[74] Mondelez, the maker of Oreos and Chips Ahoy cookies, Cadbury chocolate, Nilla Wafers, and other established brands, also explored adding CBD to its products.[75] These companies and others have been stymied in their aspirations because there has been no federal approval of hemp-derived cannabinoids as food ingredients.

Federal regulatory guidance plays a crucial role regarding the inclusion of ingredients in foods and beverages, helping state agencies to align their regulatory frameworks with national standards, facilitating a more uniform market, and minimizing trade barriers. Ensuring that products meet minimum federal requirements promotes safety and, regardless of the state in which products are sold, promotes clarity for industry and consumer confidence.

> *"There has been clear interest among market participants in including hemp-derived cannabinoids in common food items due to public demand for the potential benefits of these compounds."*

For example, with alcoholic beverages, federal agencies—most notably the TTB—provide extensive guidance on formulation of products, manufacturing processes,[76] labeling, advertising,[77] taxation, and quality control. The TTB's "Beverage Alcohol Manual" provides a comprehensive resource for alcohol producers, with detailed instructions on label design,

74 Kori Hale, "Coca-Cola Dipping into the Cannabis Infused Drink Market," *Forbes*, September 27, 2018, https://www.forbes.com/sites/korihale/2018/09/27/coca-cola-dipping-into-the-cannabis-infused-drink-market/.

75 Amelia Lucas, "Cannabis Fans Everywhere May Get Their Wish as Oreo-Maker Mondelez Eyes CBD-Infused Snacks," CNBC, May 1, 2019, https://www.cnbc.com/2019/05/01/cannabis-fans-may-get-wish-as-oreo-maker-mondelez-eyes-cbd-snacks.html.

76 "Procedures," Alcohol and Tobacco Tax and Trade Bureau, TTB.gov. www.ttb.gov/procedures#95-1 (2 Jan. 2024).

77 Jason R Canvasser, Alyson Acheson, "The Alcohol and Tobacco Tax and Trade Bureau Updates Its Guidance for Industry Members on the Use of Social Media To Advertise Alcohol Beverages," Clark Hill, clarkhill.com, 15 Feb. 2023. www.clarkhill.com/news-events/news/the-alcohol-and-tobacco-tax-andtrade-bureau-updates-its-guidance-for-industry-members-on-the-use-of-social-media-to-advertisealcohol-beverages (8 July 2024).

mandatory statements, and allowable claims, and serves as a primary reference for industry stakeholders to ensure product labels meet federal requirements.[78]

The FDA and the Federal Trade Commission (FTC) provide guidance on issues like standards of identity to functionally define product categories, as well as Good Manufacturing Practices and fair-trade practices. For example, the FTC publishes “Green Guides,” which are guidelines for marketing claims about the environmental impacts of products, often referred to as "green" or "eco-friendly" claims, to ensure they are not deceptive. These guides offer recommendations on how stakeholders can substantiate and qualify such claims or marketing practices to avoid misleading consumers. These guidelines are instrumental in shaping the industry's operations while accommodating variations and intricacies at the state level.

Alcohol as an ingredient shares similar quality and concerns with hemp and hemp-derived substances as a potential ingredient in consumer products. Alcoholic beverages, for example, are often regulated based on factors like concentration, with low-alcohol products like kombucha subject to different regulatory parameters than high-alcohol content products.

Regulation of both alcoholic beverages and products with hemp or hemp derivatives as an ingredient also shares common objectives, such as public safety, quality control, and the prevention of illicit trade. Federal guidance for alcohol focuses on labeling, advertising, taxation, and distribution, aiming to strike a balance between commerce and public health. These principles can be adapted to the new hemp and hemp-derivatives market with due consideration for the unique attributes of hemp products.

## LABELING AND ADVERTISING GUIDELINES

Existing federal guidance for alcoholic beverages includes comprehensive labeling requirements to inform consumers about the product's origin, content, and responsible consumption patterns. These standards could serve as templates for developing hemp-specific labeling and packaging guidance. For instance, guidance can be developed to

[78] “The Beverage Alcohol Manual (BAM): A Practical Guide,” Alcohol and Tobacco Tax and Trade Bureau, TTB.gov, April 2007. www.ttb.gov/images/pdfs/beer-bam/complete-malt-beverage-alcohol-manual.pdf (8 July 2024).

specify the content and format of labels for products containing hemp derivatives, including information on potency, cannabinoid profile or recommended dosage.

Similarly, federal guidance regarding permissible advertising practices, age restrictions, and content guidelines for alcoholic beverages could provide a model for hemp product regulatory guidance to address concerns related to marketing toward minors or promoting false claims.

*… federal guidance regarding permissible advertising practices, age restrictions, and content guidelines for alcoholic beverages could provide a model for hemp product regulatory guidance to address concerns related to marketing toward minors or promoting false claims.*

## QUALITY ASSURANCE AND SAFETY STANDARDS

The alcohol industry adheres to strict quality control standards, ensuring that products meet established safety criteria. Regulatory guidance, particularly from the TTB, provides clarity for industry as federal laws governing alcohol evolve.

Following the 2018 Farm Bill, TTB issued updated guidance regarding the inclusion of hemp ingredients in alcoholic beverages, detailing requirements for the industry to legally produce and sell such products. In consultation with the FDA, TTB guidance holds that it will deny any applications for alcoholic beverage formulas containing hemp ingredients, except for hemp ingredients derived from hemp seed or hemp seed oil.[79] This means that hemp-derived cannabinoids, including those that are nonpsychoactive, cannot be added to any alcoholic beverage in the United States.

[79] "Industry Circulars 19-1," Alcohol and Tobacco Tax and Trade Bureau, 25 April 2019, www.ttb.gov/public-information/industry-circulars/ttb-industry-circulars-19-1 (8 July 2024).

For these products, TTB requires labels to clarify the specific ingredient to make it clear that it is not a controlled substance, specifying for example, the inclusion of "hemp seed oil" as an ingredient rather than "hemp oil."[80] Moreover, TTB guidance prohibits such products from making claims that those products have similar effects to controlled substances.[81]

Another example from 2014 showed the FDA issuing rules governing "gluten-free" claims in response to the emergence of that market.[82] This, in turn, led the TTB to issue documents clarifying the effect of the new rules for alcoholic beverage products, first in 2014 and later in 2020, providing continuously updated guidance for the industry on how they could include such claims in compliance with the new federal rules.[83]

Federal guidance for products with hemp-derived ingredients can establish similar protocols, including maintaining "standards of identity" similar to those for alcoholic beverages, specifying the nature, composition, and essential characteristics of various hemp products. Such standards would provide clarity for the industry regarding the appropriate and applicable regulatory pathways for specific product types, as standards of identity differentiate the rules regarding various categories of alcohol-containing products and facilitate industry compliance with all applicable rules and requirements regarding product safety, accurate labeling, truthful marketing, and testing requirements for contaminants and potency.

> *"As the hemp-derivatives market continues to evolve, it is essential that federal guidance remain flexible, adaptable, and responsive to emerging trends, scientific research, and consumer preferences."*

80 "Frequently Asked Question (FAQ): Alcohol Beverage Formulas and Labels," Alcohol and Tobacco Tax and Trade Bureau, 5 April 2024, www.ttb.gov/faqs/formulas-and-labels-a29 (8 July 2024).

81 Ibid.

82 "Gluten and Food Labeling," Food and Drug Administration, FDA.gov, 16 July 2018. www.fda.gov/food/nutrition-education-resources-materials/gluten-and-food-labeling (8 July 2024).

83 "TTB Ruling Number: 2020-2: Gluten Content Statements in the Labeling and Advertising of Wine, Distilled Spirits, and Malt Beverages," Alcohol & Tobacco Tax & Trade Bureau, TTB.gov, 13 Oct. 2020. www.ttb.gov/rulings/r2020-2 (7 Dec. 2023).

## BALANCING UNIFORMITY AND FLEXIBILITY

As the hemp-derivatives market continues to evolve, it is essential that federal guidance remain flexible, adaptable, and responsive to emerging trends, scientific research, and consumer preferences. For federal guidance to facilitate, rather than hinder, interstate hemp commerce, it must strike a careful balance between providing uniform standards and allowing for regional variation.

Alcoholic beverage regulation, for example, generally serves as a federal minimum standard, allowing state authorities to implement additional rules so long as they comply with federal law. This equilibrium ensures that federal oversight complements potentially diverse approaches states may take while facilitating cooperative regulation between federal and state authorities.

