



EIGHTH
REVOLUTION



ARCVIEW
CONSULTING

Cannabinoid MONTHLY PLAYBOOK

March 2023





NOTICE

The information contained in this document is intended for the sole use of the designated recipients. This information cannot be shared. If you have received this information in error, any review, dissemination, distribution, or copying of this information is strictly prohibited and is an infringement of copyrights. Please notify us immediately if you have received this information from a source other than Eighth Revolution or The Arcview Group. Thank you in advance for supporting copyright laws and integrity in the industry.

**For questions or concerns,
please contact**

info@8threv.com

inquiries@arcviewconsulting.com

516.653.2006

arcviewgroup.com

eighthrevolution.com

arcviewconsulting.com

TABLE OF CONTENTS

Consolidation After a Boom	6
Interview with Aaron Miles	7
Interview with Alvaro Torres	8
International Update	9
Minor Cannabinoid Wholesale Pricing	10
Systematic Approach to the Smart Factory	13
Advertising on Google and Twitter	15
Sector Market Analysis	18
The Cannabis Flight Study	19
Hot in the News	22

Dear Reader,

We want to thank you for your trust, and, most importantly, your time. With the endless number of resources at your disposal, we appreciate you leaning on us as your guide through the muddy waters of this industry's limitless news and intelligence.

In an industry that changes as aggressively as ours, we can't stress the importance of effective decision-making enough. Though the information in the report is never meant to dictate specific actions or guarantee certain outcomes, we hope that we're able to provide another voice in the room, one that illuminates, simplifies, and supports you.

If you find one area of information more helpful than others and want us to expand on the topic, please never hesitate to reach out. For any suggestions or questions, we can be reached directly at info@8threv.com

Welcome to the Revolution



Bryan Fields

*Managing Director
& Co-Founder
Eighth Revolution*



Kellen Finney

*CSO & Co-Founder
Eighth Revolution*



David Abernathy

*Principal
Arcview Consulting*



Jason Malcom

*Principal
Arcview Consulting*

IN THIS ISSUE

March 2023

Cannabis Layoffs Expected to Continue.

Kellen Finney, Eighth Revolution

The cannabis industry is still in its early stages, which means ups and downs are natural. Unfortunately, in today's macroeconomic climate, we can expect more layoffs in the industry. With Washington DC still posing obstacles to federal legalization, the challenges facing the industry will continue. It's a tough time for everyone, but we can take solace in the fact that this is not unique to cannabis. Other industries are facing similar difficulties, and we can come together to support each other through these times. Let's remain optimistic about the future of the industry and keep working hard to overcome these challenges. After all, we're all in this together!

Budding the Future of Cannabis

Bryan Fields, Eighth Revolution

Despite industry-specific challenges, the future of the cannabis industry is bright. As public opinion shifts in favor of legalization, more states are expected to follow suit, and federal legalization may eventually be close behind. This could open up new investment and growth opportunities while providing greater consistency and stability in the marketplace.

At the same time, the industry is facing several challenges, including a lack of consistent federal regulations, a patchwork of state-level rules, and an ongoing stigma surrounding cannabis use. This has led to a complex and rapidly evolving marketplace, with varying quality and pricing of products and services.

“

***Missouri tops
\$12.6 million on
opening weekend
of adult-use
marijuana sales***

“

Consolidation After a Boom

The days of the green rush and growth at all costs are officially behind us. Capital markets are in the dumps, and retail investors are fatigued.

Many like to push back on the idea that cannabis is in the infancy stage, given its long-time underground position, but the truth is that we are still so early in its legalized and regulated existence. Cannabis continues to be a state-led story, and states continue to lead the headlines. Some mature markets are begging for relief (California), and others are chomping to open their doors (New York). Industry consolidation is unfortunate as operating in a highly regulatory capital-intensive industry with extensive macro factors builds nauseating operating conditions.

