

NEW BUSINESS: MARIJUANA

**What you need to know about THC, CBD,
Hemp and $\Delta 8$**

New Business: Marijuana

- Attitudes about weed have changed across the country
- Most states have some form of legalization
- Many jurisdictions not prosecuting small amounts
- The legalization of Hemp and CBD
- What's the deal with Delta 8?

New Business: Marijuana

- **Attitudes about weed have changed across the country**
- Most states have some form of legalization
- Many jurisdictions not prosecuting small amounts
- The legalization of Hemp and CBD
- What's the deal with Delta 8?

New Business: Marijuana

- Attitudes about weed have changed across the country



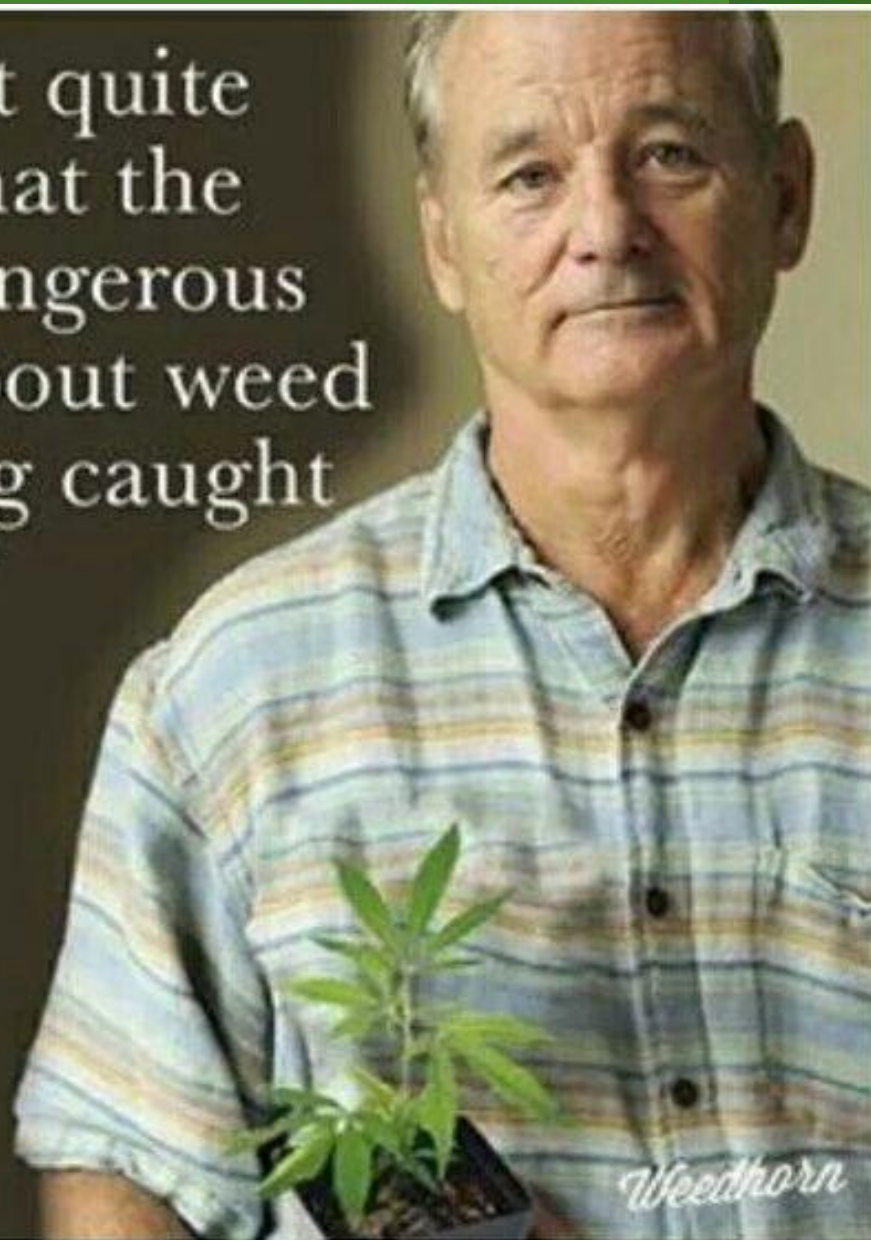
Attitudes about weed completely changed

**Attitudes
about weed
completely
changed**



“I find it quite
ironic that the
most dangerous
thing about weed
is getting caught
with it.”

-Bill Murray





Support for marijuana legalization hits new high, CBS News poll finds

BY JENNIFER DE PINTO

UPDATED ON: APRIL 19, 2019 / 10:25 AM / CBS NEWS



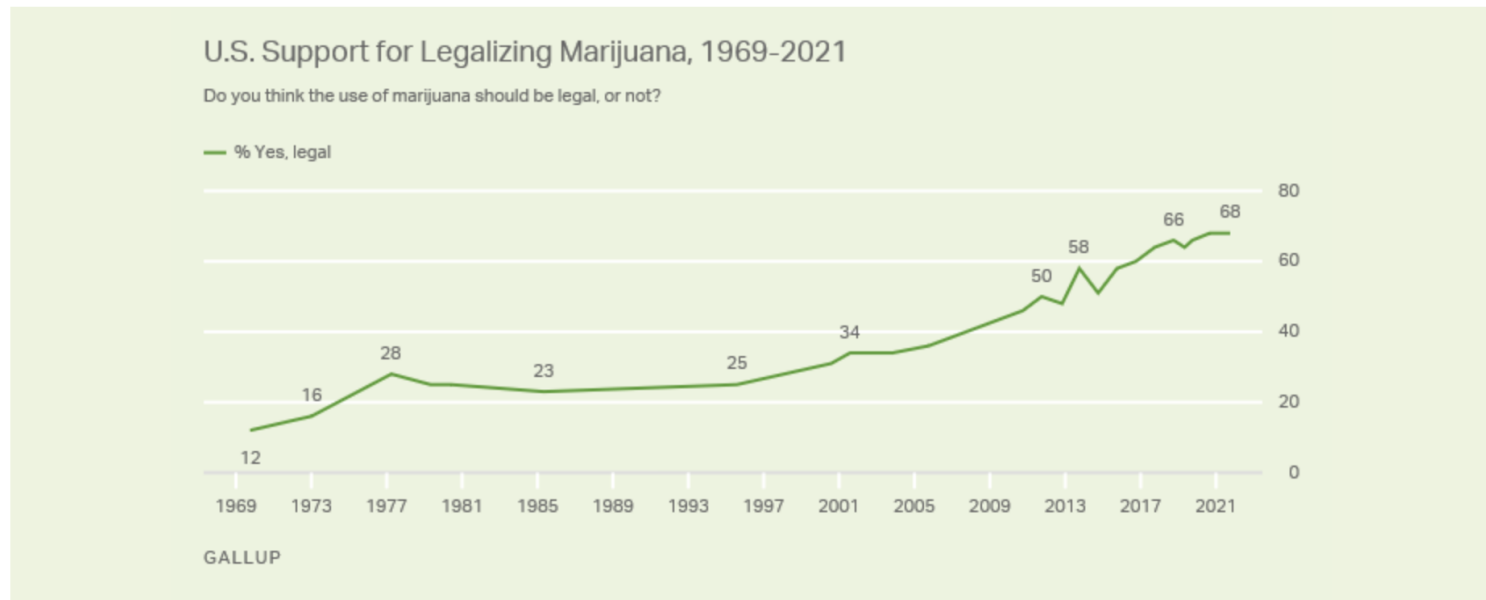


Nation and State polls favor legalization

- 91% Americans for legalization
- 8% Americans against legalization

Support for Legal Marijuana Holds at Record High of 68%

WASHINGTON, D.C. -- More than two in three Americans (68%) support legalizing marijuana, maintaining the record-high level reached last year.



Gallup has documented increasing support for legalizing marijuana over more than five decades, with particularly sharp increases occurring in the 2000s and 2010s. In 2013, a majority of Americans, for the first time, supported legalization.

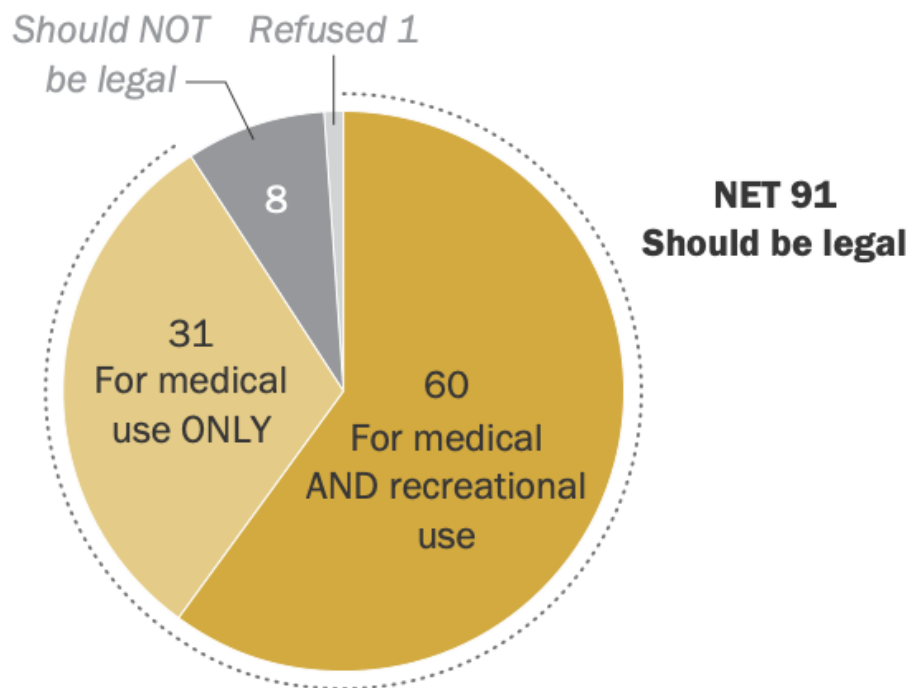
**91% of Americans
support Medical
or Recreational**



Pew Research Center

Fewer than 10% of U.S. adults say marijuana should not be legal at all

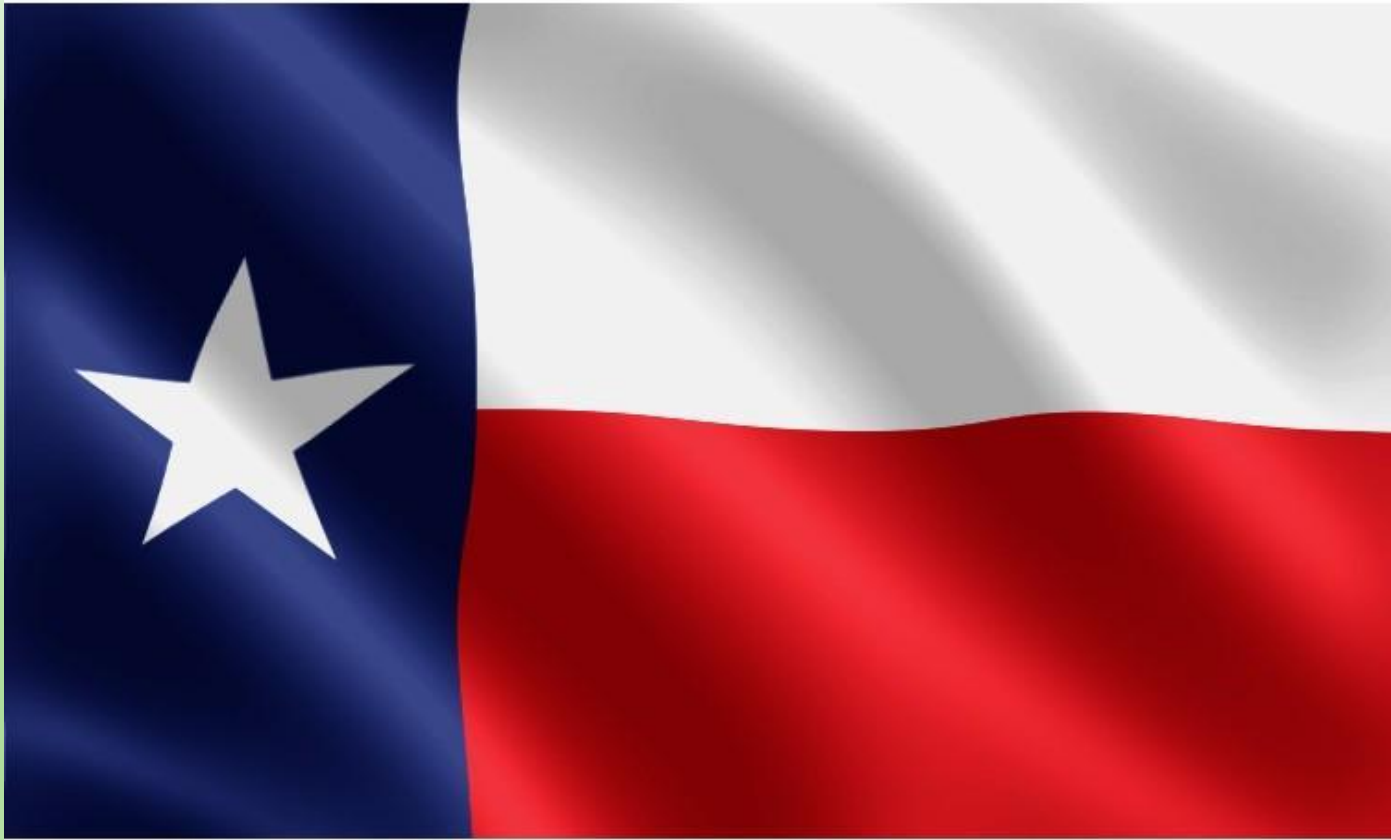
% who say marijuana...



Source: Survey of U.S. adults conducted April 5-11, 2021.

PEW RESEARCH CENTER

Where do Texans stand?