> *… though the FDA has yet to provide a framework for hemp ingredients in food items, a number of states have begun to develop such rules.*

For example, though the FDA has yet to provide a framework for hemp ingredients in food items, a number of states have begun to develop such rules. Minnesota is among the few that has expressly legalized hemp-derived cannabinoids in beverages, with clear rules regarding testing, concentration limits, labeling, and advertising. The state allows non-alcoholic beverages containing hemp-derived cannabinoids, including delta-9 and delta-8 THC, to be sold wherever alcoholic beverages are available, meaning that retailers and bars may sell both alcohol and intoxicating or non-intoxicating hemp-derived cannabinoid drinks, so long as products and sellers comply with the state's other regulations regarding alcohol and cannabinoids.

Several states that have legalized the use of hemp-derived cannabinoids as an ingredient in foods or beverages in intrastate commerce, however, do not yet have comprehensive regulatory frameworks. Texas, for example, legalized consumable hemp in 2018 in line with the new federal rules. While the state does require retailers of such products to obtain a license and imposes testing requirements for hemp-derived material, there is no

requirement to test final products into which those materials have been added, for example when hemp-derived cannabinoids are added to foods and beverages at restaurants.[84] Texas also has yet to impose a minimum purchasing age for hemp-derived cannabinoids.[85]

Federal guidance on the use of hemp-derivatives as ingredients in foods and beverages could reduce the burden that many states face in attempting to establish comprehensive regulatory frameworks governing this nascent and growingly complex market. For states without the necessary resources or expertise, such guidance can serve as a foundation, providing minimum standards and best practices to facilitate the establishment of a well-regulated interstate market without unduly limiting state authorities' ability to adapt their rules as the market and their expertise evolve and as legal, societal, and market dynamics shift.

*Federal guidance on the use of hemp-derivatives as ingredients in foods and beverages could reduce the burden that many states face in attempting to establish comprehensive regulatory frameworks governing this nascent and growingly complex market.*

84 Brittany Britto Garley, "Brace Yourself for Houston's First Cannabis-Infused Dining Experience," Eater Houston, 15 Sep 2022, houston.eater.com/2022/9/15/23355156/houston-wild-montrose-cocktail-coffee-restaurant-dispensary-hemp-thc-cbd-cannabis-openings (8 July 2024).

85 "Texas Senate Considers Ban On Intoxicating Hemp-Derived Delta-8 And -9 THC Products," Marijuana Moment, 15 May 2024, www.marijuanamoment.net/texas-senate-considers-ban-on-intoxicating-hemp-derived-delta-8-and-9-thc-products (8 July 2024).

PART 5

# STATE FRAMEWORK FOR REGULATING HEMP-DERIVED CANNABINOIDS

The scope for state action in the regulation of hemp products will be largely determined by the regulatory approach (or lack thereof) developed at the federal level. In the ideal, standards for manufacture, product safety, labeling, testing and other items highlighted in section 4 would establish a uniform standard for a national market and obviate the need for extensive product-level regulation by states or their political subdivisions.

In the continued absence of clear federal standards, however, states will need to develop a regulatory approach on their own, or perhaps through a collaborative forum such as CANNRA. Collaboration would allow states to develop uniform standards that facilitate cross-border trade as states have done through widespread adoption of the Uniform Sales & Use Tax and the Uniform Commercial Code. In select cases, states may choose to exercise their lawful police powers to regulate more extensively than these basic standards if policymakers believe certain product types threaten the public health or safety.

States have already developed extensive experience in regulating products made from the cannabis plant in their medical and recreational marijuana programs due to federal prohibition of these items. However, the development of state-level regulation of both products and firms has been iterative and disjointed based on the express goal of impeding interstate commerce. States have sought to avoid federal enforcement of marijuana laws by expressly discriminating against marijuana firms and products from beyond their borders to enshrine wholly insular state markets. As these authors have argued elsewhere, we believe these state prohibitions on cross-border marijuana sales likely violate the dormant Commerce Clause and will ultimately be struck down as unconstitutional. There is even greater certainty that states cannot discriminate against out-of-state producers of hemp products because these products are fully lawful under federal law.

*While states may justifiably hope to safeguard the public health by enforcing standards for the cultivation, manufacture, or testing of hemp-derived products and to hold producers accountable, they cannot do so using means that are either expressly or implicitly discriminatory against out-of-state economic interests.*

Therefore, states cannot follow the same path to regulate hemp-derived products as they have in the state-regulated marijuana industry. While states may justifiably hope to safeguard the public health by enforcing standards for the cultivation, manufacture, or testing of hemp-derived products and to hold producers accountable, they cannot do so using means that are either expressly or implicitly discriminatory against out-of-state economic interests.

In other respects, however, the majority of states have developed an understanding of the cannabis plant, the techniques used for extraction of its essential oils, and the preparation and packaging of retail products. This basic knowledge is directly transferable to hemp-derived products. The only difference is whether the cannabis plants used to create these products are grown under a federal license or under a state program.

## ACCEPT WHATEVER FEDERAL GUIDANCE IS AVAILABLE

State policymakers have in some cases attempted to define allowable cannabinoids or differentiate between “intoxicating” and “non-intoxicating” plants or products in state law, but this approach fails to take advantage of the few federal standards that exist within the hemp market. These definitions are already provided under the Farm Bill, albeit arbitrarily, and state laws that diverge from these definitions could burden trade excessively. Federal law does not target products based solely on their potential for intoxication, recognizing the complexities in defining "intoxication" for legal or regulatory purposes. Nonetheless, states may seek to mitigate potential harms associated with intoxicating products. Efforts should focus on establishing regulatory standards based on a product's potential for intoxication rather than drawing a strict legal boundary between what's permissible and illicit.

*Efforts should focus on establishing regulatory standards based on a product's potential for intoxication rather than drawing a strict legal boundary between what's permissible and illicit.*

Take kombucha, for instance, which contains ethanol, the intoxicating component found in alcoholic beverages, albeit in smaller quantities than in beer, wine, and spirits. Still, at up to 0.5% alcohol by weight, kombucha is potentially inebriating, depending on a person’s body weight and how much they consume.[86] Despite its potential for inebriation, kombucha is not subject to the same regulations as ordinary alcoholic beverages. Similarly, alcoholic beverages are typically not prohibited merely for containing higher alcohol concentrations. Instead, states generally adopt a balanced regulatory approach based on the relative risks posed by each product category, implementing measures such as age restrictions to govern their sale.

This approach to regulating alcohol-containing products on the basis of varying intoxicating potential prioritizes consumer safety, ensures product quality, and promotes informed consumer choices through standardized labeling. Similarly, state lawmakers should adopt a pragmatic approach to hemp derivatives, focusing on outcomes like product

[86] Michael Chan, Hong Sy, Jamie Finley, et al., "Determination of Ethanol Content in Kombucha Using Headspace Gas Chromatography with Mass Spectrometry Detection: Single-Laboratory Validation," *Journal of AOAC International*, 6 Aug 2022, www.ncbi.nlm.nih.gov/pmc/articles/PMC8372040.

quality, safety, transparent labeling, and restricting access to potentially intoxicating products for minors.

> *... state lawmakers should adopt a pragmatic approach to hemp derivatives, focusing on outcomes like product quality, safety, transparent labeling, and restricting access to potentially intoxicating products for minors.*

Such an approach would provide clarity for industry stakeholders, instill consumer confidence, and mitigate potential harms without imposing unnecessary regulatory burdens that could impede the legal production, sale, and consumption of hemp-derived products.

## PRODUCT REGULATION

To ensure effective regulation, the oversight of hemp-derived products should adopt a "fit for use" approach, tailoring regulations to the final product or its intended purpose. That is, any proposed regulation of hemp cultivation, processing, and manufacturing should be constructed based on the final hemp-derivative product being produced. For example, manufacturers of finished hemp-flower products should be held to different standards than those producing finished hemp extracts, with different standards for the types of chemicals used in their production, production processes, and final product testing. This strategy allows regulators to concentrate efforts where they would have the greatest impact, avoiding unnecessary burdens that do not benefit consumers or states.