The unfortunate reality is that we are about to set forth on a path where many will not be with us in 12-24 months. The consolidation in the cannabis industry is experiencing similar challenges to those faced by other emerging markets, such as the dot-com boom and bust, the renewable energy sector, and the biotech industry.

Dot-com boom and bust: During the dot-com boom in the late 1990s and early 2000s, many internet companies experienced rapid growth and valuations that were not supported by earnings or a clear path to profitability. Similarly, the cannabis industry has experienced a rush of investment and speculation, with many companies receiving high valuations without demonstrating profitability or a clear path to sustained growth.

Renewable energy sector: The renewable energy sector has struggled to compete with traditional energy sources due to high costs, inconsistent government policies, and market volatility. Similarly, the cannabis industry faces challenges such as varying government regulations, high taxes, and market volatility due to changing consumer preferences and other factors.

Biotech industry: The biotech industry faces challenges such as lengthy and expensive drug development processes, strict regulations, and high costs. Similarly, the cannabis industry faces strict rules related to the cultivation, processing, and sale of cannabis as well as challenges associated with developing and testing new products and treatments.

When an emerging market is first established, many small players may compete for market share with varying degrees of expertise and resources. This can result in a more cohesive marketplace, with consistent quality and reliability of products or services. That's precisely what many of us across the U.S. are experiencing to varying degrees.

Consolidation, on the other hand, allows stronger companies to acquire weaker ones or smaller players to merge and form larger, more stable entities. This leads to a more concentrated market, where the remaining players are likely to be more experienced, well-funded, and capable of delivering high-quality products or services. While this may frustrate many, this is a natural part of industry evolution. Consolidation can also create strong operators, which leads to greater efficiency, lower costs, and higher profits for the survivors.

All of this is to come eventually.

The cannabis industry is experiencing similar challenges to other emerging markets. While these challenges can be daunting, history has shown that emerging markets can ultimately thrive if they overcome these obstacles and consolidate into solid and sustainable industries. This consolidation process can lead to a more mature and sophisticated industry where the remaining players better understand the market and how to operate within it. This can benefit consumers by providing greater consistency, quality, and reliability while providing a more stable and predictable environment for investors. Ultimately, consolidation is a natural part of the business cycle, and those companies that survive and thrive will be better equipped to weather future storms and capitalize on new opportunities.



The Dime



Listen Now

A weekly podcast covering the entire Cannabis Industry.

How a Leading MSO Invests for the Cannabis Unknown

Are there cannabis-specific challenges when lobbying against Pharma and Alcohol with regulators?

Regulators don't have a firm grasp on the cannabis opportunity. I would say the challenge, and the opportunity for us is to continue to have those conversations. We can't compete from a lobbying dollar perspective with [Big] Pharma, Alcohol, and Tobacco. We just can't. And those are the industries that have the most to lose if cannabis starts to become more accepted by the general US population.

Did Safe Banking not passing hurt Verano, and whom did it hurt the most?

When Safe didn't pass, that was a disappointment across the board. I would've loved to have seen the headline that Safe passed. But for us, what changed when Safe *didn't* pass?

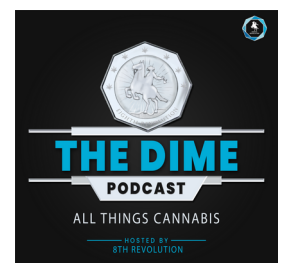
Absolutely nothing—because we don't operate the businesses [that are] based on assumptions of regulatory moves. There were operators that were like, "We need Safe to pass because if Safe [Banking] doesn't pass, the lights are going to turn off here very quickly." So, that's the sad reality of the business—that Safe has always been characterized as catering to the Tier Ones, giving us access to capital and uplifting, and there's going to be just domination in the market.