- **83%** Texans for some form of legalization
- **16%** Texans against legalization

**Stronger Support in
Texas**

Marijuana Legalization More Popular In Texas Than Governor, Biden And Other Officials, New Poll Finds

[Kyle Jaeger](#)

May 16, 2022

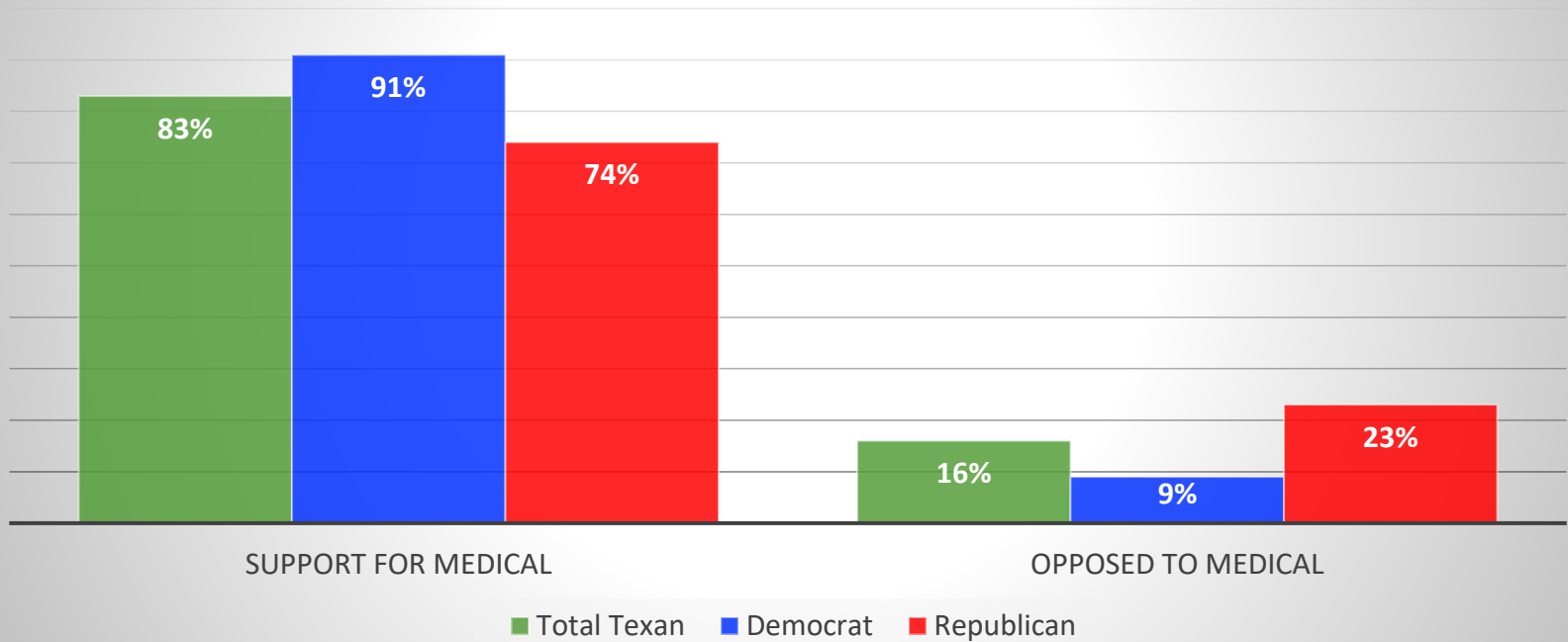
Marijuana legalization is more popular in Texas than the state's top elected officials and President Joe Biden, according to a new poll.

The survey from the University of Texas at Tyler found that an overwhelmingly, bipartisan majority of Texans (83 percent) support medical cannabis legalization, and 60 percent said they're in favor of recreational legalization as well.

Support for medical marijuana reform crossed political lines, with 91 percent of Democrats, 74 percent of Republicans and 85 percent of independents saying that patients should have legal access to cannabis.

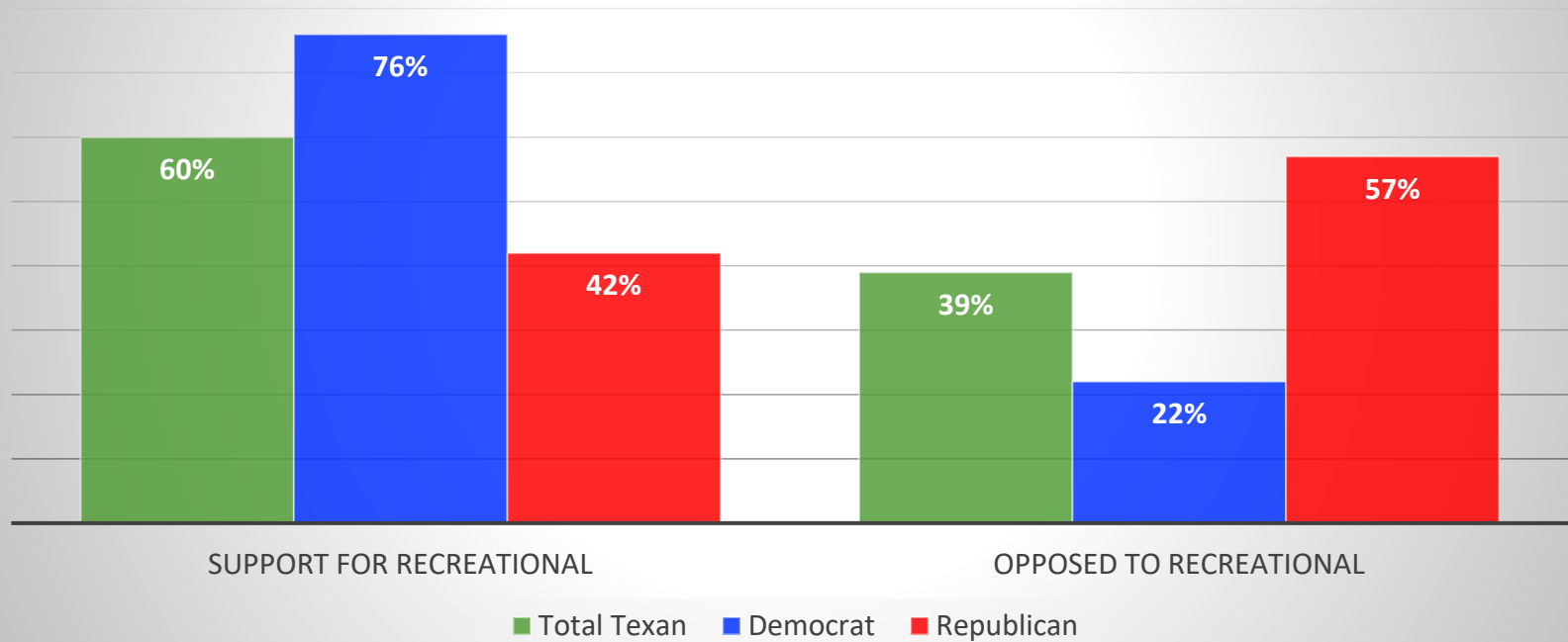
Medical Support

Survey of Texas Voters
May 2022



Recreational Support

Survey of Texas Voters
May 2022



New Business: Marijuana

- Attitudes about weed have changed across the country
- **Most states have some form of legalization**
- Many jurisdictions not prosecuting small amounts
- The legalization of Hemp and CBD
- What's the deal with Delta 8?

New Business: Marijuana

- 46 states have some form of legalization

**46 states
have some
form of
legalization**



92%

States with
Legalization

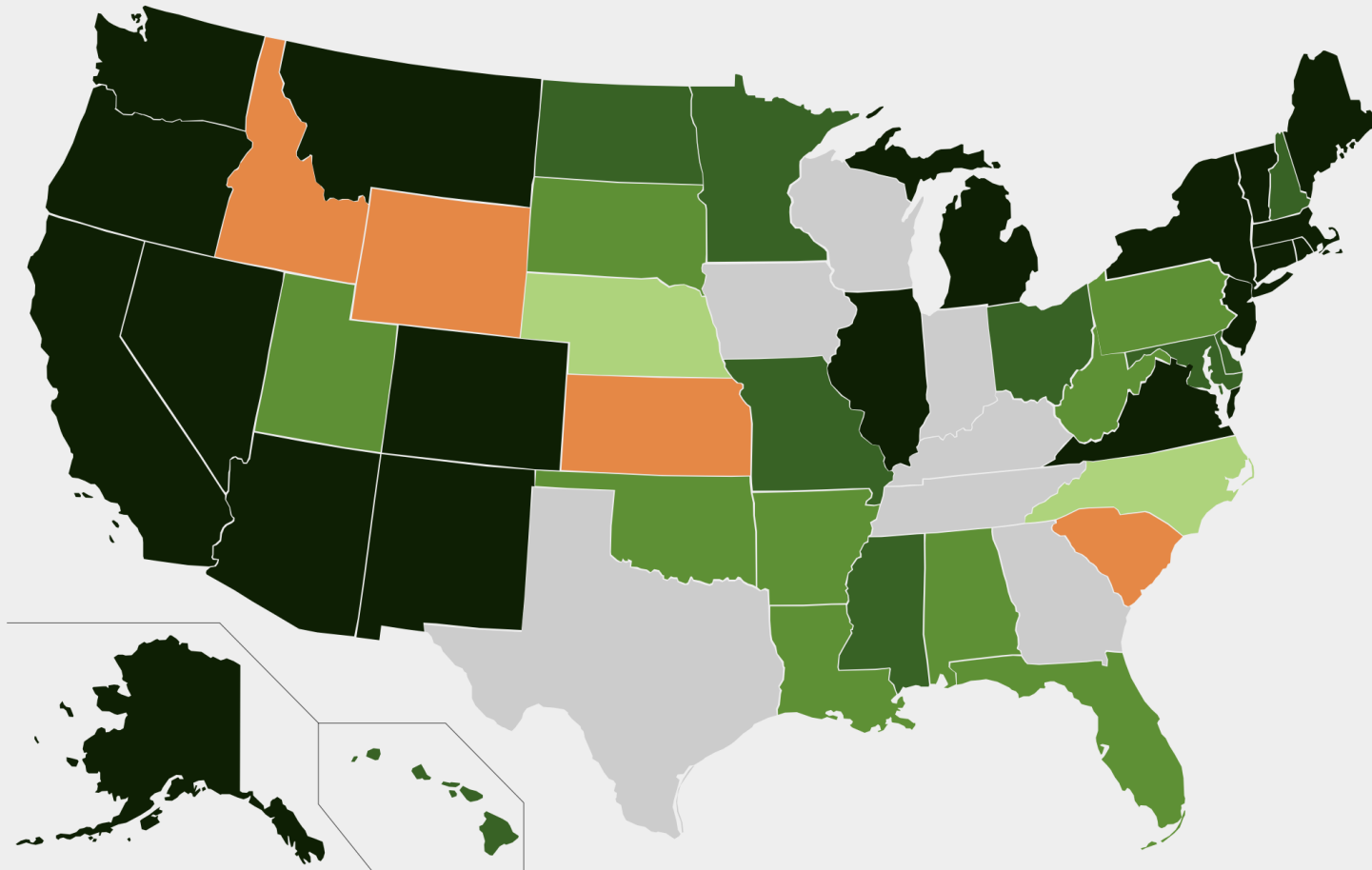
22
states
and DC
fully
LEGAL



Only 4
States
fully
ILLEGAL



● Legalized ● Medical and Decriminalized ● Medical ● Decriminalized ● CBD Only ● Fully illegal



New Business: Marijuana

- Attitudes about weed have changed across the country
- Most states have some form of legalization
- **Many jurisdictions not prosecuting small amounts**
- The legalization of Hemp and CBD
- What's the deal with Delta 8?

New Business: Marijuana

- Many jurisdictions not prosecuting small amounts



Federal Marijuana Arrests Continue To Drop Amid Legalization Movement, New Justice Department Report Shows

By

[Kyle Jaeger](#)

May 23, 2022

Federal marijuana arrests continue to plummet year over year as more states move to legalize cannabis, new data from the Justice Department shows.

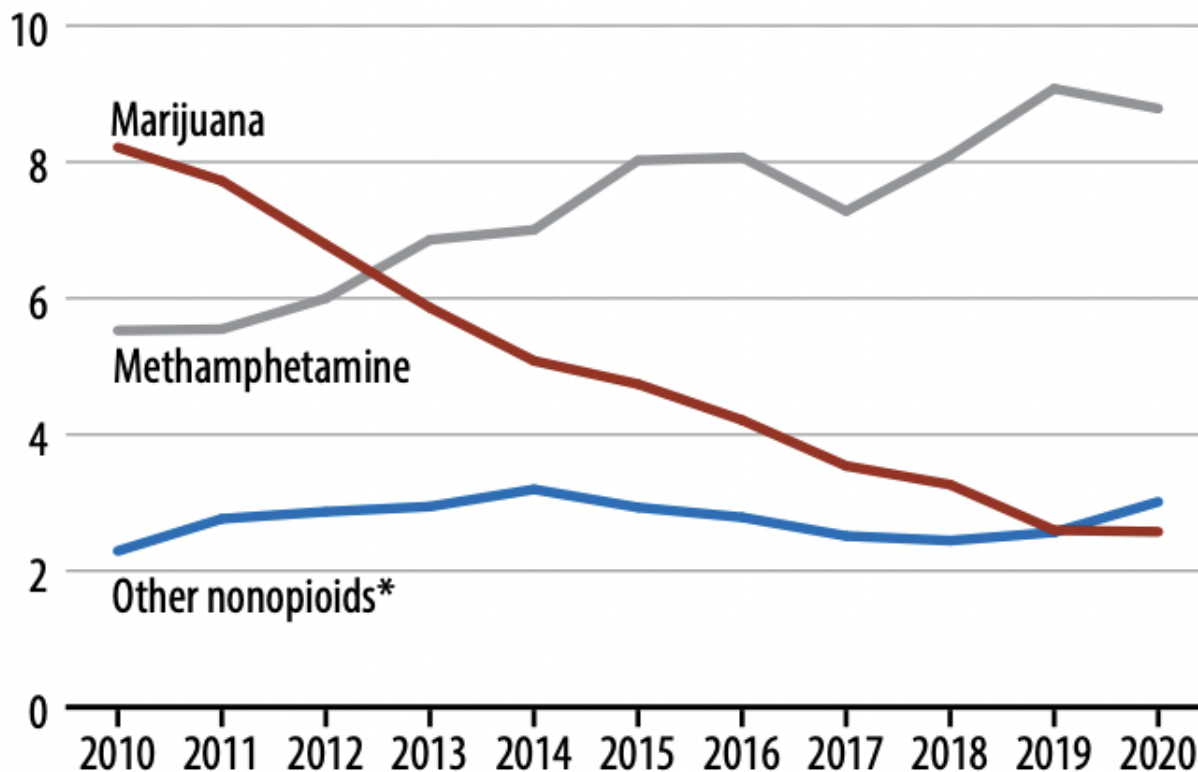
While there were still 2,576 Drug Enforcement Administration (DEA) marijuana arrests in fiscal year 2020, cannabis busts have dropped an average of 11 percent each year since 2010, when DEA made 8,215 such arrests.