Taking alcohol as an example, it would make little sense for states to impose the same regulations governing the production of grain alcohol as they do for an alcohol-containing product like kombucha, mouthwash, or rubbing alcohol, as these items are used for different purposes and entail different risk profiles. It would be similarly nonsensical to regulate all hemp-derived products the same, overlooking the diverse range and risks of products in this category. Topical creams, foods, beverages, and inhalants produced from hemp-derivatives each have distinct processes for production, chemical compositions, psychoactive effects, and use patterns. They therefore pose different risks to consumers and

public health at large. Regulation of these products should account for those differences, applying the lowest applicable standards to each category based on risk.

The primary risk inherent to consumable hemp-derived products like foods, beverages, and inhalants is the potential for contamination with harmful substances and inaccurate labeling for factors such as potency or allergens. Regulation should address these specific hazards based on the foreseeable use of each product.

*The primary risk inherent to consumable hemp-derived products like foods, beverages, and inhalants is the potential for contamination with harmful substances and inaccurate labeling for factors such as potency or allergens.*

Inhalable products, due to their administration method, arguably pose the greatest risk to consumers. Unlike edible or topical items, which encounter more robust bodily defenses that can mitigate harm, inhaled products directly affect the respiratory system, potentially causing immediate harm to vital organs. The lungs, in particular, are sensitive to irritants, which can lead to inflammation, damage, and increased risk of severe respiratory problems.

However, there is significant variation in risk level even within the category of inhalable hemp derivatives. Hemp-derived extracts, for example, may be susceptible to contamination from solvent residues that are not properly removed during the extraction process. Whole hemp flower, on the other hand, is unlikely to be contaminated by residual solvents, but may face risks from pesticides used during cultivation or mold formation during storage.

To comprehensively address consumer risks associated with different products, state regulation of hemp-derived goods should consider the specific contaminants and risks inherent in production processes for each product category. This involves developing product-specific regulations covering authorized ingredients and formulations, manufacturing and storage standards, as well as product testing requirements tailored to the end product derived from hemp.

> *To comprehensively address consumer risks associated with different products, state regulation of hemp-derived goods should consider the specific contaminants and risks inherent in production….*

## NATURAL VS "SYNTHETIC" CANNABINOID PRODUCTS

The proliferation of hemp-derived cannabinoid products in the legal, illicit, and interstate markets combined with inconsistent legal definitions and treatment creates significant challenges for the enforcement of these rules. A hemp-derived cannabinoid product like delta-8 THC that is legal under the laws of one state—Minnesota, for example—may run afoul of the laws in another, like New York. Determining the legality of products based on cannabinoid profile may require extensive laboratory testing, a time- and resource-consuming process that would fall on law enforcement, leading to infrequent or scattershot oversight.[87]

In addition to the challenges of enforcing cannabinoid-specific bans, the consumer protection justification for targeting certain cannabinoids, particularly those naturally occurring in cannabis plants, is not clear. While isomers of delta-9 THC, like delta-8, have not been as well-studied as delta-9 THC itself, it is generally assumed that they have similar pharmacological effects and risks due to their molecular similarity (the only difference being the location of the double bond). Limited research has begun to confirm this assumption, with delta-8 THC found to be about two-thirds as potent as delta-9 and users reporting similar experiences with both substances.[88] In fact, participants in studies of delta-8 THC report fewer side effects compared to delta-9 THC, though more research is needed.[89]

Concerns regarding products with synthesized, albeit naturally-occurring cannabinoids are valid. The process of converting hemp-derived CBD into delta-8 THC, for example, requires

87 Phil Dixon, "Delta-8 THC (and beyond)," University of North Carolina School of Government, North Carolina Criminal Law Blog, 14 Sept 2021, nccriminallaw.sog.unc.edu/delta-8-thc-and-beyond (8 July 2024).

88 Jessica S. Kruger, Daniel J. Kruger, "Delta-8-THC: Delta-9-THC's nicer younger sibling?" *Journal of Cannabis Research*, Vol. 4 (2022), jcannabisresearch.biomedcentral.com/articles/10.1186/s42238-021-00115-8 (8 July 2024).

89 David J. Hill "Study: Users say delta-8-THC is delta-9's 'nicer younger sibling'," University at Buffalo News Center, 12 Jan 2022, www.buffalo.edu/news/releases/2022/01/009.html (8 July 2024).

solvents and reagents that, if not adequately removed from final products, can pose serious risks to consumer health.[90] Testing of delta-8 THC products on the market has also found contamination by other adulterants, byproducts, and heavy metals that can cause harm to the lungs. Such testing has also found that these products often contain concentrations of THC and other ingredients that are not accurately reflected on labeling.[91]

*...we recommend that state regulatory frameworks focus on rules governing the manufacture and labeling of products, including guidelines regarding appropriate solvents, purity requirements, and mandatory final product testing.*

These risks, while worthy of concern, are not inherent to the cannabinoids themselves, but rather created by specific processing techniques, a lack of uniform testing requirements, and labeling practices. As with delta-9 THC, mitigation of these risks could be accomplished by establishing and enforcing clear regulatory frameworks, whereas simply prohibiting naturally-occurring cannabinoids is both inappropriate and potentially counterproductive if such prohibitions drive consumers to seek out products from unregulated sources.

Instead, we recommend that state regulatory frameworks focus on rules governing the manufacture and labeling of products, including guidelines regarding appropriate solvents, purity requirements, and mandatory final product testing. Canada's regulation of hemp and marijuana cannabinoids provides a useful model of how state regulatory frameworks might establish consistent definitions and regulation for the complete range of cannabinoids in order to ensure consumer health and safety.

90 Written testimony of Gillian L. Schauer, Cannabis Regulators Association, 27 July 2023, oversight.house.gov/wp-content/uploads/2023/07/CANNRA-Written-Testimony_07-2023_Final59.pdf (8 July 2024).

91 Jiries Meehan-Atrash, Irfan Rahman, "Novel Δ8-Tetrahydrocannabinol Vaporizers Contain Unlabeled Adulterants, Unintended Byproducts of Chemical Synthesis, and Heavy Metals," Chemical Research in Toxicology, 17 Jan 2022, https://pubmed.ncbi.nlm.nih.gov/34889611 (8 July 2024).

Under the Canadian Cannabis Act, total THC concentration is the primary factor determining applicable regulations, with products below 0.3% total THC regulated as industrial hemp and those above subject to cannabis regulations, regardless of the plant source. Synthetic cannabinoids are prohibited under Canadian law, but this does not include those naturally present in cannabis plant material, regardless of how they were synthesized. Intoxicating delta-8 THC products above 0.3% total THC are merely required to adhere to the same manufacturing, labeling, and testing requirements as all other intoxicating cannabis products.[92]

In our view, this approach strikes the appropriate balance between consumer protection and flexibility, providing clear and consistent rules to enhance industry compliance and ensure the safety and quality of all cannabinoid products available on the market while preventing the distribution of novel and poorly understood artificial cannabinoids.

## MANUFACTURING STANDARDS

Ensuring consumer access to safe and pure products is a key driver behind the regulation of hemp-derived goods, mirroring the goals of marijuana legalization. This underscores the necessity for specific manufacturing standards and quality control measures.

> *While there may be subtle variations, the production of hemp-derived products is generally similar to that used in the production of medical or adult-use marijuana products.*

While there may be subtle variations, the production of hemp-derived products is generally similar to that used in the production of medical or adult-use marijuana products. Hemp flowers are functionally the same as marijuana flower and the manufacture of delta-8 THC or other hemp-derived cannabinoids mirrors the processes involved in delta-9 THC extraction. Slight differences aside, the expertise, equipment, and solvents utilized in

92 "Guidance on cannabis products with intoxicating cannabinoids other than delta-9-THC," Health Canada website, 5 Dec 2023, www.canada.ca/en/health-canada/services/cannabis-regulations-licensed-producers/intoxicating-cannabinoids.html (8 July 2024).

producing hemp-derivatives are largely interchangeable with those needed for manufacturing marijuana.

> *Given that many states have established uniform standards to govern the production of marijuana products and extracts, state lawmakers and regulators can leverage this expertise to inform their regulation for the manufacture of hemp-derived products.*

Given that many states have established uniform standards to govern the production of marijuana products and extracts, state lawmakers and regulators can leverage this expertise to inform their regulation for the manufacture of hemp-derived products. Broadly, we recommend that these standards focus on approved or prohibited solvents, extraction and refinement techniques, and types of equipment. Regulators might consider mandating that all equipment used in hemp-derived manufacturing be certified by independent standard bearers, such as Underwriters Laboratories or the International Organization for Standardization.