Aaron Miles, Chief Investment Officer at Verano

How 280E continues to be the biggest hindrance to cannabis operators

280E, I think, is the biggest opportunity for the space because I don't think people truly understand what paying taxes off the gross profit line looks like for the business. 280E is amazing to me when there are all these anti-money laundering concerns, and we've got to be careful because it's cannabis, but you're going to overtax us, and you're going to take those same dollars that you're concerned about.



*** The following transcript is AI-generated and some words have been removed for spacing. Please listen to the episode for full context.



The Dime



Listen Now

A weekly podcast covering the entire Cannabis Industry.

Health Insurance that pays for your Medical Cannabis & International Opportunities

On how data-based evidence is beneficial for the cannabis industry for changing minds

The language of data gets everybody excited. I love when a client comes back and asks 10,000 questions that we don't know the answer to because, to get to those questions, we must answer 1,000,000 questions that nobody else could answer.

What the international cannabis landscape will look like in 5 years

I think, in five years, shipping cannabis across the world will probably be a little bit hard. I think every country will want to have its own product, and they will probably try to make it more difficult to get products cheaper from outside. And I say that because I am thinking about Mexico and Brazil.

Now, you're hearing about a lot of U.K. companies who are cultivating the U.K. and Brexit, so I think about things like lead times, for instance. Those are the type of things that we think about. How do we improve lead times? How do we get the product faster from one place to the next?

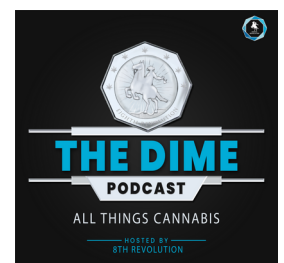


Alvaro Torres, Co-Founder, CEO and Director at Khiron Life Sciences Corp

Reducing opioid dependency and improving medical patient access to cannabis covered by insurance

I think Columbia's one of the most advanced countries when it comes to the regulation of medical cannabis. It is true that it's only focused on oils and extracts as a medical market, but it's also true that the government has unequivocally decided to cover medical cannabis for patients. You think of other countries that have this, [and] you think about Germany but not the United States.

*** The following transcript is AI-generated and some words have been removed for spacing. Please listen to the episode for full context.



INTERNATIONAL UPDATE

Canada

Cannabis producer Canopy cutting 800 jobs, closing flagship Canadian facility

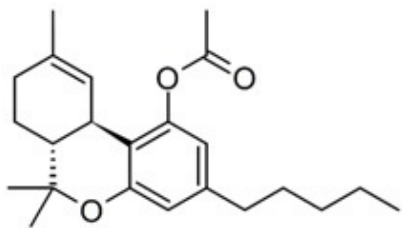
Australia

Australia Legalizes Psilocybin And MDMA Prescriptions As U.S. Patients Seek Similar Authorization

City of Columbia

Columbia City Council paves way for recreational marijuana sales, permanent shelter for unhoused

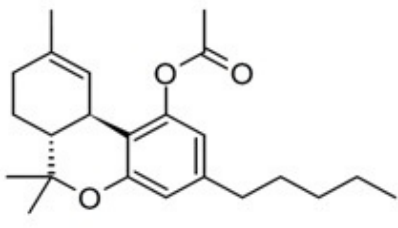
Minor Cannabinoid Wholesale Pricing



Industry Name: THC-OAcetate

CAS Number: 23132-17-4

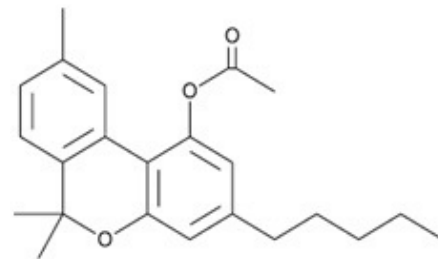
IUPAC: (6aR,10aR)-6,6,9-trimethyl-3-pentyl-6a,7,8,10a-tetrahydro-6H-benzo[c]chromen-1-yl acetate