There are likely several factors at play, including, most recently, the role of the coronavirus pandemic, which the Bureau of Justice Statistics said “drove an 81 percent decline in arrests and 77 percent decline in cases charged from March to April 2020.”

FIGURE 5

Federal and state arrests by the Drug Enforcement Administration involving marijuana, methamphetamine, and other nonopioids, FY 2010–2020

Number (in thousands)



DA expands drug reforms to include rejection of certain marijuana possession cases

Bexar County DA Joe Gonzales wants bigger focus on violent offenses



DAs In Four Texas Counties Say They'll No Longer Prosecute Misdemeanor Marijuana Cases

By JUAN A. LOZANO, THE ASSOCIATED PRESS • JUL 3, 2019



Share



Tweet



Email



New Business: Marijuana

- Attitudes about weed have changed across the country
- Most states have some form of legalization
- Many jurisdictions not prosecuting small amounts
- **The legalization of Hemp and CBD**
- What's the deal with Delta 8?

New Business: Marijuana

- The legalization of Hemp and CBD



FARM BILL 2018

- Goal to create **legal hemp market**
- Directed USDA to establish a national **regulatory framework** for **hemp production** in the United States.
- Passed November 2018

2018 FARM BILL EFFECT

Under the 2018 Farm Bill, hemp has been removed from the Controlled Substances Act (CSA) and is now considered an agricultural product.



HEMP-DERIVED
CBD IS LEGAL



HEMP FARMERS
CAN APPLY FOR
CROP INSURANCE



MORE BANKS WILL BE
WILLING TO WORK WITH
HEMP COMPANIES



"BIG AG" WILL BEGIN
MOVING INTO THE
HEMP INDUSTRY

HEMP-DERIVED CBD PRODUCT SALES



HEMP INDUSTRY GROWTH



\$2.5
BILLION
BY 2022

Hemp Industry worth \$4.4 Billion in 2021

Industrial Hemp Market To Hit Record Revenue of \$60,682.8 Million by 2030, says P&S Intelligence

PRESCIENT & STRATEGIC
INTELLIGENCE
Where knowledge inspires strategy

NEWS PROVIDED BY
P&S Intelligence →
May 04, 2022, 07:05 ET

SHARE THIS ARTICLE



NEW YORK, May 4, 2022 /PRNewswire/ -- The global **industrial hemp market** was found to be valued at \$4,452.0 million in 2021, which is projected to reach a huge \$60,682.8 million by 2030, increasing at a massive CAGR of 33.7% from 2021 to 2030. The growing need for hemp in several industries and the rising legalization of the cultivation of cannabis for industrial uses are some major drivers for the market. Hemp is now used in a variety of products, such as organic body care products, clothing, health foods, and biofuels.

In 2021, the conventional type had an industrial hemp market share of more than 55%. Because of its low price, traditionally cultivated hemp has a higher market presence. It also does not need a thorough examination or adherence to strict criteria in order to satisfy certified organic standards, which speeds up the manufacturing process. Aside from

Hemp Industry to reach \$115 Billion by 2030

Industrial Hemp Market Size Estimation 2022 | Industry Is Expected To Reach Valuation of USD 115.13 Billion Till 2030

NEWS PROVIDED BY
[ReportsandData](#)
May 06, 2022, 15:18 GMT



Rising demand for hemp-based plastic and for renewable raw materials are some key factors driving market revenue growth

NEW YORK CITY, NEW YORK, USA, May 6, 2022
[/EINPresswire.com/](#) -- The global [Industrial Hemp Market](#) size is expected to reach USD 115.13 Billion in 2030 and register a revenue CAGR of 33.8% over the forecast period, according to a latest report by Reports and Data. Rising



Reports And Data

Contact

Tushar Rajput
Reports and Data
+ 12127101370
[email us here](#)

More From This Source

[Brain Monitoring Market Will Reach](#)

STALK

FIBER



TEXTILES



INSULATION



ROPE

HURDS



PAPER



ORGANIC COMPOST



ANIMAL BEDDING



FIBER BOARD

SEEDS

OIL



COOKING/SEASONING OIL



DIETARY SUPPLEMENT



BODY CARE PRODUCTS



FUEL



PAINT

SEED CAKE



FLOUR



BEER



ANIMAL FEED

HEMP NUT



MILK/DAIRY



BAKERY



GRANOLA



PROTEIN POWDER

ROOTS

LEAVES/FLOWERS

U.S. Domestic Hemp Production Program



The screenshot shows the USDA website's 'Rules & Regulations' page for the U.S. Domestic Hemp Production Program. The header includes the USDA logo, the text 'United States Department of Agriculture Agricultural Marketing Service', and navigation links like 'About AMS', 'News & Announcements', 'Careers', 'For Employees', and 'Contact Us'. A search bar is also present. Below the header is a navigation menu with tabs for 'Market News', 'Rules & Regulations' (which is active), 'Grades & Standards', 'Services', 'Resources', and 'Commodity Procurement'. The breadcrumb trail shows 'Home > Rules & Regulations'. A 'Stay connected' section features social media icons for Facebook, Twitter, YouTube, Email, Flickr, RSS, and Instagram. The main content area has a left sidebar titled 'Hemp' with links to 'Overview', 'Information for State Departments of Agriculture and Tribal Governments', 'Information for Producers', 'Information for Hemp Testing Labs', 'Frequently Asked Questions', 'Rulemaking Documents', 'Contact Us', and 'Subscribe to Updates'. The main content area features a large image of hemp leaves with the word 'Hemp' overlaid, followed by the title 'U.S. Domestic Hemp Production Program'. The text below the title states: 'The 2018 Farm Bill (pdf) directed USDA to establish a national regulatory framework for hemp production in the United States. USDA established the U.S. Domestic Hemp Production Program through an interim final rule. This rule outlines provisions for the USDA to approve plans submitted by States and Indian Tribes for the domestic production of hemp. It also establishes a Federal plan for producers in States or territories of Indian tribes that do not have their own USDA approved plan.'

USDA United States Department of Agriculture Agricultural Marketing Service

About AMS | News & Announcements | Careers | For Employees | Contact Us

Search

Advanced Search | A-Z Glossary & Index

Market News Rules & Regulations Grades & Standards Services Resources Commodity Procurement

Home > Rules & Regulations

Stay connected: Facebook Twitter YouTube Email Flickr RSS Instagram

Hemp

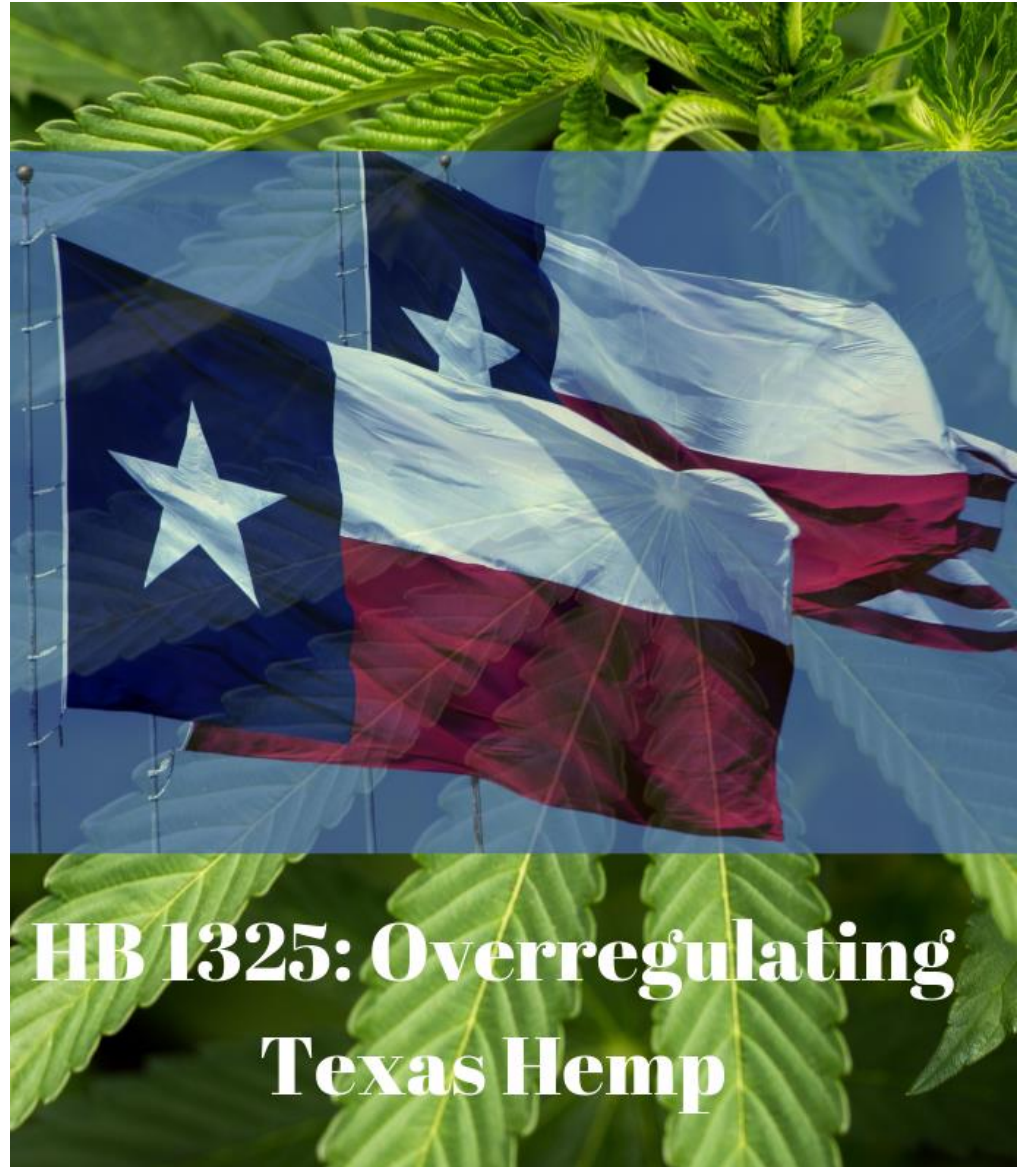
- Overview
- Information for State Departments of Agriculture and Tribal Governments
- Information for Producers
- Information for Hemp Testing Labs
- Frequently Asked Questions
- Rulemaking Documents
- Contact Us
- Subscribe to Updates

Hemp

U.S. Domestic Hemp Production Program

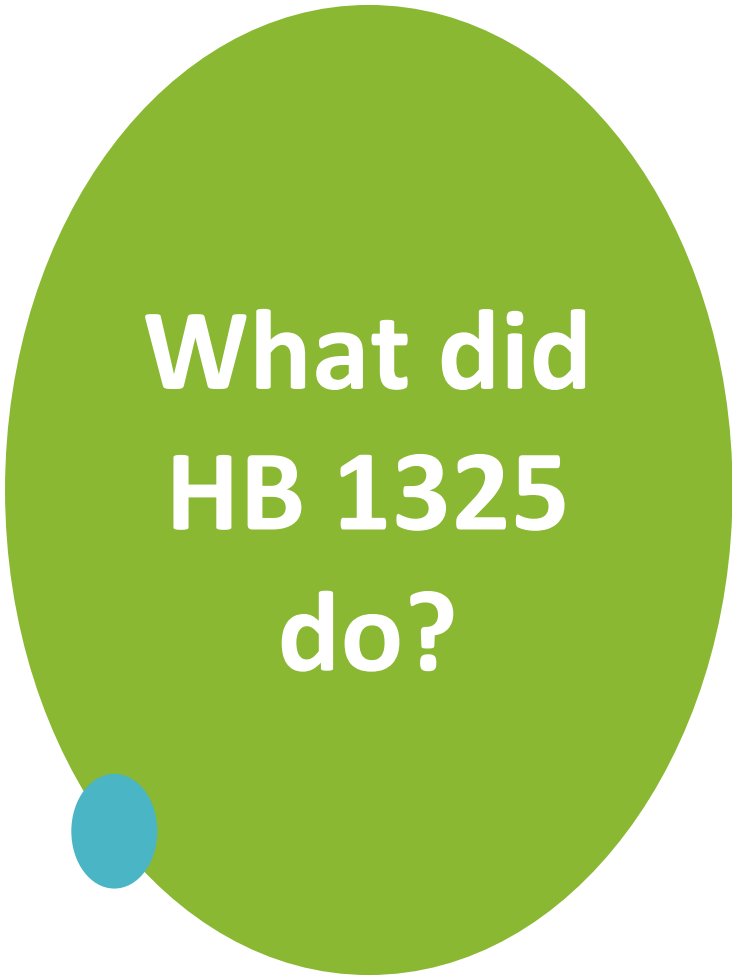
The 2018 Farm Bill (pdf) directed USDA to establish a national regulatory framework for hemp production in the United States. USDA established the U.S. Domestic Hemp Production Program through an interim final rule. This rule outlines provisions for the USDA to approve plans submitted by States and Indian Tribes for the domestic production of hemp. It also establishes a Federal plan for producers in States or territories of Indian tribes that do not have their own USDA approved plan.