## REGULATION OF ENTITIES

Lawmakers must also decide how to structure licensing for the hemp-derivatives market, considering whether to create separate licenses for those engaged in cultivation, manufacturing, and retailing, as well as whether to allow, prohibit, or require vertical integration.

Within marijuana markets, states have sometimes opted to create distinct licenses for cultivators, manufacturers, and retailers. In some cases, state law strictly prohibits vertical integration, such as in Washington, where the law bars those holding a marijuana dispensary license from acting as a marijuana cultivator, authorizing them to sell only marijuana products purchased from unaffiliated businesses. Cultivators and processing facilities licensed in the state, meanwhile, may sell their products only to licensed dispensaries and may not engage in the retail sale of marijuana. Such division between license types is meant to avoid price gouging and the creation of large cannabis

monopolies that might prevent smaller, more specialized, and more diverse interests from entering and succeeding in the legal market.

On the other hand, some states, like Massachusetts, mandate vertical integration for marijuana suppliers, with dispensaries required to cultivate and process any marijuana they sell. Such requirements are meant to prevent retailers from allowing illicitly supplied marijuana to enter the market. However, this requirement imposes enormous start-up costs for businesses, requiring investment and expertise throughout multiple levels in the supply chain, artificially restricting entry to the legal market and resulting in reduced consumer access to legally-supplied products.[93] Moreover, the rationale for a vertical integration mandate is largely moot in light of seed-to-sale tracking systems that allow regulators to ensure that only authorized products enter the market.

State lawmakers should take care to ensure maximum flexibility for all licensees. In particular, any permitting or licensure required to participate at any level of the supply chain should not preclude licensees from applying for and receiving additional licenses. For example, hemp farmers have advocated for the USDA to offer dual hemp cultivation licensing nationwide, differentiating "industrial hemp" (hemp grown for fiber and grain) from "horticultural hemp" (hemp grown for its flower or cannabinoid extraction).[94] States adopting similarly tiered licensing should afford the holders of one license type the ability to apply for and receive additional licenses, allowing them the flexibility to respond to changes in the industry, consumer demand, and their specific business concerns.

> *"As hemp derivatives face fewer federal-state conflicts than marijuana, there's less justification for overly restrictive licensing requirements."*

93 Scot Lehigh, "Medical marijuana retailers should not have to grow their own crops," *Boston Globe*, 5 Feb 2023, www.bostonglobe.com/2023/02/05/opinion/medical-marijuana-retailers-should-not-have-grow-their-own-crops (8 July 2024).

94 National Industrial Hemp Council of America comments on the U.S. Senate Farm Bill, 6 Jun 2023, nihcoa.com/senate-ag-fb-covletmcomment-submitted.

As hemp derivatives face fewer federal-state conflicts than marijuana, there's less justification for overly restrictive licensing requirements. For instance, a requirement for vertical integration would not be workable in the context of a national market where producers may be located in a different state. Any requirement for vertical integration would therefore have the effect of discriminating against out-of-state economic interests and would violate the Commerce Clause.

For these reasons, we encourage legislators constructing regulatory oversight of the hemp-derivatives market to avoid creating hemp-specific licensure requirements at any level of the supply-chain. Instead, states should leverage their existing frameworks governing other potentially intoxicating consumer products, like alcohol and tobacco. Under this approach, entities already authorized to cultivate hemp, sell age-gated products, or manufacture botanical extracts should be able to apply for and receive permission to expand their operations to hemp-derivative production or sales, so long as they comply with minimum standards for quality and safety of hemp derivatives specific to the type of end product involved.

## RETAIL SALES

The presence of cannabis-specific retail outlets or dispensaries primarily stems from states' desire to evade federal enforcement, rather than scientific or consumer welfare factors. In reality, the potential health risks associated with cannabinoids are arguably no greater than those of other legally available adult products like alcohol.

> *...there is little justification for limiting the sale of hemp-derived products to specialized retailers. Such restrictions would merely replicate the consumer access issues observed within state legal marijuana markets.*

Given that hemp derivatives appear to pose no greater risk than traditional marijuana products yet do not face the same potential conflict with federal law, there is little justification for limiting the sale of hemp-derived products to specialized retailers. Such restrictions would merely replicate the consumer access issues observed within state legal marijuana markets.

Instead, we encourage lawmakers to align any restrictions imposed on hemp derivative sales with those applicable to the retail sale of alcoholic beverages, with minimal restrictions on the sale of low-THC hemp products and age-based restrictions on higher-THC products. Convenience stores, liquor stores, and pharmacies have a proven track record of complying with minimum age laws for tobacco, alcohol, and other restricted items. There is no significant reason to doubt their ability to adhere to regulations if permitted to sell hemp-derived cannabinoid products to adults. Lawmakers should establish a process whereby retailers authorized to sell other age-restricted products may receive permission to sell hemp-derived THC products, provided they comply with state regulations.

## MARKET ENTRY AND LICENSING

Regulation of hemp-derived products aims to transition consumers from illicit markets to legal ones, prioritizing consumer protection and law enforcement. To achieve this goal, regulations governing the hemp-derivatives market must create clear and viable paths for compliant businesses and products to enter the market, fostering robust competition and adequately meeting consumer demand.

*Replicating marijuana regulatory frameworks for hemp would impede market efficiency and impose needlessly high barriers to market entry for hemp producers, processors, and retailers.*

Although modeling hemp regulation after regulatory frameworks governing medical or adult-use marijuana might seem logical, these schemes are often unnecessarily intricate and restrictive, due to the need to work around federal marijuana prohibition. Replicating marijuana regulatory frameworks for hemp would impede market efficiency and impose needlessly high barriers to market entry for hemp producers, processors, and retailers. Rather than imposing similarly restrictive frameworks for hemp products, state lawmakers should seek to achieve regulatory parity between the two markets by reducing regulatory burdens on marijuana businesses.

Though some states, such as California and Michigan, impose no statewide cap on the number of available marijuana licenses, many impose arbitrary limits on the number of marijuana-related businesses that may legally enter the market. For example, Nevada limits the number of dispensary licenses to 120 statewide, with regulators assessing applicants and granting licenses based on a scoring system. Arizona's medical marijuana program limits the number of marijuana dispensaries based on the number of licensed pharmacies in the state, allowing one dispensary for every 10 pharmacies.[95]

> *... artificially restricting legal entry into the market may have the undesirable effect of perpetuating illicit-market sales and may also hinder diversity and innovation within the legal market.*

Such limits on licenses are purported to facilitate easier oversight and allow for better control over market stability. However, artificially restricting legal entry into the market may have the undesirable effect of perpetuating illicit-market sales and may also hinder diversity and innovation within the legal market.[96] Enforcing similar limits on available licenses for the hemp derivatives market would create similar barriers to entry, inadvertently driving consumers and businesses toward illicit and unregulated suppliers and products, undermining oversight, and complicating efforts to ensure compliance and consumer safety.[97]

To balance the states' interest in oversight with the need to support a viable, legal market for hemp derivatives, we recommend that states avoid arbitrary limits on market entry for all levels of the supply chain. Instead, they should adopt a licensing scheme whereby any businesses meeting the state's minimum requirements may operate in the legal market.

95 Michael Rosenblum, Barry Weisz, "Cannabis State-by-State Regulations," Thomas Coburn LLP, October 2023, www.thompsoncoburn.com/docs/default-source/acartha/cannabis-state-by-state_2023.pdf.

96 Jeff Smith, "Limited-license marijuana markets hamper diversity and equity, study says," MJBizDaily website, 16 Feb 2022, mjbizdaily.com/limited-license-marijuana-markets-hamper-diversity-and-equity-study-says.

97 Susan Gunelius, "The Biggest Barrier to Reducing Illicit Cannabis Sales is Regulations," Cannabis Business Executive website, 27 March 2023, www.cannabisbusinessexecutive.com/2023/03/the-biggest-barrier-to-reducing-illicit-cannabis-sales-is-regulations.

This approach would better facilitate regulatory oversight and encourage competition and consumer access, ultimately resulting in lower prices and reduced interest in illicit products.

## ADMINISTRATION

When crafting regulations for consumable hemp products, policymakers must carefully designate the agency or agencies responsible for enforcement. States have approached marijuana regulation by assigning oversight to public health, taxation, revenue, agriculture, or consumer protection agencies. Some states, like Washington, have established dedicated regulatory bodies, while others, like Illinois, divide authority among multiple agencies.[98]

Existing state agencies often offer a faster path to regulatory enforcement than newly created ones, although they may face institutional biases and conflicting missions. Thus, selecting an agency with both institutional expertise and flexibility to adapt to market changes is crucial.