Industry Name: HHC Acetate

CAS Number: 6692-85-9 (racemic)

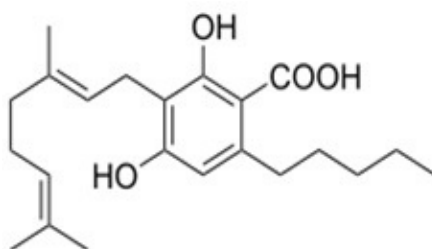
946512-74-9 (6aR,10aR)
IUPAC: (6aR,10aR)-6,6,9-trimethyl-3-pentyl-6a,7,8,9,10,10a-hexahydrobenzo[c]chromen-1-ol



Industry Name: CBN-O Acetate

CAS Number: 51895-51-3

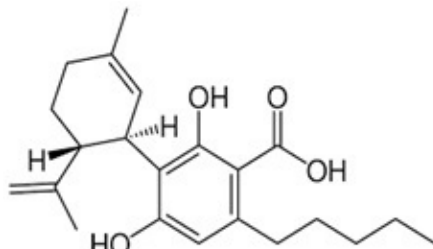
IUPAC: 6,6,9-trimethyl-3-pentyl-6H-dibenzo[b,d]pyran-1-ol, 1-acetate



Industry Name: CBGA

CAS Number: 25555-57-1

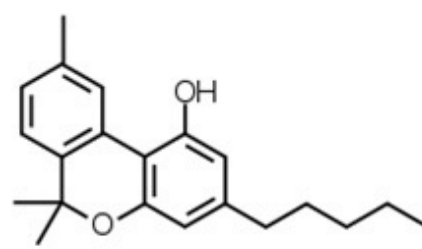
IUPAC: 3-[(2E)-3,7-Dimethylocta-2,6-dien-1-yl]-2,4-dihydroxy-6-pentylbenzoic acid



Industry Name: CBDA

CAS Number: 1244-58-2

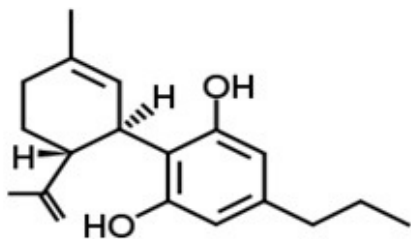
IUPAC: 2,4-dihydroxy-3-[(1R,6R)-3-methyl-6-(1-methylethenyl)-2-cyclohexen-1-yl]-6-pentyl-benzoic acid



Industry Name: CBN

CAS Number: 521-35-7

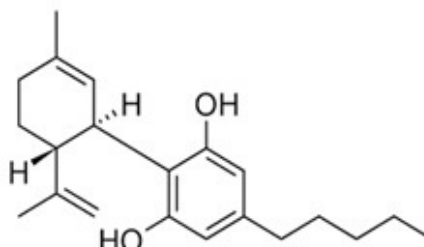
IUPAC: 6,6,9-trimethyl-3-pentyl-6H-dibenzo[b,d]pyran-1-ol



Industry Name: CBDV

CAS Number: 24274-48-4

IUPAC: 2-[(1R,6R)-3-methyl-6-(1-methylethenyl)-2-cyclohexen-1-yl]-5-propyl-1,3-benzenediol

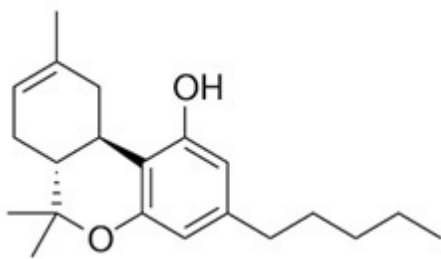


Industry Name: CBD

CAS Number: 13956-29-1

IUPAC: 2-[(1R,6R)-3-methyl-6-(1-methylethenyl)-2-cyclohexen-1-yl]-5-pentyl-1,3-benzenediol