Texas House Bill 1325




House Bill 1325 - “Hemp Bill”

- Immediately effective June 10, 2019
- Authorizes the production, manufacture, retail sale, and inspection of industrial hemp crops and products in Texas.
- Includes consumable hemp products which contain cannabidiol (CBD), as well as other edible parts of the hemp plant.



What did HB 1325 do?

- 
- Texas Department of Agriculture **shall develop a plan to monitor and regulate** the production of hemp in Texas

New Hemp Law

- **Texas Department of Agriculture**
- TDA Regulates **Industrial Production Hemp**
- Department of State Health Services
- DSHS Regulates Consumable CBD

New Hemp Law

- Texas Department of Agriculture
- TDA Regulates Industrial Production Hemp
- **Department of State Health Services**
- DSHS Regulates **Consumable CBD**

What is Hemp?

- “**Hemp**” means the plant **Cannabis sativa L.** and any part of that plant, including the seeds of the plant and all derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers, whether growing or not, **with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent** on a dry weight basis.

Hemp



**What is
Hemp?**

**Cannabis
with a THC concentration
of less than 0.3%**

What is Cannabis?

The Stash



Flower



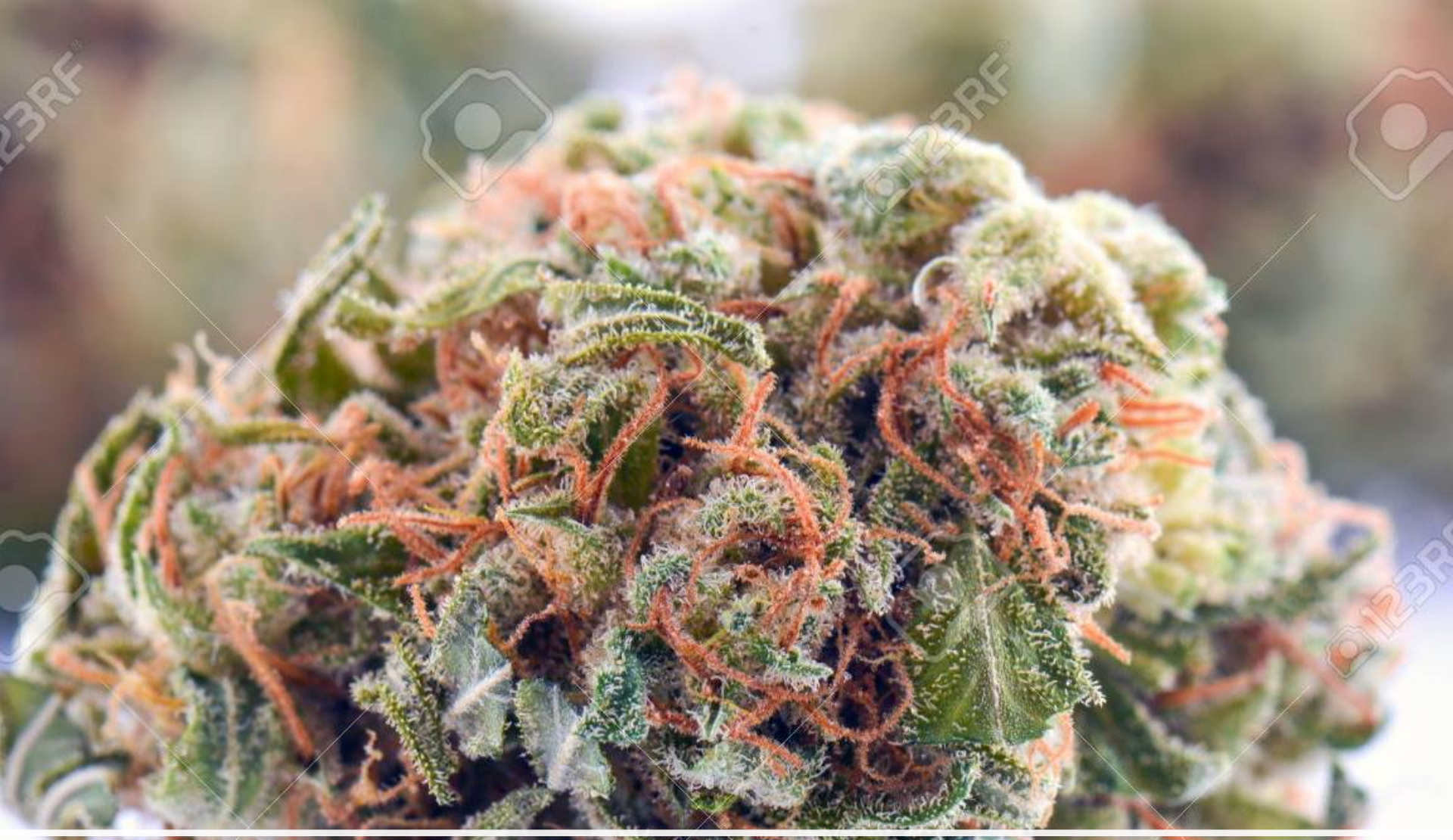
THC Concentrates



CBD



HEMP



Flower

THC

CANNABIS CONCENTRATES



CRUMBLE

Dried oil with a honey-comb like consistency



BADDER/BUDDER

Concentrates whipped under heat to create a cake-batter like texture



SHATTER

A translucent, brittle, & often golden to amber colored concentrate made with a solvent



DISTILLATE

Refined cannabinoid oil that is typically free of taste, smell & flavor. It is the base of most edibles and vape cartridges



CRYSTALLINE

Isolated cannabinoids in their pure crystal structure



DRY SIFT

Ground cannabis filtered with screens leaving behind complete trichome glands. The end-product is also referred to as kief



ROSIN

End product of cannabis flower being squeezed under heat and pressure



BUBBLE HASH

Uses water, ice, and mesh screens to pull out whole trichomes into a paste-like consistency

Cannabis Concentrate

- Kief or sift
- Hash
- Rosin
- Live Resin
- Shatter Wax
- Crumble Wax
- Honeycomb Wax
- Budder or Badder
- Pull and Snap
- Tinctures
- THC Oil
- BHO & CO2 Extract Oil
- Rick Simpson Oil
- Distillates, Isolates & Crystallines

Dab

- Shatter
- Wax
- Resin
- Types of hash oil.

Solvent Concentrates

- Shatter
- Crumble & honeycomb
- Budder & badder
- Wax products
- Live Resin
- CO2 oil
- THC oil
- Butane-Honey Oil (BHO)
- Rick Simpson Oil (RSO)



Kief



Hash

Resin





Wax



Shatter



Tinctures



THC Oil

CBD



Hemp



Old Flower Definition

- HSC 481.002, (Definitions)
- (26) "Marihuana" means the plant **Cannabis sativa L.**, whether growing or not, the seeds of that plant, and every compound, manufacture, salt, derivative, mixture, or preparation of that plant or its seeds.

Old Flower Definition

Marihuana = Cannabis sativa L.

New Flower Definition

- The term does **not include**:
- (F) **hemp**, as that term is defined by Section 121.001, Agriculture Code.

Hemp Definition

"hemp" means Cannabis with a THC concentration of less than 0.3%

Old Controlled Substance/THC Definition

- HSC 481.002, (Definitions)
- (5) "**Controlled substance**" means a substance, including a drug, an adulterant, and a dilutant, listed in Schedules I through V or **Penalty Group** 1, 1-A, **2**, 2-A, 3, or 4. The term includes the aggregate weight of any mixture, solution, or other substance containing a controlled substance.

Old PG2/THC Definition

- HSC 481.103 (Penalty Group 2)
- **Tetrahydrocannabinols, other than marijuana**, and synthetic equivalents of the substances contained in the plant, or in the resinous extractives of Cannabis, or synthetic substances, derivatives, and their isomers with similar chemical structure and pharmacological activity

Old PG2/THC Definition

- HSC 481.103 (Penalty Group 2)
- **Tetrahydrocannabinols, other than marihuana**, and **synthetic equivalents** of the substances contained in the plant, or in the resinous extractives of Cannabis, or synthetic substances, derivatives, and their isomers with similar chemical structure and pharmacological activity

Old PG2/THC Definition

- HSC 481.103 (Penalty Group 2)
- **Tetrahydrocannabinols, other than marihuana**, and **synthetic equivalents** of the substances contained in the plant, or in the resinous extractives of Cannabis, or synthetic substances, derivatives, and their **isomers** with similar chemical structure and pharmacological activity

Old PG2/THC Definition

- HSC 481.103 (Penalty Group 2)
- **Tetrahydrocannabinols, other than marihuana**, and **synthetic equivalents** of the substances contained in the plant, or in the resinous extractives of Cannabis, or synthetic substances, derivatives, and their **isomers** with **similar chemical structure** and **pharmacological activity**

New THC Definition

- The **term does not include hemp**, as defined by Section 121.001, Agriculture Code, or **the tetrahydrocannabinols in hemp**.
- **Bc there is ALWAYS some THC in hemp**

Cannabidiol (CBD) Definition

- HSC 443.201
- (1) "**Consumable hemp product**" means food, a drug, a device, or a cosmetic, as those terms are defined by Section 431.002, that **contains hemp** or one or more **hemp-derived cannabinoids, including cannabidiol.**

The Stash



Flower



THC Concentrates



CBD



HEMP

What does this mean?

In some ways...

Cannabis cases can be MORE serious now.

NOW most cases will be felonies

THC or large MJ amounts

THC is more popular than ever!!!

What does that mean?



Changes Probable Cause



Changes what is required to be proven by the state



Changes what bounds of what science can validate



Changes what you can set up in Voir dire



Changes Jury Instructions



Changes your negotiations strength

We always had the Jury



It was always a type of
Nullification



But now we have real
weapons!

No more PC for flower

- Warrantless Vehicle stops
- Search Warrants



**“Distinct odor of MJ
emanating from the
vehicle”**

- MJ and Hemp smell the same

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
CORPUS CHRISTI DIVISION**

UNITED STATES OF AMERICA

vs.

JORGE DAMIAN SOLIZ, JR.

§
§
§
§
§

NO. 2:20-cr-01105-1

DEFENDANT’S MOTION TO SUPPRESS AND REQUEST FOR HEARING

**TO THE HONORABLE NELVA GONZALES RAMOS, UNITED STATES DISTRICT
JUDGE FOR THE SOUTHERN DISTRICT OF TEXAS, CORPUS CHRISTI DIVISION:**

COMES NOW JORGE DAMIAN SOLIZ, JR., by and through his undersigned Counsel, Donald H. Flanary, III., and Amanda I. Hernandez, and, pursuant to Federal Rule of Criminal Procedure 12(b)(3)(C) and the Fourth, Fifth, Sixth, and Fourteenth Amendments to the United States Constitution, respectfully moves this Honorable Court to hold a hearing on this Motion prior to trial and thereafter issue an order suppressing and excluding any and all evidence and statements, physical and testimonial, seized or obtained or derived from or through or as a result of illegal acts on behalf of the Government in this criminal prosecution which violated the Defendant’s rights as guaranteed to him under the United States Constitutions and under federal statutes. In support thereof, Defendant would respectfully show as follows:

I. INTRODUCTION

Defendant in this case stands charged by Indictment with one count of Conspiracy to Possess with Intent to Distribute 50 grams or more of Methamphetamine in violation of Title 21 U.S.C. §§ 846, 841(a)(1) and 841(b)(1)(A); and one count of Possession with Intent to Distribute 50 grams or more of Methamphetamine and Aiding and Abetting in violation of Title 21 U.S.C. § 841(a)(1), 841(b)(1)(A) & 18 U.S.C. § 2.

While there are many uses for hemp, smokable hemp has become very widespread. In 2020, the national smokable hemp market grew to between \$70 million and \$80 million.⁵

2. “Hemp” and “Marijuana” are indistinguishable to the naked eye and nose, look and smell the same, and law enforcement therefore cannot differentiate between the two without sending the substance to a lab for scientific testing.

Law enforcement, nor any person, can distinguish marijuana from hemp without scientific testing. As noted above, the plant species *Cannabis sativa* L. includes both hemp and marijuana. As such, both contain some amount of the chemicals THC and CBD. The difference between hemp, which can be legally possessed and purchased, and marijuana, which remains a controlled substance under federal law and prohibited under Texas law, is the differing amounts of CBD and THC in the plant. While marijuana typically has typically lower amounts of CBD and higher amounts of the THC, hemp has low amounts of THC and typically higher amounts of CBD⁶.

Because “marijuana” and “hemp” flowers are from the same *Cannabis Sativa* family, it logically follows that they look and smell the same⁷. The differentiation between marijuana and hemp, as well as the different forms of CBD, though potentially similar in either appearance or smell based on their state, is most often dependent on the level of THC within the substances.

⁵ *Exclusive: Smokable hemp market worth up to \$80 million for 2020, with fivefold growth predicted*. Hemp Industry Daily. (Sept. 2, 2020). Available at: <https://hempindustrydaily.com/exclusive-smokable-hemp-market-worth-up-to-80-million-for-2020-with-five-fold-growth-predicted/> (“For 2020, market researchers at Nielsen project sales in the current smokable-hemp market to reach \$70 million to \$80 million. That includes categories such as loose CBD flower, hemp-CBD pre-rolls, cigars and other inhalables.”)

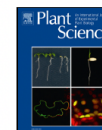
⁶ Small, Ernest et al. *Hemp: A New Crop with New Uses for North America*. Trends in New Crops and New Uses. p. 284–326. (J. Janick and A. Whipkey eds., 2002) (noting the common inverse relationship between amounts of THC and CBD in cannabis). Available at: <https://www.hort.purdue.edu/newcrop/ncnu02/v5-284.html>.