> *For hemp cultivation, regardless of final product, regulatory authority should be vested in the state agricultural agency. Other aspects of the supply chain, such as processing, storage, transportation, and retail sales, should be regulated based on the intended final hemp product.*

For hemp cultivation, regardless of final product, regulatory authority should be vested in the state agricultural agency. Other aspects of the supply chain, such as processing, storage, transportation, and retail sales, should be regulated based on the intended final hemp product. For instance, state health authorities can enforce manufacturing standards for hemp flower, extracts, and inhalable products to ensure quality and safety, as well as transparent labeling requirements to inform consumers about product type, potency, and risks.

98 Geoffrey Lawrence and Matt Harrison, "A conceptual framework for state efforts to legalize and regulate cannabis," Reason Foundation, 1 March 2019, reason.org/wp-content/uploads/conceptual-framework-state-efforts-to-legalize-regulate-cannabis.pdf.

## TAXES

States may be optimistic about the potential revenue from the burgeoning hemp and hemp-derived products markets. However, they are also understandably cautious about the enforcement costs these new markets might incur on state budgets. While taxation serves as a means to collect revenue and offset costs, lawmakers must carefully design hemp tax systems to prevent unintended hindrances to legal hemp markets. This entails ensuring reasonable tax rates and avoiding unnecessarily burdensome complexities or costs in tax assessment.

Excessively high or complex taxes typically result in higher final prices for consumers in the legal market. This phenomenon has been observed in newly legalized marijuana markets, where prices surpass what businesses and consumers are willing to pay, driving them towards illicit suppliers and undermining the legal market's competitiveness.[99] Indeed, the high cost of legal marijuana products in many states is likely a driving factor behind rising consumer interest in alternative products, such as delta-8 THC.

> *Taxation should ideally occur solely at the point of sale for finished hemp-derived goods, set at a non-punitive rate that will not divert sales toward illicit sources.*

Taxation should ideally occur solely at the point of sale for finished hemp-derived goods, set at a non-punitive rate that will not divert sales toward illicit sources. Unlike some states' multi-level tax systems for marijuana, which tax cultivators, manufacturers, and retailers separately, a simpler tax approach mitigates business costs, enhances profitability, and streamlines both the compliance and enforcement costs of taxation. Moreover, within the context of a national market, wholesale producers are often beyond the taxing jurisdiction of any particular state.

[99] Geoffrey Lawrence, "The Impact of California's Cannabis Taxes on Participation within the Legal Market," Reason Foundation policy study," May 2022, https://reason.org/policy-study/the-impact-of-california-cannabis-taxes-on-participation-within-the-legal-market/.

The intricate and high-tax structure in California's legal adult-use cannabis market, as an example, has contributed to lower-than-expected tax revenue, with an estimated two-thirds of cannabis sales still conducted illegally.[100] In response, California legislators recently reformed their tax system, abolishing the cultivation tax and shifting the collection of excise taxes from distributors to retailers.[101] Washington similarly adjusted its marijuana taxation scheme in 2015, eliminating the 25% gross receipts tax assessed at every point of inventory transfer (between cultivators and processors, processors and retailers, retailers and consumers), and imposing a single retail excise tax of 37%, addressing similar concerns.[102]

Ad valorem marijuana taxes assessed at the wholesale level pose challenges for state regulators. Some wholesalers and retailers operate under common management or ownership, which would allow these entities to evade wholesale taxation by manipulating transfer pricing. Regulators have responded by developing intricate calculations of market pricing based on the assumption of an arms-length transaction and then applied this periodic calculation to inventory transfers based on weight. This results in substantial administrative costs and a higher effective tax rate for lower-quality products, potentially influencing business and consumer behavior.

> *... to prevent compounding taxation issues, state hemp regulations should limit local authorities' ability to impose additional taxes, either by retaining sole taxing authority at the state level or by imposing caps on local tax levels.*

100 Michelle Minton, Geoffrey Lawrence, "Marijuana rescheduling is good news, but California still needs to reduce state taxes and regulations," Reason Foundation website, 17 May 2024, reason.org/commentary/marijuana-rescheduling-is-good-news-but-california-still-needs-to-reduce-state-taxes-and-regulations.

101 Geoffrey Lawrence, “California Repeals Cannabis Cultivation Tax,” Reason Foundation commentary, July 12, 2022, https://reason.org/commentary/california-repeals-cannabis-cultivation-tax/.

102 Benjamin Hansen, Keaton Miller, Caroline Weber, "The Taxation of Recreational Marijuana: Evidence from Washington State," National Bureau of Economic Research, July 2017, www.nber.org/system/files/working_papers/w23632/revisions/w23632.rev0.pdf.

To address these challenges, states considering hemp-specific taxes should levy them solely at the retail level. Additionally, to prevent compounding taxation issues, state hemp regulations should limit local authorities' ability to impose additional taxes, either by retaining sole taxing authority at the state level or by imposing caps on local tax levels.

## HOME CULTIVATION

State laws should authorize the cultivation of "homegrown" hemp-derived products. Many states allow limited cultivation of marijuana plants for personal use, and similar provisions should apply to hemp cultivation. Legislators should ensure clarity in existing marijuana laws or include specific language in new hemp-derived laws to expressly legalize home cultivation of hemp. This not only prevents confusion among enforcement agencies but also provides consumers with a legal alternative to illicit suppliers if state-authorized products are inaccessible or unaffordable.

*Legislators should ensure clarity in existing marijuana laws or include specific language in new hemp-derived laws to expressly legalize home cultivation of hemp.*

## PRODUCT TESTING

Similar to marijuana, consumable hemp derivatives are intended for human ingestion, raising concerns about public safety. Quality testing aims to ensure products are free from harmful contaminants, comply with state laws, and provide accurate labeling information for consumers.

Typically, states mandate testing for all marijuana products at the wholesale level, with cultivators or producers conducting tests and affixing results to product labels prior to wholesaling those products to retailers. Many states have also established specialized licenses for testing facilities within the marijuana industry, prohibiting financial ties with other marijuana interests to maintain independence. These facilities are tasked with setting

testing and procedural standards, with some states conducting tests directly through regulatory agencies.

Consumable hemp-derived products pose similar risks for consumers and regulators, with legitimate concerns about contamination, adulteration, and mislabeling. However, states will need to align testing standards for hemp products with one another to avoid creating barriers that effectively discriminate against out-of-state economic interests. This is a clear area for collaboration between the states.

## TESTING PRIOR TO POINT OF SALE

Contaminants and toxins that might pose a risk to consumers can enter hemp products during cultivation. Importantly, however, the risk of contamination doesn't disappear once hemp leaves the farm, and the risk any of these impurities may pose to consumer ultimately depends on the quality or purity of finished products.

> *To prioritize consumer safety, testing standards should focus on the intended end product and be applicable at the latest stage prior to sale.*

To prioritize consumer safety, testing standards should focus on the intended end product and be applicable at the latest stage prior to sale. These requirements should primarily target manufacturers of finished hemp products to ensure all potentially harmful substances are removed before sale and labels accurately reflect testing results.

In general, we suggest policymakers concentrate testing requirements on product purity and potency, applying these mandates solely to manufacturers of finished consumable hemp goods. It's essential to develop end-product-specific testing standards based on

product type and reference third-party standards for potential contaminants, such as those from the Environmental Protection Agency.[103]

This approach avoids redundant testing in early stages of hemp product manufacturing, concentrating requirements where they most accurately reflect product safety and quality before sale. Additionally, testing mandates should be flexible, allowing licensees to adapt procedures to their production methods while meeting minimum safety standards.

To prevent strain on state resources and industry bottlenecks, we discourage designating state laboratories as the sole authorized testing lab. Instead, states should establish broad standards for testing procedures and authorize qualified third parties to serve as testing facilities.

## LABELING AND ADVERTISING

State regulations on marijuana typically establish basic labeling requirements, such as disclosing THC concentration and implementing measures to prevent youth access, such as child-proof packaging. Some states go further by banning branding or advertising that might appeal to children. Some, like California, additionally mandate a universal symbol to indicate that products contain marijuana and may be intoxicating. Many also impose mandatory warnings about the potential risks of consuming such products.

> *… we encourage policymakers to create packaging and labeling standards tailored specifically to higher THC hemp products, with potency disclosures and risk warnings, while instituting labeling requirements for low-THC hemp products that are similar to other consumer goods.*

[103] Geoffrey Lawrence and Matt Harrison, "A conceptual framework for state efforts to legalize and regulate cannabis," Reason Foundation, 1 March 2019, reason.org/wp-content/uploads/conceptual-framework-state-efforts-to-legalize-regulate-cannabis.pdf.

Similar to the contrast between kombucha and alcoholic beverages, it would be illogical to apply the same labeling and packaging standards for all hemp-derived goods, such as those with high total THC and those with only residual THC unlikely to cause intoxication. For these reasons, we encourage policymakers to create packaging and labeling standards tailored specifically to higher THC hemp products, with potency disclosures and risk warnings, while instituting labeling requirements for low-THC hemp products that are similar to other consumer goods.

## INVENTORY TRACKING

States with commercial marijuana production or sales typically mandate some form of inventory tracking to monitor the movement of plant materials or packaged products. This often involves using radio frequency identification (RFID) tags with unique identifiers for continuous tracking throughout the supply chain. State regulatory agencies access this data to reconcile sales and purchasing records, identifying any discrepancies or potential unlawful diversion.

While these systems ensure the continuous accountability of marijuana products and materials, they are time-consuming and costly to maintain. For instance, new data must be entered into the system each time a plant or product is moved, and RFID tags, which cannot be reused, must be continually purchased.

> *... mandates for detailed tracking of individual plants and products often incur greater costs than benefits. Hence, we recommend that state lawmakers establish basic parameters of proper inventory control for businesses that handle hemp-derived products without administering a state-monitored inventory database.*

Such rigorous inventory tracking for marijuana arose largely from the need for states to demonstrate "strong and effective regulatory enforcement" to prevent lawful marijuana

from being diverted unlawfully and avoid federal interference.[104] However, this same necessity does not exist for hemp-derived goods and, it is worth noting, states rarely impose such strict inventory control requirements on other controlled products, like alcohol.

Certainly, businesses may find value in inventory tracking procedures to avoid theft or diversion of products, and many may voluntarily adopt them to protect their inventory value or to better implement age-gating requirements. Yet, mandates for detailed tracking of individual plants and products often incur greater costs than benefits. Hence, we recommend that state lawmakers establish basic parameters of proper inventory control for businesses that handle hemp-derived products without administering a state-monitored inventory database. A feasible option may be batch-level tracking, used in states like Maine for cannabis products, under which an entire harvest is assigned a unique identifier and tracking numbers are updated as materials move through production.[105]

*“The ability for law enforcement to accurately identify legal versus illegal products is not only critical for preserving law enforcement resources, but also for ensuring that businesses and consumers compliant with state law do not face inappropriate and potentially costly enforcement action.”*

## LAW ENFORCEMENT

Law enforcement faces significant hurdles in distinguishing among illicit marijuana, state-legal medical or recreational marijuana, and federally legal hemp. The ability for law enforcement to accurately identify legal versus illegal products is not only critical for

[104] U.S. Deputy Attorney General James Cole, “Memorandum for All United States Attorneys: Guidance Regarding Marijuana Enforcement,” August 29, 2013, www.justice.gov/iso/opa/resources/305201382913275685746 7.pdf.

[105] "Batch Tracking Agreement Reached for Maine’s Adult Use Cannabis Program (AUCP)," Maine Office of Cannabis Policy, 13 Apr. 2023, https://www.maine.gov/dafs/ocp/sites/maine.gov.dafs.ocp/files/2023-04/FSBT%20White%20Paper.pdf (8 July 2024).

preserving law enforcement resources, but also for ensuring that businesses and consumers compliant with state law do not face inappropriate and potentially costly enforcement action. As policymakers craft regulatory frameworks for hemp-derived products, it's imperative to equip law enforcement with the resources and support needed to effectively identify such products and enforce state laws judiciously.

To address these challenges, lawmakers must provide law enforcement with clear directives, guidelines, and mechanisms for coordination with relevant regulatory bodies. This includes offering comprehensive training programs to help officers accurately identify and differentiate between various cannabis products and clearly understand the legal distinctions and limitations associated with hemp derivatives versus marijuana.

Furthermore, establishing robust communication channels and collaboration protocols between law enforcement agencies and regulatory authorities is crucial. For example, states might require hemp shipments to carry a manifest. In the absence of centralized federal tracking, states could maintain a shared database against which law enforcement could verify manifests regarding hemp in-transit.[106] This collaborative approach enables the sharing of critical information, detection of illicit activities, and enforcement of regulations governing hemp cultivation, processing, and distribution.

*In addition to training and coordination, investing in advanced technology and testing methods can enhance law enforcement's ability to distinguish between hemp and marijuana products with precision.*

In addition to training and coordination, investing in advanced technology and testing methods can enhance law enforcement's ability to distinguish between hemp and marijuana products with precision. This may involve the development of portable testing kits or access to specialized laboratories capable of conducting thorough analyses to determine THC levels in confiscated items. In any event, state regulatory frameworks

[106] "New Jersey Hemp Program Rules" New Jersey Administrative Code § 2:25-3.1, https://www.nj.gov/agriculture/rule/NJDA%20Hemp%20program.pdf (8 July 2024).

should seek to identify bad actors and prevent the introduction of mislabeled, adulterated, or unsanctioned products through means other than on-the-spot product testing. Such resource-intensive efforts should be reserved to verify suspected non-compliance identified through other oversight mechanisms, such as inaccurate shipping manifests, discrepancies in inventory records, suspicious manufacturing behavior, or reports from industry whistleblowers.

Public awareness campaigns can play a pivotal role in educating consumers, retailers, and law enforcement personnel about the legal status and characteristics of hemp-derived products. By increasing awareness and understanding, these initiatives can help prevent misunderstandings and inadvertent violations of the law.

*Public awareness campaigns can play a pivotal role in educating consumers, retailers, and law enforcement personnel about the legal status and characteristics of hemp-derived products. By increasing awareness and understanding, these initiatives can help prevent misunderstandings and inadvertent violations of the law.*

By addressing these issues comprehensively and collaboratively, policymakers can empower law enforcement to navigate the complexities of regulating hemp-derived products effectively while upholding public safety and regulatory compliance.

PART 6

# STATE REFORMS TO MAINTAIN COMPETITIVENESS OF MARIJUANA PRODUCTS

In tandem with reforms governing hemp and hemp-derived cannabinoids, state authorities should consider streamlining, easing, or eliminating state regulations that hamper the competitiveness of licensed marijuana businesses. Politically, marijuana businesses represent one of the primary opponents to the legalization and availability of hemp-derived cannabinoid products. Existing licensees in state-regulated marijuana markets may view hemp derivatives as unfair competition because marijuana licensees face costs and regulatory burdens to which producers of hemp products are not subject.

The differential treatment of marijuana and hemp has set the stage for conflict between businesses that handle materials produced by the same plant.[107] The high cost of tax and regulatory burdens facing state marijuana licensees is a motivating factor for consumers to seek alternatives both within the federally legal hemp market and from providers of illicit

[107] Ben Adlin, "State Cannabis Regulators Urge Congress To Change Hemp And Cannabinoid Rules Through 2023 Farm Bill," Marijuana Moment, 18 Sep. 2023, www.marijuanamoment.net/state-cannabis-regulators-urge-congress-to-change-hemp-and-cannabinoid-rules-through-2023-farm-bill (8 July 2024).

marijuana.[108] For example, in California—where licensed marijuana businesses face an extremely burdensome effective tax rate—two-thirds of cannabis purchases continue to be made through illicit channels.[109] High tax and regulatory burdens also limit the profitability of legal markets for marijuana licensees, with fewer than 25% of legal marijuana businesses reportedly turning a profit in 2023.[110]

*High tax and regulatory burdens also limit the profitability of legal markets for marijuana licensees, with fewer than 25% of legal marijuana businesses reportedly turning a profit in 2023.*

Rather than protecting struggling marijuana businesses and markets from new competitors, state lawmakers should instead seek to reduce the tax and regulatory burdens that cause legal marijuana businesses to struggle and put them at a competitive disadvantage compared to hemp businesses. Easing market entry, loosening licensure requirements, and reducing oversight and tax burdens on state-licensed marijuana businesses would achieve greater parity between hemp and marijuana, allowing both sectors to compete on a more even playing field and increasing potential end-markets for hemp and cannabis cultivators.