⁷ It is well established that hemp and marijuana are “varieties of the same species, *Cannabis sativa* L.” See *Evaluating the Impact of Hemp Food Consumption on Workplace Drug Tests*, attached as Exhibit 2 at 692 (The primary difference is that marijuana has a higher concentration of the psychoactive compound cannabinoid delta 9 tetrahydrocannabinol, more commonly known as THC); see also *United States v. Bignon*, 18-CR-783 (JMF), 2019 WL 643177, at *2 (S.D.N.Y. Feb. 15, 2019), aff’d, 813 Fed. Appx. 34 (2d Cir. 2020) “Thus, it is fair to infer, and on that basis the Court finds, that the odor of burning marijuana and the odor of burning hemp are similar — or, more to the point, that one could reasonably mistake one odor for the other” (footnote omitted).

While there are many uses for hemp, smokable hemp has become very widespread. In 2020, the national smokable hemp market grew to between \$70 million and \$80 million.⁵

2. “Hemp” and “Marijuana” are indistinguishable to the naked eye and nose, look and smell the same, and law enforcement therefore cannot differentiate between the two without sending the substance to a lab for scientific testing.

Law enforcement, nor any person, can distinguish marijuana from hemp without scientific testing. As noted above, the plant species *Cannabis sativa* L. includes both hemp and marijuana. As such, both contain some amount of the chemicals THC and CBD. The difference between



Review article

Terpenes in *Cannabis sativa* – From plant genome to humans

Judith K. Booth, Jörg Bohlmann*

Michael Smith Laboratories, University of British Columbia, 2185 East Mall, Vancouver, B.C., V6T 1Z4, Canada

ARTICLE INFO

Keywords:
Cannabis
Strains
Specialized secondary metabolism
Standardization
Entourage effect
Terpenes
Cannabinoids
Terpene synthase

ABSTRACT

Cannabis sativa (cannabis) produces a resin that is valued for its psychoactive and medicinal properties. Despite being the foundation of a multi-billion dollar global industry, scientific knowledge and research on cannabis is lagging behind compared to other high-value crops. This is largely due to legal restrictions that have prevented many researchers from studying cannabis, its products, and their effects in humans. Cannabis resin contains hundreds of different terpene and cannabinoid metabolites. Many of these metabolites have not been conclusively identified. Our understanding of the genomic and biosynthetic systems of these metabolites in cannabis, and the factors that affect their variability, is rudimentary. As a consequence, there is concern about lack of consistency with regard to the terpene and cannabinoid composition of different cannabis 'strains'. Likewise, claims of some of the medicinal properties attributed to cannabis metabolites would benefit from thorough scientific validation.

1. Introduction

Cannabis sativa (cannabis) is thought to have originated from central Asia, and has been domesticated for over 5000 years [1]. Cannabis varieties that are low in psychoactive cannabinoids are used for the production of fiber and oilseed. However, the most valuable cannabis product today is the terpene- and cannabinoid-rich resin with its various psychoactive and medicinal properties. The resin is produced and accumulates in glandular trichomes that densely cover the surfaces of female (pistillate) inflorescences and, to a lesser degree, the foliage of male and female plants (Fig. 1). In total, more than 150 different terpenes and approximately 100 different cannabinoids [2] (Fig. 2) have been identified in the resin of different cannabis types (Table 1). The predominant cannabinoids in cannabis grown for medicinal or recreational use are Δ^9 -tetrahydrocannabinolic acid (THCA) and cannabidiolic acid (CBDA). While cannabinoids are the primary psychoactive and medicinal components of cannabis resin, volatile terpenes (monoterpenes and sesquiterpenes) contribute many of the different fragrance attributes that influence consumer preferences.

Different cannabis types and their derived consumer products are commonly referred to with 'strain' names. These names often relate to fragrance attributes conferred, at least in part, by terpenes [3]. Different 'strains' may be distinguished by morphological features or differences in the chemical composition of the resin. However, due to a history of largely illicit cannabis production, cannabis 'strains' are often poorly defined genetically. 'Strains' may lack reproducibility with

regard to profiles of terpenes and cannabinoids [4,5]. The species encompasses large genetic diversity, with most strains having high levels of heterozygosity and genetic admixture [5,6]. Cannabis is wind-pollinated, which also contributes to variability of cannabis metabolites. As a result, many cannabis 'strains' lack the level of standardization that producers and consumers are accustomed to with other crop plants, such as genetically and phenotypically well-defined grapevine varieties. In the absence of proper genetic or genomic characterization, some attempts have been made at chemotaxonomic classification of cannabis 'strains' based on terpenes, and cannabis plants have also been described as belonging to different chemotypes (Table 1). However, the complexity of terpene biosynthetic systems, and the many different sources of terpene variation, renders these efforts often futile; in general, concepts of chemotaxonomy have been outdated by genome sciences, and chemotypes cannot reliably substitute for properly genotyped plants.

With the lifting of some of the legal restrictions on cannabis research in Canada, and in some other jurisdictions, there is now an opportunity to build stronger scientific knowledge of the genomic, molecular and biochemical properties that define terpene and cannabinoid profiles in different cannabis 'strains'. This in turn can support the development of a larger number of well-defined cannabis varieties. Another aspect that requires new research are the various effects that are attributed to cannabis terpenes in humans. While some of the effects of the cannabinoids have been scientifically explained, there is a great deal of uncertainty about the effects of cannabis terpenes in humans

* Corresponding author.

E-mail address: bohlmann@msl.ubc.ca (J. Bohlmann).<https://doi.org/10.1016/j.plantsci.2019.03.022>

Received 26 January 2019; Received in revised form 27 March 2019; Accepted 27 March 2019

Available online 04 April 2019

0168-9452/ © 2019 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>).



Contents lists available at ScienceDirect

Plant Science

journal homepage: www.elsevier.com/locate/plantsci



Review article

Terpenes in *Cannabis sativa* – From plant genome to humans

Judith K. Booth, Jörg Bohlmann*

Michael Smith Laboratories, University of British Columbia, 2185 East Mall, Vancouver, B.C., V6T 1Z4, Canada



ARTICLE INFO

Keywords:

Cannabis
Strains
Specialized secondary metabolism
Standardization
Entourage effect

ABSTRACT

Cannabis sativa (cannabis) produces a resin that is valued for its psychoactive and medicinal properties. Despite being the foundation of a multi-billion dollar global industry, scientific knowledge and research on cannabis is lagging behind compared to other high-value crops. This is largely due to legal restrictions that have prevented many researchers from studying cannabis, its products, and their effects in humans. Cannabis resin contains hundreds of different terpene and cannabinoid metabolites. Many of these metabolites have not been con-



INTEROFFICE MEMORANDUM

TO: Law Enforcement Agencies within the
Eleventh Judicial Circuit of Florida

DATE: August 5, 2019

FROM: KATHERINE FERNANDEZ RUNDLE
State Attorney
Eleventh Judicial Circuit

RE: Marijuana Cases in the Wake of
the "HEMP" Bill
(Senate Bill 1020)

On June 25, 2019, Governor DeSantis signed into law Senate Bill 1020, also known as the "Hemp" Bill. This law, which has significant impact upon law enforcement, took effect on July 1, 2019. The bill creates a state hemp program, which legalizes the possession and use of hemp. Hemp is defined in the bill as "the plant *Cannabis sativa L.* and any part of that plant, including the seeds thereof, and all derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers thereof, whether growing or not, that has a total delta-9 tetrahydrocannabinol concentration that does not exceed 0.3 percent on a dry-weight basis." See Florida Statute §581.217(3)(d).

The Bill also changes the definition of "Cannabis" in Florida Statute §893.02 such that the term "Cannabis" does not include hemp as defined in s. 581.217.

Hemp and cannabis both come from the same plant, *Cannabis sativa L.* The only difference between hemp and cannabis is that hemp has a total delta-9 tetrahydrocannabinol (THC) concentration that does not exceed 0.3 percent. If the THC concentration of the plant does not exceed .3 percent, then the plant is hemp, and is **legal** in Florida. If the THC concentration of the plant does exceed .3 percent, then the plant is cannabis, and is **illegal** in Florida.

This significant change in the law will impact police and prosecutors in Florida, just as it has impacted police and prosecutors in other jurisdictions that have had similar legislation enacted. The greatest impact will be upon probable cause determinations by police and sheriff's offices, and upon State Attorney's Offices' ability to prove beyond a reasonable doubt that a substance is cannabis, an illegal controlled substance under Florida Statute 893.02, and not hemp.

Because hemp and cannabis both come from the same plant, they look, smell, and feel the same. There is no way to visually or microscopically distinguish one from the other. Similarly, since hemp can be – and is – also smoked, there is no olfactory way to distinguish hemp from marijuana. In either their raw vegetative state, or while burning, both hemp and cannabis smell the same. Accordingly, the only way to distinguish legal hemp from illegal cannabis is through quantitative testing.

A. Probable Cause Determinations

Since there is no visual or olfactory way to distinguish hemp from cannabis, the mere visual observation of suspected cannabis – or its odor alone – will no longer be sufficient to establish probable cause to believe that the substance is cannabis.

Some agencies have established what they have referred to as an “odor plus” standard for establishing probable cause. Some of the factors that may lend themselves to helping to establish probable cause include – but are not limited to – the following:

1. Information or intelligence regarding illicit activity prior to the stop
2. Knowledge of the subject’s prior recent criminal history for narcotics violations
3. Observation of a hand-to-hand transaction prior to the stop
4. Admission that the substance is – in fact – illegal cannabis
5. Conflicting or nonsensical statements
6. Nervousness, such as:
 - a. Sweating when it is not hot
 - b. Shaking or trembling hands
 - c. Avoiding eye contact
7. Furtive movements
8. Discarding, destroying, or trying to hide a substance
9. A large amount of currency
10. Currency in rubber-banded “quick count bundles”
11. Masking agents such as fabric softener, air fresheners, or coffee grinds
12. Firearms or other weapons
13. Drug paraphernalia, such as baggies, pipes, heat sealers, or scales (although legal hemp may be stored in a baggie and smoked in a pipe as well)
14. Signs of impairment on a driver (such as bloodshot, watery eyes or slurred speech)

This is a non-exhaustive list of some additional factors that may, in various combinations, lend themselves to establishing probable cause. Law enforcement officers should consider each of these factors, as well as look for other evidence of illegality, before taking any action that requires probable cause. We recommend that you consult your police legal advisor for guidance on particular factual scenarios that your officers may encounter in the field. Probable cause has always been assessed under the totality of the circumstances.

B. Prosecutions of Cannabis Offenses Since the Hemp Bill Came into Effect

In any criminal trial involving a cannabis offense, the state is required to prove beyond a reasonable doubt that the suspected substance is, in fact, illegal cannabis, and not hemp. As stated previously, since cannabis and hemp are visually and microscopically identical – and smell exactly the same – in

A. Probable Cause Determinations

Since there is no visual or olfactory way to distinguish hemp from cannabis, the mere visual observation of suspected cannabis – or its odor alone – will no longer be sufficient to establish probable cause to believe that the substance is cannabis.

Some agencies have established what they have referred to as an “odor plus” standard for establishing probable cause. Some of the factors that may lend themselves to helping to establish probable cause include – but are not limited to – the following:



ROY COOPER
GOVERNOR

NORTH CAROLINA STATE BUREAU OF INVESTIGATION

3320 Garner Road
P.O. BOX 29500
Raleigh, NC 27626-0500
(919) 662-4500
FAX: (919) 662-4523



ROBERT SCHURMEIER
DIRECTOR

Industrial Hemp/CBD Issues

Background

Session Law 2015-299 established the North Carolina Industrial Hemp Commission and initiated a pilot program to study the feasibility of industrial hemp as a crop in NC. Industrial hemp is the plant species *Cannabis Sativa*, which is the same species as marijuana. Industrial hemp contains low levels of tetrahydrocannabinol (THC), which is the psychoactive ingredient in marijuana, a Schedule VI controlled substance in NC. Industrial hemp is engineered to contain high levels of cannabidiol (CBD), which is not psychoactive and has many alleged health benefits including treatment for some forms of epilepsy. It should be noted that the FDA recently approved a pharmaceutical CBD drug called Epidiolex, which can be prescribed by a physician for epilepsy. This is the only FDA approved use of CBD for a medical condition.

There are several types of industrial hemp:

1. One variety is grown for seed oils. Oil is extracted from the seeds and used in various food products such as bread, shampoos, and granola products;
2. One variety looks like long stalks of bamboo and is grown for fiber for textiles and rope; and
3. One variety looks like marijuana and grows "buds" just like marijuana. CBD is extracted from the buds. This type looks just like marijuana, including the leaves and buds, and it smells the same as marijuana. In fact, there is no way for an individual to tell the difference by looking at the plant; one would need a chemical analysis to tell the difference.

The NC Department of Agriculture (NC DAG) oversees the growers of industrial hemp in NC by providing licenses to growers who qualify. NC DAG performs inspections of fields and indoor grown space and takes plant samples which are tested to determine the percentage of THC. If the percentage of THC is determined to be greater than 0.3%, NC DAG burns the plants. NC DAG's lab has the capability to determine the percentage of THC; however, they outsource the testing to a private lab in Durham due to the high number of samples that are submitted.

Due to the popularity of CBD, the overwhelming majority of NC licensees are growing the CBD producing variety of hemp, rather than the variety for clothing and rope. As of July 2018, there were 348 licensed growers on 4548 licensed acres and in 1,630,485 square feet of indoor greenhouse space. As of January 2019, there were well over 500 licensed growers in NC. There are a number of large processing facilities that have recently opened in NC. Hemp grown in NC, as well as many other states, are processed into various CBD containing products in these facilities. These products include balms, lotions, salve, oils, capsules, cigarettes, cigars, and "buds." There are CBD dispensaries that have opened in NC in order to sell these products; in addition, the products are sold in hundreds of tobacco shops, convenience stores, and pharmacies. CBD liquids are sold for vaping. Food products labeled to contain CBD are sold in stores across NC in the form of gummies, trail mix, lollipops, and many other food products. These products are expensive; with a small 4-ounce bottle of CBD oil sold for \$80.00 or a small bag of CBD trail mix for \$40.00. These products are being sold in large quantities, with little oversight by a regulatory body. Recently the FDA banned CBD from food products, dietary supplements, and products claiming medicinal benefits. Currently, the NC DAG is sending letters to notify store owners that they cannot sell food products containing CBD.