Broadly, we recommend a package of reforms to state marijuana laws that would establish identical packaging, labeling, and testing requirements for intoxicating hemp and marijuana products and subject both sets of products to the same advertising requirements. Both sets of goods should face a single, simplified tax structure and both should operate in an open, dynamic market wherein the entry and exit of firms is unimpeded. Inventory

[108] Geoffrey Lawrence, "Consumers Say Price and Availability Are Barriers to Choosing Legal Cannabis Products over Illicit Products," Reason Foundation commentary, June 1, 2022, https://reason.org/commentary/consumers-say-price-and-availability-are-barriers-to-choosing-legal-cannabis-products-over-illicit-products/.

[109] Michelle Minton, Geoffrey Lawrence, "Marijuana rescheduling is good news, but California still needs to reduce state taxes and regulations," Reason Foundation website, 17 May 2024, reason.org/commentary/marijuana-rescheduling-is-good-news-but-california-still-needs-to-reduce-state-taxes-and-regulations.

[110] "Less than 25% of US cannabis operators profitable, study finds," MJBiz Daily, 23 June 2023, mjbizdaily.com/less-than-25-of-u-s-cannabis-operators-profitable-study-finds (8 July 2024).

tracking for marijuana products should be substantially simplified and interstate competition within both markets should not be imperiled by state law.

## SINGLE TAX FOR INTOXICATING CANNABIS GOODS

Special excise taxes for intoxicating consumer goods are a common method used to finance programs that mitigate the potential social costs of addiction or other harms. To the extent intoxicating cannabis goods create these harms, we estimate there will be little difference between hemp-derived cannabinoid products and state-licensed marijuana products. The difference between these products lay only within the legal definitions of the source material.

At the same time, we recognize that state tax structures applying to marijuana are often highly complex and punitive to the point that they encourage market participants to seek other avenues for settling supply and demand, including through both hemp-derived cannabinoids and illicit marijuana. We propose instead that states apply a single, uniform excise tax to the sale of all intoxicating cannabis products, regardless of source. This tax should be applied at the retail level only as hemp products are often produced beyond the taxing jurisdiction of any particular state (and, in our estimation, this will eventually be true of marijuana products as well). Further, this tax should be assessed at rates that do not inspire consumers to seek alternative intoxicating cannabis products from illicit sources. Policymakers should view the legitimization and proper regulation of the cannabis market as the overriding policy goal rather than simple maximization of public revenues. We believe a uniform retail cannabis excise tax in the neighborhood of five percent *ad valorem,* exclusive of ordinary sales tax, would accomplish this important policy goal while also providing sufficient resources to reimburse states for their cost of regulation.

> *Similar to tax treatment, states should subject intoxicating cannabis products to a single set of packaging, labeling and testing requirements, as well as advertising restrictions.*

## UNIFORM PACKAGING, LABELING AND TESTING REQUIREMENTS AND ADVERTISING RESTRICTIONS

Similar to tax treatment, states should subject intoxicating cannabis products to a single set of packaging, labeling and testing requirements, as well as advertising restrictions. From a standpoint of product safety, hemp cannabinoid products are inherently prone to the same risks as marijuana products that might be permissible under state law. The possibility of contamination from excess pesticides, heavy metals, unrecovered solvents, or biologic contaminants like mold is essentially identical between the two sets of products. Moreover, the potential of youth access to these products is equally concerning.

While we believe states should collaborate to standardize the packaging, labeling and testing requirements of all cannabis goods in anticipation of open interstate commerce, this imperative takes on new timeliness given that there is already no ambiguity about market participants' ability to trade hemp products in interstate commerce. Labels should clearly indicate that the product contains intoxicating cannabis products, whether the origin is hemp or marijuana, and may include the adoption of a universal symbol. Policymakers may wish to require warning labels advising against consumption for individuals with potential contraindications.

The commercial free speech doctrine is stronger under some state constitutions than in others and states have adopted differing restrictions on the advertisement of marijuana products. Some allow posting on billboards and taxi cabs while others more strictly regulate the advertising medium. We take no position on this and believe states should be free to adopt whatever advertising standard they deem appropriate within their police powers. However, states should apply the same standard to all forms of intoxicating cannabis products, regardless of the source material. If a marijuana producer is allowed to advertise on a billboard, a hemp producer offering a nearly identical intoxicating substance should also be allowed to do so.

## PRODUCER LICENSING AND REGISTRATION

Many states authorizing a commercial marijuana market have restricted the availability of licenses to participate in that industry. These restrictive licensing structures raise the barriers to entry for aspiring entrepreneurs, restrict market dynamism and innovation, and reduce competitive pressures to the detriment of the consuming public. This artificial scarcity leads to

higher prices for legal goods and encourages consumers to seek alternative supply channels, including both hemp-derived cannabinoids and illicit marijuana.

> *… restrictive licensing structures raise the barriers to entry for aspiring entrepreneurs, restrict market dynamism and innovation, and reduce competitive pressures to the detriment of the consuming public.*

By contrast, intoxicating hemp products can be created anywhere within the 50 states and shipped to a wide variety of retailers or directly to consumers even within states that restrict the availability of marijuana licenses.

Policymakers should recognize that these dynamics have distorted the market in favor of hemp-derived products that consumers might not choose if all cannabis goods competed on an equal playing field.

At the same time, hemp-derived products are sometimes offered under transient branding without clear originating information for the producer. Sometimes retail packagers mix extract batches made by different wholesalers that may be of varying quality.[111] This lack of transparency impedes efficient market function because consumers and other interest groups may not have a means of pursuing legal recourse in case of damages if they cannot determine the maker of a product. Just as states require foreign corporations doing business in their state to register with the agency that handles corporate formations, entities selling intoxicating hemp products should at least be required to register with state regulatory authorities.

These issues imply that states should seek a middle ground between the existing licensing framework for marijuana companies and the lack of any such framework for hemp companies. Regulators should be aware of who is selling intoxicating cannabis products within their state, but should not push market participants toward the hemp market simply to avoid regulatory costs or the unavailability of commercial marijuana licenses. Instead,

[111] Douglas Rohrer, "Fly by Night: Do Your Gummies Take the Red-Eye?" Cannabis Industry Journal, August 31, 2022, https://cannabisindustryjournal.com/column/fly-by-night-do-your-gummies-take-the-red-eye/.

policymakers should drastically reduce the financial and nonfinancial barriers to obtaining a commercial license to produce wholesale marijuana goods and allow any qualified applicant to obtain one. This change would place producers of marijuana goods and competing hemp goods on a more even playing field while continuing to respect states' unique need to implement effective controls over the marijuana market to avoid federal intervention.

*… policymakers should drastically reduce the financial and nonfinancial barriers to obtaining a commercial license to produce wholesale marijuana goods and allow any qualified applicant to obtain one.*

## MERGE RETAIL

Intoxicating hemp goods are often sold through gas stations, grocery stores, and even online retailers. By contrast, competing marijuana goods are offered only at state-licensed retail storefronts that typically forbid the sale of any other type of product. This limitation on retail outlets for marijuana is highly inefficient for both licensees and consumers. Large department stores proliferate, for instance, because consumers find it time-consuming and inconvenient to go to a different store for every item they wish to purchase.

Although state policymakers may believe it an appropriate exercise of their police power to restrict the sales of marijuana products to certain physical storefronts, they should recognize that any retailer with the competency to safeguard controlled inventory for age-gated products like alcohol or tobacco can also do so for marijuana products. The retail function across these classes of products is essentially the same. Moreover, retailers offering alcohol and tobacco products in many states are already offering intoxicating hemp products for sale.

Rather than retaining the sale of state-licensed marijuana products in a retail silo that excludes open competition with intoxicating hemp products, policymakers should allow these products to compete openly on the same store shelves. Any retailer who can

demonstrate competency for appropriate age-gating should be free to apply for a retail cannabis license that allows them to purchase and resell both state-licensed marijuana products and intoxicating hemp products. These retailers would simultaneously need to apply for a state cannabis tax certificate through which they would assess and remit a uniform cannabis retail excise tax on these products.