Issues for Law Enforcement

There is no easy way for law enforcement to distinguish between industrial hemp and marijuana. There is currently no field test which distinguishes the difference.

Hemp and marijuana look the same and have the same odor, both unburned and burned. This makes it impossible for law enforcement to use the appearance of marijuana or the odor of marijuana to develop probable cause for arrest, seizure of the item, or probable cause for a search warrant. In order for a law enforcement officer to seize an item to have it analyzed, the officer must have probable cause that the item being seized is evidence of a crime. The proposed legislation makes possession of hemp in any form legal. Therefore, in the future when a law enforcement officer encounters plant material that looks and smells like marijuana, he/she will no longer have probable cause to seize and analyze the item because the probable cause to believe it is evidence of a crime will no longer exist since the item could be legal hemp. Police narcotics K9's cannot tell the difference between hemp and marijuana because the K9's are trained to detect THC which is present in both plants. Law enforcement officers cannot distinguish between paraphernalia used to smoke marijuana and paraphernalia used to smoke hemp for the same reasons. The inability for law enforcement to distinguish the difference between hemp and marijuana is problematic in all marijuana prosecutions, from small amounts to trafficking amounts of plant material. There is at least one District Attorney's Office in NC which is currently not prosecuting marijuana cases due to the inability of law enforcement to distinguish the difference between hemp and marijuana.

While NC DAG oversees the hemp growers in NC to ensure that the THC levels are within legal limits, there is currently no regulation of hemp and CBD products. This is particularly concerning because processors in NC are making hemp and CBD products using hemp grown all over the US. We do not verify that hemp grown in another state contains less than the percentage THC required by law, which means that products made in NC may contain a higher percentage of THC than what is allowed by law. Retail products currently sold in NC include hemp "buds" or plant material, hand rolled hemp cigarettes and hemp cigars, CBD/Hemp oils, and edible candies, gummies, and food products. Law enforcement has encountered employees in some businesses who encourage the purchase of hemp products as a legal marijuana alternative. Consumers can currently purchase hemp buds and rolling papers in the same store and then roll a hemp "joint" and smoke it. (Note: On the last page of this document is a series of photographs of "hemp" products sold in stores in NC).

The North Carolina State Crime Laboratory does not conduct testing to differentiate between hemp and marijuana. The State Crime Lab, as well as most municipal crime labs in NC, perform a qualitative analysis on plant material to determine whether THC is present. All hemp and CBD products contain some level of THC; therefore, the crime labs will report these products as containing marijuana or THC, which are both Schedule VI controlled substances. While it has been suggested that additional funds be allocated to the Crime Lab in order to add additional chemists and equipment to conduct the quantitative analysis described above, this will not resolve the issue. As previously mentioned, law enforcement cannot seize an item without probable cause that the item is evidence of a crime. Not being able to distinguish between hemp and marijuana defeats the previous basis for probable cause to seize items believed to be marijuana.

Many products for sale in commercial businesses are intentionally mislabeled to contain CBD, but they contain harmful Schedule I controlled substances, synthetic cannabinoids, "bath salts," and other adulterants such as rat poison. Law enforcement cannot rely on the product labels to accurately identify the ingredients or percentages. For example, if a package of hemp "buds" has a label that states it contains less than 0.3% THC, law enforcement cannot rely on the label to be accurate. The product could contain marijuana or another controlled substance. But law enforcement does not currently have the legal right to seize the product and the crime labs do not have the ability to confirm the percentages. The crime labs can only identify THC or other controlled substances.

According to the FDA, CBD cannot be contained in food products such as gummies, lollipops, etc. This is particularly concerning for several reasons: first, children could purchase these products as there is no purchasing age limit;

Currently, there is no way to distinguish between hemp and cannabis based on plain view or odor alone. Accordingly, officers can no longer search a vehicle based solely on the odor of cannabis. Now you must articulate additional factors that lead you to believe that the substance is illegal cannabis, based on the totality of circumstances. You need “odor plus.”¹⁰

3. Even Police Canines trained in drug detection cannot distinguish between hemp and marijuana.

Canines are trained to detect the presence of marijuana by smelling terpenes in the substance, but both hemp and marijuana contain the same terpenes and a drug detection canine unit will alert to either substance, incapable of distinguishing between the two¹¹. In canines, the ability to smell is controlled by the primary olfaction system in the brain.¹² Canines have a highly

marijuana, nor can its officers or its K-9s detect the difference in odor¹⁴. Moreover, the U.S. Drug Enforcement Administration put out a request for information on private companies that might have the technology for field tests sensitive enough to distinguish between hemp and marijuana¹⁵.

4. Neither the Fifth Circuit, nor any court, has meaningfully dealt with the issue presented in this case.

The Fourth Amendment to the United States Constitution protects American citizens from unlawful and arbitrary seizure of property by the state. Improperly seized evidence, even if indicative of criminal activity, is inadmissible in court as a violation of this Constitutional protection of our rights.¹⁶ Since the adoption of the 2018 Farm Bill, an officer cannot rely on sight



- K9 not trained to distinguish
- False positives
- The sniff is no longer reliable PC
- *People v. McKnight*
Colorado Supreme Court

**“K9 alerted to presence
of Narcotics”**

People v.
McKnight
446 P.3d 397
(May 2019)

- Dog alerted on a pipe that later had meth
- But dog is cross trained and can render a false positive
- “A sniff from a dog trained to alert to marijuana is a search in Colorado that must be supported by probable cause and justified under an exception to the warrant requirement.”

**ALL K9
cases are
F@#\$ED
now!!!**



Meth, coke,
heroin, MJ, will all
get false positives



All dogs must be
retired



Happy Retirement!!!



- Can you tell the difference between a THC pen and a CBD pen?

**No more PC for
Pens and Cartridges**

IF no Probable Cause

1. Obviously, **arrest suppressed**
2. But **seizure suppressed** too
3. And post arrest **statements admitting its THC suppressed** also
4. AND **testing to confirm it is THC suppressed!**



HUGE DEAL!!!

**If no pre-arrest admissions a
pen is THC, its virtually
impossible to prosecute!**

What's left to Prosecute?

1. “License and registration”, “here’s my weed officer”
2. “Is that a THC pin I see in your hand? Why yes it is!”
3. Colorado THC Sticker on the Pen
4. “No Officer, its certainly not CBD”

What about a field test?

- But can a field test give PC to arrest?
- NO, because .03 of THC is allowed

If no suppression issues?

- Ok fine, we'll try it.
- Its always been about their Burden or Nullification

We always have the Jury

You can't prove its not Hemp or CBD

Burden to Prove What???

- State must prove:
- **Concentration**, not just that it is MJ or THC
- **Over .3%**

Proving Concentrates

- Prove its not CBD
- But also
 - Defendant's INTENT
- “Oh Gosh Officers, I thought it was CBD”

Remember THC “in” Hemp

- The **term does not include hemp**, as defined by Section 121.001, Agriculture Code, or **the tetrahydrocannabinols in hemp**.
- **How do they know this THC didn't come from Hemp?**

Compassionate Use Act

- Low THC marijuana has been legal since 2015
- HSC 487.001–.201 authorizes the cultivation, processing, and dispensing of low-THC cannabis to prescribed patients with intractable epilepsy



Compassionate Use Program



OVERVIEW

The Texas Compassionate Use Act (Senate Bill 339) was enacted by the Texas Legislature in 2015 (84th Legislative Session). The bill required DPS create a secure registry of physicians who treat epilepsy, Read more...

OVERVIEW

LAWS AND REGULATIONS

Enabling statutes, administrative rules, and related information may be found here.

LAWS AND REGULATIONS



LICENSING AND REGISTRATION

Application and renewal instructions and related information may be found here.

LICENSING AND
REGISTRATION





Overview



The Department of Public Safety (DPS) administers the Compassionate Use Program (CUP) in Texas, under the authority of the [Texas Health and Safety Code, Chapter 487](#). Through the program, DPS operates a secure online registry of qualified physicians who can prescribe low tetrahydrocannabinol (THC) to patients with specific medical conditions. The registry, called the Compassionate Use Registry of Texas (CURT), is designed to prevent more than one qualified physician from registering as the prescriber for a single patient, is accessible to law enforcement agencies and dispensing organizations to verify patients of low-THC cannabis, and allows a physician to input safety and efficacy data derived from the treatment of patients for whom low-THC cannabis is prescribed. DPS also manages the licensing of organizations that dispense low-THC cannabis to patients in the Compassionate Use Registry of Texas.



87th Legislative Session: 2021

Summary of New Laws Impacting the Compassionate Use Program

HB 1535 *Effective September 1, 2021*

Caption: Relating to the medical use of low-THC cannabis by patients with certain medical conditions and the establishment of compassionate-use institutional review boards to evaluate and approve proposed research programs to study the medical use of low-THC cannabis in the treatment of certain patients.

- Expands the medical conditions for which low-THC cannabis may be prescribed to include non-terminal cancer, post-traumatic stress disorder, and those medical conditions designated by the Health and Human Services Commission as authorizing treatment with low-THC cannabis as part of an approved research program.
- Increases maximum THC level of low-THC cannabis to 1% by weight.
- Establishes compassionate-use institutional review boards to evaluate and approve proposed research programs to study the medical use of low-THC cannabis.

Qualifying Conditions

ALS

(Amyotrophic Lateral
Sclerosis)

ALZHEIMER'S DISEASE

And other dementias

AUTISM

And other spectrum
disorders

CANCER

CEREBRAL PALSY

EPILEPSY

And other seizure disorders

HUNTINGTON'S DISEASE

MS

(Multiple Sclerosis)

PARKINSON'S DISEASE

PERIPHERAL NEUROPATHIES

PTSD

SPASTICITY

MEDICINE

0:1 THC-ONLY TINCTURE

[REFILL YOUR PRESCRIPTION](#)



ACTIVE INGREDIENTS (SINGLE CONCENTRATION)

10 mg THC per 1 mL of tincture

SIZE

30 mL (300 mg THC)

PRICES

\$60

FLAVORS

Unflavored (contains Terpenes)

BLENDS

Plus (contains Terpenes)



Texas Department of Public Safety

Services

Driver License & IDs

Regulatory Services

Crime Records

[Home](#) > [Compassionate Use Program](#) > Licensing & Registration

Licensing & Registration

Compassionate Use Registry of Texas (CURT)

- [Access CURT Now](#)
- [Physician Application Instructions \(PDF\)](#)
- [Physician Registration](#)
- [Physician Search](#)

Program Information

- [Dispensing Organization Licensing](#)
- [Employee Registration](#)
- [Fingerprinting Instructions](#)

Contact Information

- [Consumer Complaint Sign \(PDF\)](#)
- Customer Support: (512) 424-7293



Compassionate Use Registry of Texas

Texas Compassionate Use Program



Login

Login

[Forgot User Name](#)

[Forgot Password](#)

Regulatory Services Division

For more information about the Compassionate Use Program click [here](#)




Compassionate Use Registry of Texas

Texas Compassionate Use Program



Physician Email Invitation and Validation

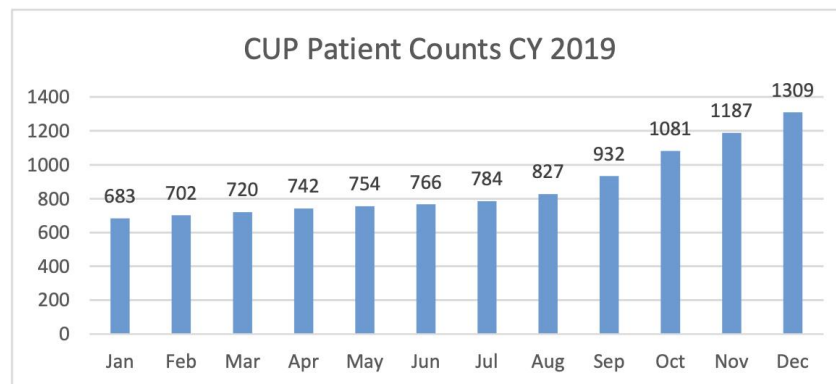
First Name	
Middle Name/Initial	
Last Name	
Email Address	
Confirm Email Address	

Submit

Reset

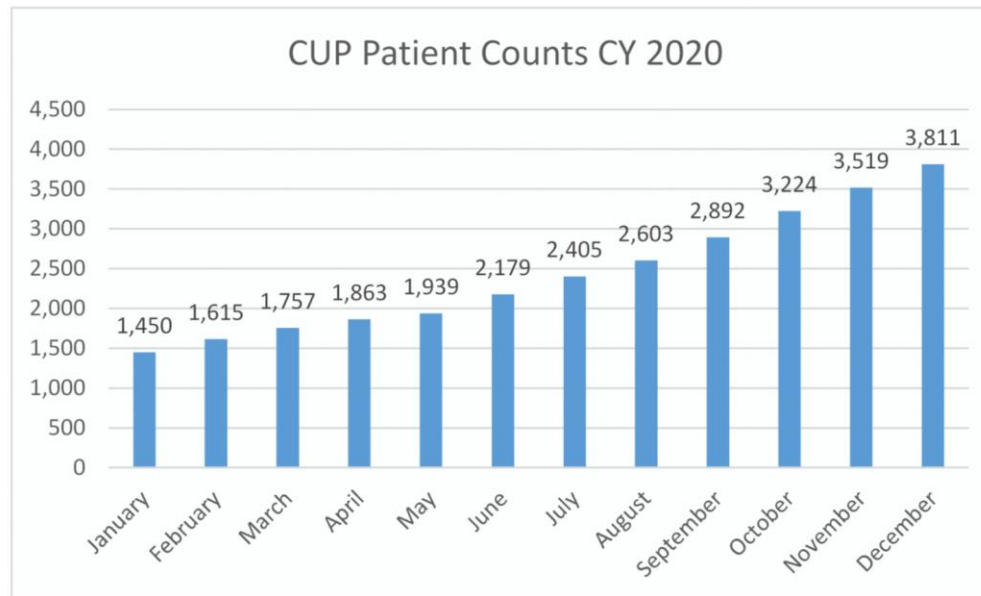


The graph below represents the number of patients listed by their physicians in the Compassionate Use Registry



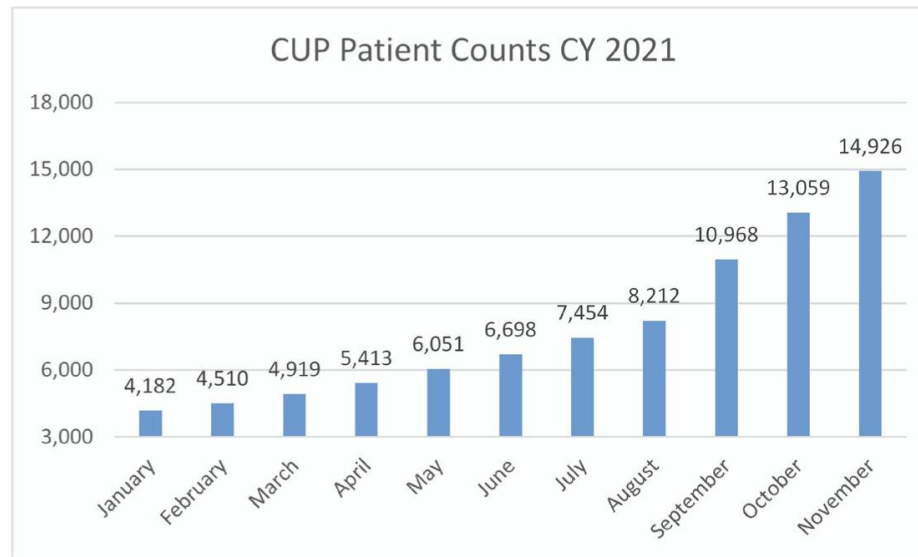


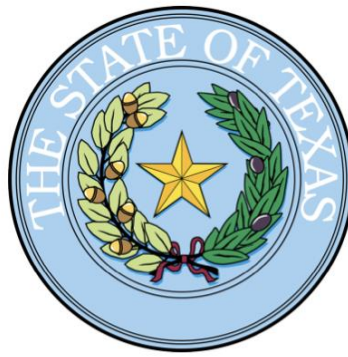
The graph below represents the number of patients listed by their physicians in the Compassionate Use Registry



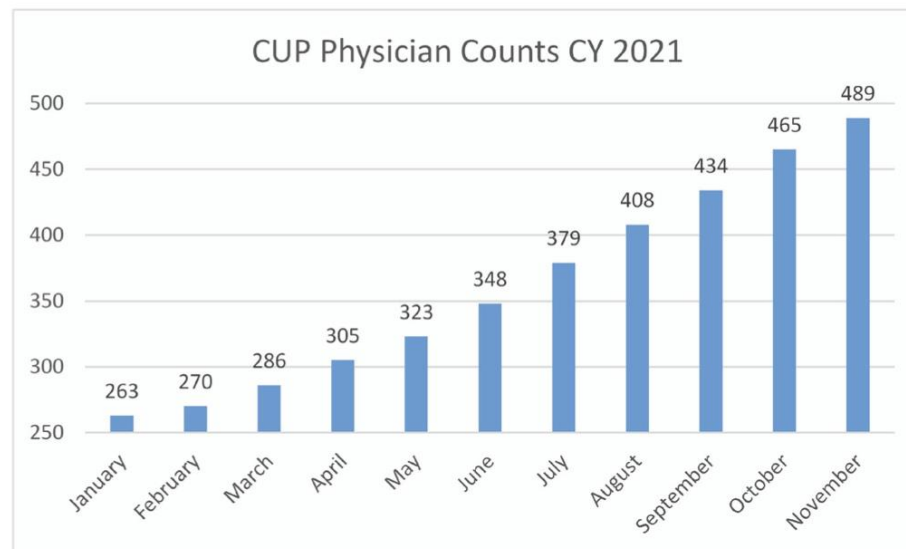


The graph below represents the number of patients listed by their physicians in the Compassionate Use Registry





The below graph represents the number of physicians approved by the Regulatory Services Division to prescribe low-THC cannabis through the Compassionate Use Program.



Still going to Trial

- If after all that...
- Good luck on State getting an expert!!

What kind of TESTING?

- No experts
- No scientifically validated testing protocols
- No uncertainty data

Assuming the got their shit together

- **NO WAY TO DO CONCENTRATIONS**
- Gas chromatography
- Flame ionization
 - Heat Problem
 - THCA + heat = CO₂ and THC

One Possible way

- High performance liquid chromatography
- Do you know what that is?
- Good neither does anyone else!

CERTIFICATE OF ANALYSIS



Order #: 33472
Order Name: Wildseed Hemp
Lifter
Batch#: Hf38463
Received: 07/18/2019
Completed: 07/22/2019

Wildseed Hemp LLC
11604 Vance Jackson rd #1084
San Antonio TX, 78230
(512) 348-9907
wildseedhemp@gmail.com



Sample



0.133%
D9-THC

15.545%
Total CBD

Cannabinoids Test

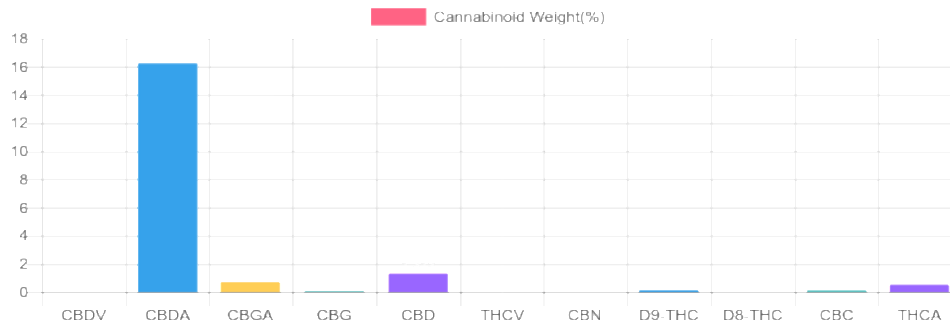
SHIMADZU INTEGRATED UPLC-PDA

GSL SOP 400

PREPARED: 07/19/2019 22:05:44

UPLOADED: 07/22/2019 18:25:14

Cannabinoids	LOQ	weight(%)	mg/g
D9-THC	10 PPM	0.133%	1.327
THCA	10 PPM	0.521%	5.214
CBD	10 PPM	1.312%	13.118
CBDA	20 PPM	16.229%	162.289
CBDV	20 PPM	N/D	N/D
CBC	10 PPM	0.124%	1.244
CBN	10 PPM	N/D	N/D
CBG	10 PPM	0.064%	0.639
CBGA	20 PPM	0.719%	7.194
D8-THC	10 PPM	N/D	N/D
THCV	10 PPM	N/D	N/D
TOTAL D9-THC		0.133%	1.327
TOTAL CBD*		15.545%	155.445
TOTAL CANNABINOIDS		19.102%	191.025



Reporting Limit 10 ppm

*Total CBD = CBD + CBDA x 0.877

N/D - Not Detected, B/LOQ - Below Limit of Quantification



4001 SW 47th Avenue Suite 207
Davie, FL 33314
1-833-TEST-CBD
info@greenscientificlabs.com

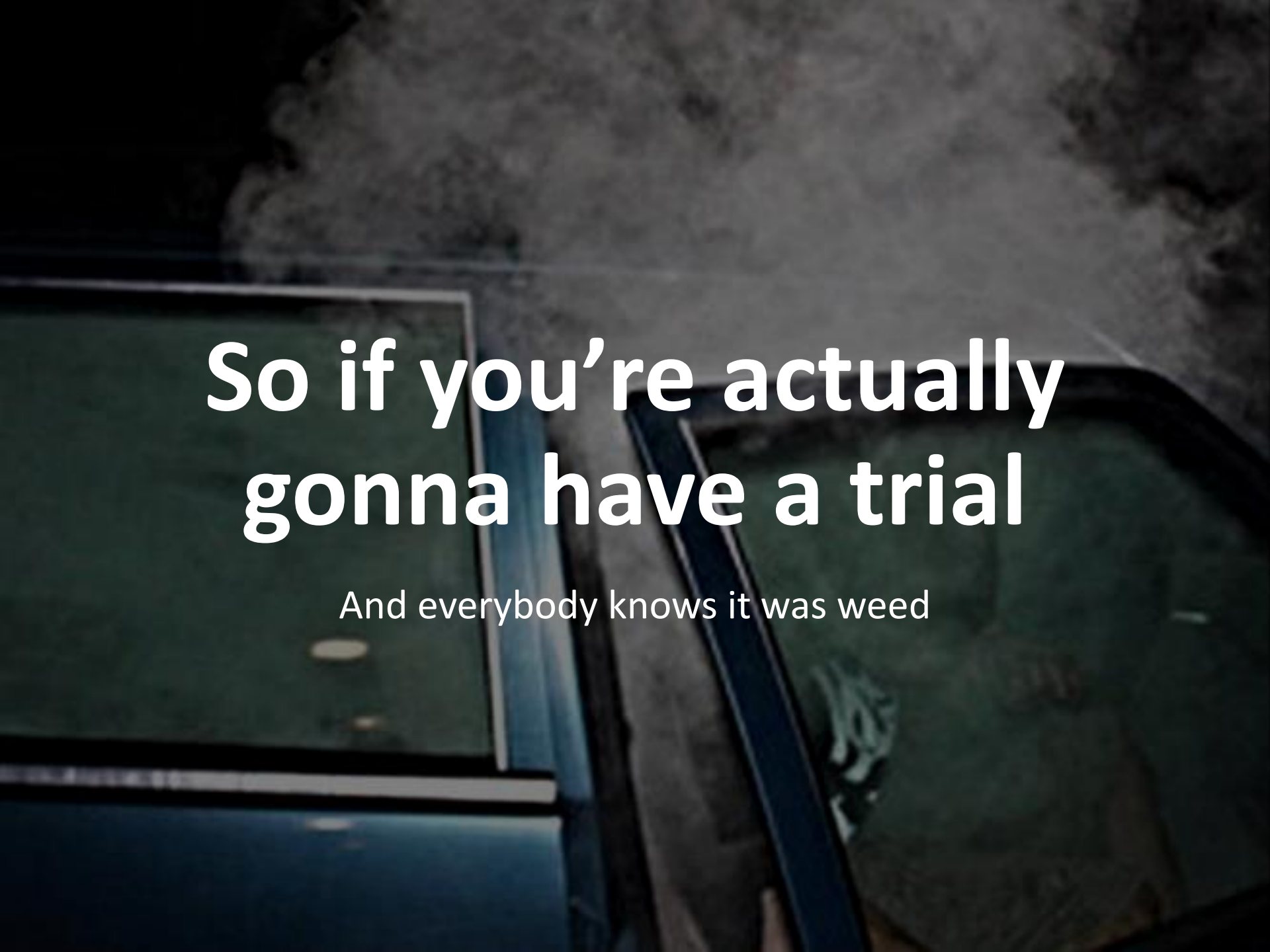


Dylan Swart
Dylan Swart, Lab Director

Green Scientific Labs uses its best efforts to deliver high quality results and to verify that the data contained therein are based on sound scientific judgment and levels listed are guidelines only and all data was reported based on standard laboratory procedures and deviations. However Green Scientific Labs makes no warranties or claims to that effect and further shall not be liable for any damage or misrepresentation that may result from the use or misuse of the data contained herein in any way. Further, Green Scientific Labs makes no claims regarding representations of the analyzed sample to the larger batch from which it was taken. Data and information in this report are intended solely for the individual(s) for whom samples were submitted and as part of our strict confidentiality policy, Green Scientific Labs can only discuss results with the original client of record.

Get an expert

- Where?
- They don't have one
- Better call Daniel Mehler



**So if you're actually
gonna have a trial**

And everybody knows it was weed

Try Good Ol'fashion Nullification

- Talk about all the **public opinion stats**
- Google **pop culture** references to weed
- Be **honest, talk** about how you smoke weed
- Tell them about the prosecutors that smoke weed!!!

Win your case in Voir Dire

- Get them talking about weed.
- If you can't talk for 30 minutes to a jury about weed, what are you doing here!
- Just talk about **weed** and the **hypocrisy** of **criminalization**
- Isn't the arrest enough!!!

DON'T forget that Jury Instruction

- Make sure you have it **ready before trial**
- Make sure **.3% concentration** is there
- Make sure it mentions **hemp or CBD**

**Its just a
weed case
bro!**

- What do you have to lose???
- If you can't convince a jury to find a guy not guilty on MJ, should you really be trying cases.
- And if you can't try cases then you don't deserve to plea them
- You have no RIGHT to be pleaing clients until you can win!!!

Guess what fed guys??

- Same stuff generally applies!
- Same Hemp definition

Be a PAIN IN THE ASS

- Make the case as **difficult** and **challenging** as possible
- And there's more....

Constitutional Challenges



FEDERAL
MOTION TO DISMISS



STATE
PRE-TRIAL WRIT

Federal Motion to Dismiss

- DEA investigation and surveillance
- Search Warrant issued
- 1500 plant grow house in San Antonio
- Nothing imported from out of state

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
SAN ANTONIO DIVISION**

UNITED STATES OF AMERICA

VS.

MICHAEL MYERS

§
§
§
§
§

CRIMINAL NO. 5:16-CR-00320-FB

**MOTION TO DISMISS UNCONSTITUTIONAL ENFORCEMENT OF MARIJUANA
PROHIBITION PROVISIONS OF THE CONTROLLED SUBSTANCES ACT**

**TO THE HONORABLE SENIOR UNITED STATES DISTRICT COURT JUDGE FRED
BIERY FOR THE WESTERN DISTRICT OF TEXAS:**

NOW COMES MICHAEL MYERS, the Defendant in the above styled and numbered cause, who by and through undersigned Counsel, respectfully files this Motion to Dismiss Unconstitutional Enforcement of Marijuana Prohibition Provisions of the Controlled Substances Act in this case pursuant to the Due Process and Equal Protection Clauses of the Fourteenth and Fifth Amendments of the Constitution of the United States, the Faithful Execution Clause in Article II, § 3, cl. 5 of the Constitution of the United States, the Principle of Equal Sovereignty, the Separation of Powers Doctrine established in Articles I, II, and III of the Constitution of the United States, and the Commerce Clause in Article I, § 8, cl. 3 of the Constitution of the United States, and for good cause shows the following:

The Defendant is charged with Conspiracy to Manufacture Marijuana in violation of 21 U.S.C. §§ 846 and 841(a) and Using and Maintaining Drug Premises in violation of 21 U.S.C. § 856.