We recognize that this proposal is sure to be met with resistance from existing state-licensed marijuana retailers who seek to exclude potential competitors from the marketplace. However, the entrepreneurs and investors in this marketplace demonstrated a high degree of risk tolerance by launching a business that operates in violation of federal law and, especially in states that arbitrarily limit the availability of retail licenses, have often enjoyed a privileged position in the marketplace for a number of years. Moreover, we do not view the normalization of an industry to more closely parallel those of other consumer goods to represent any form of regulatory taking. In our view, it was always inevitable that the structure of state-licensed marijuana markets would change, whether due to federal legalization or to the emergence of competing products like hemp-derived cannabinoids.

*“Federal law does not require a permit for interstate transit of hemp products, but many states do.”*

## BATCH TRACKING FOR MARIJUANA PRODUCERS

A key difference in compliance costs between hemp and cannabis producers is in the granularity, and associated resource intensiveness, of tracking systems. Hemp farmers and producers often track products based on an entire harvest, or a batch basis. Although federal guidelines don’t necessarily require inventory tracking, a patchwork of state laws relating to hemp transport has inspired many hemp producers to adopt these practices to avoid seizure of hemp products while in transit. Federal law does not require a permit for interstate transit of hemp products, but many states do. Hemp producers have developed industry best practices that include a transport manifest with a shipment that can demonstrate chain of custody of a batch upon request, along with a certificate of analysis from an independent testing laboratory demonstrating the material is compliant with delta-

9 THC limitations.[112] By contrast, marijuana licensees in most states must track every plant or package individually, affix a unique RFID tag, and report all movements, conversions or dispositions of inventory in a regulatory database to which regulators have continuous, real-time access.

The difference in these procedures entails a significant difference in cost of production. States originally began to implement computerized track-and-trace systems with individual item counts based on their interpretation of what federal guidance called "strong and effective regulatory and enforcement systems" toward which the U.S. Department of Justice would defer strict marijuana enforcement. This language appeared in a 2013 memo to federal prosecutors issued by then-Deputy Attorney General James Cole.[113] However, no notice issued by the Justice Department has ever specifically stipulated that states must implement highly granular computerized tracking systems. What's more, the 2013 Cole Memo was rescinded by then-Attorney General Jeff Sessions in early 2018.[114] Although state policymakers may believe a granular computerized inventory tracking system is necessary, it is unclear this is actually a requirement to prevent federal intervention within state marijuana markets, and, in any case, states could likely reduce compliance costs for licensees to a level comparable with those of hemp producers by requiring tracking only on a batch basis, rather than on the basis of individual plants or packages.

> *"…states' existing bans against the import of marijuana products made beyond their borders is unconstitutional because they would usurp Congress's exclusive power to regulate interstate commerce under the Commerce Clause."*

[112] High Grade Hemp Seed, "Hemp Transportation: Challenges of Shipping Hemp," June 08, 2021, https://highgradehempseed.com/blog/the-challenges-of-hemp-transportation/.

[113] Deputy Attorney General James Cole, "Memorandum for All United States Attorneys: Guidance Regarding Marijuana Enforcement," April 29, 2013, https://www.justice.gov/iso/opa/resources/305201382913275685746 7.pdf.

[114] Attorney General Jefferson B. Sessions, "Memorandum for All United States Attorneys: Marijuana Enforcement," January 4, 2018, https://www.justice.gov/opa/press-release/file/1022196/dl.

## ALLOW OPEN INTERSTATE COMMERCE

A final recommendation to level the playing field for intoxicating hemp and marijuana products is to allow producers of marijuana products to access broad, interstate markets in the same way hemp producers can do. As we have demonstrated elsewhere, federal jurisprudence surrounding the Commerce Clause makes clear that states cannot erect barriers to interstate commerce that discriminate against out-of-state economic interests. The preponderance of federal rulings to date affirms this is true even if the underlying product is criminal in nature. Therefore, states' existing bans against the import of marijuana products made beyond their borders is unconstitutional because they would usurp Congress's exclusive power to regulate interstate commerce under the Commerce Clause.[115]

Any state is free to use its police power to restrict an entire class of products which it believes might endanger public health or safety, such as marijuana products, but if a state allows these products to be sold by producers located within their borders, they must allow the sale of products made in other states on equal terms.

> *State policymakers should agree to remove their unconstitutional bans against the import of marijuana and allow state-licensed marijuana producers to export to purchasers in any other state.*

State policymakers should agree to remove their unconstitutional bans against the import of marijuana and allow state-licensed marijuana producers to export to purchasers in any other state. Retailers would be able to purchase and accept competing intoxicating hemp products on an equal basis with regard to interstate commerce. Again, a key component of allowing an interstate market to function correctly is for states to align their packaging, labeling and testing protocols to the greatest extent possible.

[115] Lawrence and Minton, "The Case for Interstate Commerce".

PART 7

# CONCLUSION

Congress has legalized psychotropic cannabinoids through the hemp pathway by removing hemp-derived cannabinoids from the Controlled Substances Act while declining to act on broader legalization of marijuana. However, while federal agencies and courts have mostly reinforced congressional legalization of these products, very few regulatory guidelines have emerged to facilitate orderly commerce.

States have instead been left to figure out how hemp-derived cannabinoids should be regulated and how those products should be differentiated from competing marijuana products that are legal in some states. States have adopted vastly different approaches to regulating federally legal hemp products, and these disparate approaches have erected technical barriers to trade, caused confusion among producers and consumers, and yet often still fail to ensure an orderly market.

State legislatures face critical decisions on licensing, manufacturing standards, retail distribution, and enforcement mechanisms for the broad and growing range of products derived from the cannabis plant. Drawing parallels with existing cooperative federalism governing alcoholic beverage sales, while adapting to the unique characteristics of hemp-derived products, emerges as a prudent approach that ensures consumer safety, market integrity, and transparency for all parties.

We recommend either that federal agencies set clear standards for the production of hemp-cannabinoid products, or that states work collaboratively to harmonize standards for

production, testing, labeling, and inventory tracking to facilitate interstate commerce and consumer confidence.

A key advantage for the burgeoning hemp industry is the greater regulatory flexibility afforded by its exclusion from the list of federally controlled substances. In part because of these advantages, hemp-cannabinoid products are able to attract consumers who might otherwise prefer marijuana products. Recognizing this inherent competition, states should also revisit and streamline the regulatory and tax structure facing state-regulated marijuana markets to better align costs of production and retail accessibility with what exists within the hemp industry. By promoting regulatory parity between hemp and marijuana products and embracing interstate commerce, states can position themselves at the forefront of a burgeoning hemp-cannabinoid industry while fostering greater competition, innovation, and consumer choice within both the markets for hemp and marijuana.

*By promoting regulatory parity between hemp and marijuana products and embracing interstate commerce, states can position themselves at the forefront of a burgeoning hemp-cannabinoid industry while fostering greater competition, innovation, and consumer choice within both the markets for hemp and marijuana.*

A cohesive regulatory approach that aligns state interests with streamlined federal guidance is paramount to navigating the dynamic landscape of hemp-derived cannabinoid products, ensuring compliance, competitiveness, and consumer welfare in a rapidly evolving market.

# ABOUT THE AUTHORS

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**Geoffrey Lawrence** is research director at Reason Foundation. Lawrence has extensive experience within the state-licensed cannabis industry and has served as chief financial officer of multiple cultivation, manufacturing and distribution companies located mainly on the West Coast. He was CFO of the first fully reporting, publicly traded marijuana licensee to be listed on a U.S. exchange, CFO of a startup manufacturer and distributor that was subsequently sold to Lowell Farms (LOWL), CFO of a manufacturer and distributor based in Oakland that he helped take public, and, most recently, CFO of Claybourne Co., a top-3 flower brand in California by market share. Through these roles, Lawrence has raised capital, implemented systems for accounting and inventory control, designed internal control processes, managed monthly and quarterly closings and reporting, managed payroll, accounts payable and accounts receivable, managed compliance with state and local regulations, negotiated contracts, and prepared filings with the U.S. Securities and Exchange Commission.

Lawrence has also served as senior appointee to the Nevada Controller's Office where he oversaw the state's external financial reporting. Prior to joining Reason in 2018, Lawrence had also spent a decade as a policy analyst on labor, fiscal, and energy issues between North Carolina's John Locke Foundation and the Nevada Policy Research Institute. Lawrence is additionally founder and president of an accounting and advisory firm with expertise in the licensed marijuana and hemp industries. Lawrence holds an M.S. and B.S. in accounting, an M.A. in international economics and a B.A. in international relations. He lives in Las Vegas with his wife and two children and enjoys baseball and mixed martial arts.