1. Selective Prosecution

The Defendant is being selectively prosecuted in violation of the Fifth Amendment. The Defendant's selective prosecution is deliberately based on an arbitrary classification, namely, his choice to exercise protected legal rights. These protected rights are his right to equal sovereignty based on State citizenship and his right to travel. This prosecution has a discriminatory purpose because the Government chooses to enforce the Controlled Substances Act against citizens living and operating in Texas but not in Colorado or Washington. The prosecution has a discriminatory effect because other similarly situated individuals in Colorado and Washington are not being prosecuted for the same offenses as the Defendant despite the same conduct. The Government's classification along State lines lacks any conceivable basis to a compelling or legitimate government interest, and therefore fails to justify the selective policy.

2. Faithful Execution Clause

- Under the guidance and authority of the President, the Justice Department has identified eight federal enforcement priorities to shape the investigation and prosecution of marijuana crimes under the Controlled Substances Act in response to changing State marijuana laws. This Policy is outlined in the “Cole Memo.” The eight priorities identified by the Department of Justice misstate the intent of Congress when enacting the Controlled Substances Act. While the Justice Department cites strained resources as the justification for a narrowed field of federal priorities, the policy described in the Cole Memo represents an unconstitutional failure of the Executive to **“take Care that the Laws be faithfully executed”** as required by **Article II, § 3, cl. 5 of the Constitution of the United States.**

3. Principle of Equal Sovereignty

The policy of selective enforcement, discriminating based on State citizenship and location, must undergo heightened scrutiny under the principle of equal sovereignty. The Executive Branch's policy of discrimination fails heightened scrutiny because the disparate geographic coverage of the policy is not sufficiently related to the problem it targets. If the Department of Justice desired to efficiently use their resources to achieve the intent of the Controlled Substances Act, more frequent prosecutions would take place in the jurisdictions in which no local law enforcement officers assist in crime fighting efforts versus in jurisdictions with laws nearly identical to the Controlled Substances Act and a supportive local law enforcement effort.

4. Separation of Powers Doctrine

- The President's selective enforcement of the Controlled Substances Act violates the Separation of Powers Doctrine. The Executive Branch allows citizens of Colorado and Washington to engage in marijuana related business activities by not enforcing the Controlled Substances Act. The policy pronounced in the Cole Memo is a de facto regulation of commerce. This action creates a de facto legal market for the cultivation and distribution of marijuana within those States. The Constitution does not grant the President the power to regulate this commerce or create these otherwise prohibited markets without Congressional authority. The President far exceeded his Constitutional authority under the guise of prosecutorial discretion and the resulting scheme is a violation of Articles I, II, and III of the Constitution of the United States.

5. The Controlled Substances Act lacks any Rational Basis

The federal prohibition of the possession, manufacture, and distribution of marijuana legislated in the Controlled Substances Act has lost its rational basis because the law is not enforced uniformly across the country. Arguments that marijuana prohibition is rationally related to a legitimate government interest are nullified when the Executive Branch and its subordinate agencies arbitrarily allow marijuana cultivation and distribution in some states and not in others. The Federal Government can name no reason consistent with Congress's findings when enacting the Controlled Substances Act that it enforces the marijuana prohibition of the Controlled Substances Act in a State with strict marijuana prohibition, like Texas, but fails to enforce marijuana prohibition of the Controlled Substances Act in States that allow recreational cultivation and distribution (Colorado and Washington).



**So how'd that
go Don??**

Ahhh, probation, duh!

State Pre-Trial Writ

- Attacking the Texas Controlled Substances Act

WRIT 2935

NO. CC516362

E-FILED
Bexar County, County Clerk
Lucy Adame-Clark
Accepted Date: 5/1/2019 10:16 AM
Accepted By: Graciela Mares
/s/ Graciela Mares
Deputy Clerk

EX PARTE

§
§
§
§
§

IN THE COUNTY COURT

AT LAW NO. 2

MARIO GUTIERREZ, IV.

BEXAR COUNTY, TEXAS

**APPLICATION FOR PRE-TRIAL WRIT OF HABEAS CORPUS
SEEKING RELIEF FROM UNCONSTITUTIONAL STATUTE
& UNCONSTITUTIONAL PROSECUTION**

**TO THE HONORABLE GRACE M. UZOMBA, JUDGE OF THE COUNTY COURT AT
LAW NO. 2 OF BEXAR COUNTY, TEXAS:**

COMES NOW MARIO GUTIERREZ, IV., Applicant in the above-entitled and numbered cause, by and through Donald H. Flanary, III., and Amanda I. Hernandez, his attorneys, and presents this pre-trial Application for Writ of Habeas Corpus Seeking Relief from Facially Unconstitutional Statute pursuant to the Fifth, and Fourteenth Amendments to the United States Constitution; Article 1, § § 10, 12, and 19 of the Texas Constitution; and Article 11.09 of the Texas Code of Criminal Procedure.

Applicant is currently charged and held under conditions of bond in this Court with one misdemeanor count of Possession of Marijuana, 0 to 2 oz., in cause number 516362.

I. BASIS FOR WRIT

Applicant is illegally confined and restrained of his liberty by virtue of these unconstitutional charges. The charges are illegal because they are based on a facially invalid statute which criminalizes the possession of marijuana. This statute violates multiple rights protected by the both the United States Constitution and Texas Constitution. Section 481.121 of the Texas Healthy and Safety Code, titled "Offense: Possession of Marihuana," is unconstitutional on its face for the following reasons:

NO. 516362

STATE OF TEXAS	§	IN THE COUNTY COURT
	§	
vs.	§	AT LAW 2
	§	
MARIO GUTIERREZ, IV.	§	BEXAR COUNTY, TEXAS

MOTION TO DISMISS
[Seeking Relief From Facially Unconstitutionally Statute]

**TO THE HONORABLE GRACE M. UZOMBA, JUDGE OF THE COUNTY COURT AT
LAW NO. 2 OF BEXAR COUNTY, TEXAS:**

COMES NOW MARIO GUTIERREZ, IV., Defendant in the above-entitled and numbered cause, by and through Donald H. Flanary, III., and Amanda I. Hernandez, his attorneys, and files this Motion to Dismiss Seeking Relief From Facially Unconstitutional Statute pursuant to the Fifth, and Fourteenth Amendments to the United States Constitution; Article 1, § 10, 12, and 19 of the Texas Constitution; and Article 11.09 of the Texas Code of Criminal Procedure.

Defendant is currently charged and held under conditions of bond in this Court with one misdemeanor count of Possession of Marijuana in cause number 516362.

I. BASIS FOR MOTION TO DISMISS

Defendant is illegally confined and restrained of his liberty by virtue of these unconstitutional charges. The charges are illegal because they are based on a facially invalid statute which criminalizes the possession of marijuana. This statute violates multiple rights protected by the both the United States Constitution and Texas Constitution. Section 481.121 of the Texas Healthy and Safety Code, titled "Offense: Possession of Marihuana," is unconstitutional on its face for the following reasons:

Dormant Commerce Clause

- **Unduly burdens interstate commerce** by attempting to place an outright ban on the transportation of marijuana, including medical marijuana, which is legal in all of Texas's neighboring states; and
- It **violates** the **Fundamental Right to Travel**.

New Business: Marijuana

- Attitudes about weed have changed across the country
- Most states have some form of legalization
- Many jurisdictions not prosecuting small amounts
- The legalization of Hemp and CBD
- **What's the deal with Delta 8?**

New Business: Marijuana

- What's the deal with Delta 8?

What is Delta-8 THC?

- An **Isomer** of **Delta 9 THC**
- Only occurs in **minuscule levels** in **cannabis**
- Synthetically manufactured by **chemical conversion** of **CBD**

What does Delta-8 do?

- Binds to the **CB1 receptors** in the central nervous system
- Is psychoactive

Why is it a thing?

- Since 2020 an **oversupply of CBD** extracted from **hemp** caused the **price** of CBD to drop
- Chemists began to convert CBD to Delta-8
- It is **produced industrially by synthesizing CBD** with solvents, acids and heat.
- Now sold on the grey market

Is Delta-8 illegal?

- Police and Prosecutors want to know

RECEIVED

By Opinion Committee at 4:24 pm, Nov 05, 2021



BRETT W. LIGON

District Attorney
9th Judicial District

Michael R. Holley
First Assistant District Attorney

RQ-0439-KP

FILE# ML-49051-21

I.D.# 49051

Christopher R. Smith, Chief Investigator
Melisa G. Appleton, D.A. Administrator

November 1, 2021

Hon. Ken Paxton
Attorney General of the State of Texas
ATTN: Opinion Committee
P.O. Box 12548
Austin, TX 78711-2548

Re: request for an opinion regarding whether the exclusion of “tetrahydrocannabinols in hemp” from the statutory definition of “controlled substance” precludes prosecution of individuals for the possession and sale of delta-8 tetrahydrocannabinol products derived from hemp.

Dear Attorney General Paxton:

Montgomery County peace officers have encountered products labeled for sale as containing a therapeutic or intoxicating concentration of delta-8 tetrahydrocannabinol (THC). I request your legal opinion regarding the following issue:

Are products containing concentrated or synthesized delta-8 THC still unlawful to possess or sell under sections 481.103, 481.113 and 481.116 of the Texas Health and Safety Code? Or are delta-8 THC products no longer subject to prosecution under section 481.002(5) of the Health and Safety Code—which excludes “tetrahydrocannabinols in hemp” from the statutory definition of “controlled substance”—if the delta-8 THC is extracted or synthesized from lawfully-grown hemp products?

This office respectfully suggests that the attorney general confirm that possession or sale of concentrated or synthesized delta-8 THC products remains a criminal offense under the Health and Safety Code; and that the section 481.002(5) exclu-

TCDLA Cannabis Committee's Conclusion?

Delta-8 is illegal

- Yes, it is illegal
- Because it is **synthesized** and it is an **isomer**
- **Hemp derived** Delta-8 is **legal**
- **CBD derived** Delta-8 is **illegal**

Delta-8 is NOT safe

- Very little testing on humans
- Illegally produced
- No manufacturing is regulated
- Contains impurities in the manufacturing process

But they still can't prove it!

- Labs still cannot prove that the Delta-8 isn't hemp derived.

9th Circ. Says Delta-8 Vapes Are Federally Lawful In TM Case

By Sam Reisman

Law360 (May 20, 2022, 9:29 PM EDT) -- The Ninth Circuit has held that the 2018 federal Farm Bill that legalized hemp nationwide also legalized some products containing Delta-8 THC, a psychoactive chemical compound derived from hemp.

In a published decision issued Thursday, a three-judge panel for the appellate court said e-cigarette manufacturer AK Futures had a legitimate trademark on its line of Delta-8 vapes, and the judges upheld a preliminary injunction against wholesaler Boyd Street Distro LLC.

"Plain statutory text compels the conclusion that AK Futures' products are lawful, and we see no other reason to deny a preliminary injunction," Circuit Judge D. Michael Fisher wrote for the panel.

Other Cannabinoids

- Other isomers, **not naturally occurring**
- Produced in labs
- Delta-10
- Delta-6
- Delta-7



Whatever you do,
just don't plea!

Fine!

Yes, there are some situations
were Deferred and MAYBE straight
probation is a last resort

NEVER plea to jail or prison

A pro-se defendant can do better than that

210-789-3181

donflanary@hotmail.com



FLANARY
LAW FIRM, PLLC



**KEEP
CALM
AND
SMOKE
WEED**



210-789-3181

donflanary@hotmail.com

The NEW Hemp Industry



WILDSEED
—HEMP—



SA|Botanicals

So You Want to Grow Hemp In Texas?



Must have a
**Hemp Grower's
License**

To CULTIVATE,
HANDLE, or
TRANSPORT OUT
OF STATE



DOA will be developing
rules and regulations

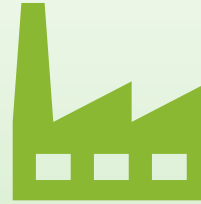


Rules must cover sampling,
inspection, and testing
(including lab standards)



Rules must provide due
process and an appeals

What DSHS must do



Establish a manufacturing
licensure program for
consumable hemp products.



Create a registration process for
retailers selling consumable
hemp products containing CBD.

What DSHS must do

- Work with DPS on random testing for consumable hemp products containing CBD sold at retail. Random testing will not occur until the retail registration process is established after the TDA state plan approval.

What's this going to cost?

What's this going to cost?



What's this going to cost?

- **Application** for license: not to exceed \$100
- **Renewal** of a license: not to exceed \$100
- Participation fee for **each location** under a license: not to exceed \$100

What's this going to cost?

- **Site modification** fee: not to exceed \$500
- **Testing fee** (pre and post harvest): not to exceed \$300
- Only other allowable fees will be to certify organic and certify seeds, which are To Be Determined

Hemp Grower's License

- Must have to **cultivate, handle, or transport** hemp
- **Not required** to manufacture a consumable product
- Department will produce the applications

Hemp Grower's License

- License must be issued within 60 days to qualified applicants
- Valid for 1 year, renewable annually
- Will be revoked for a felony controlled substance conviction

Transportation

- State will issue a **SHIPPING CERTIFICATE** and **MANIFEST** with a **UNIQUE IDENTIFIER** attached to the shipment
- Cannot transport anything else with a hemp shipment
- Must document origin specifically

Transportation

- Peace officers can inspect and sample the shipment. Unless they have probable cause, they **MAY NOT SEIZE** the plant material

210-789-3181

donflanary@hotmail.com



FLANARY
LAW FIRM, PLLC



**KEEP
CALM
AND
SMOKE
WEED**



210-789-3181

donflanary@hotmail.com