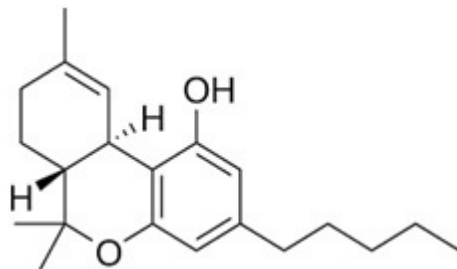
Minor Cannabinoid Wholesale Pricing



Industry Name: Δ8-THC

CAS Number: 5957-75-5

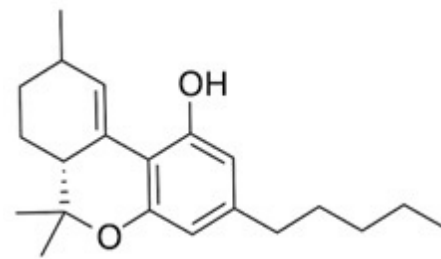
IUPAC: 6aR,7,10,10aR-tetrahydro-6,6,9-trimethyl-3-pentyl-6H-dibenzo[b,d]pyran-1-ol



Industry Name: Δ9-THC

CAS Number: 1972-08-3

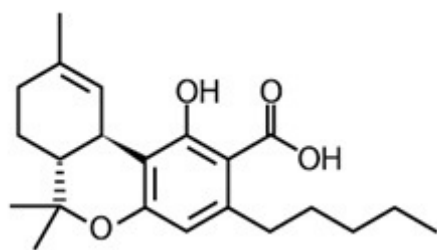
IUPAC: 6aR,7,8,10aR-tetrahydro-6,6,9-trimethyl-3-pentyl-6H-dibenzo[b,d]pyran-1-ol



Industry Name: Δ10-THC

CAS Number: (6aR, 9S) 95588-87-7

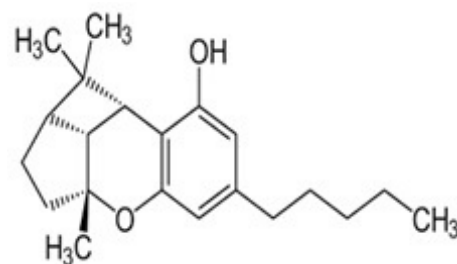
IUPAC: (6aR-trans)-6a,7,8,9-tetrahydro-6,6,9-trimethyl-3-pentyl-6H-dibenzo[b,d]pyran-1-ol



Industry Name: THCA

CAS Number: 23978-85-0

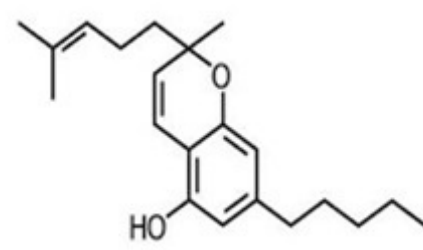
IUPAC: 6aR,7,8,10aR-tetrahydro-1-hydroxy-6,6,9-trimethyl-3-pentyl-6H-dibenzo[b,d]pyran-2-carboxylic acid



Industry Name: CBL

CAS Number: 21366-63-2

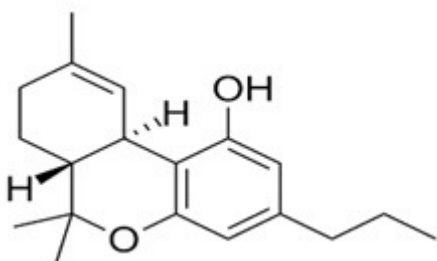
IUPAC: (1aS,1a1R,3aR,8bR)-1,1,3a-trimethyl-6-pentyl-1a,1a1,2,3,3a,8b-hexahydro-1H-4-oxabenzof[cyclobuta[cd]inden-8-ol



Industry Name: CBC

CAS Number: 20675-51-8

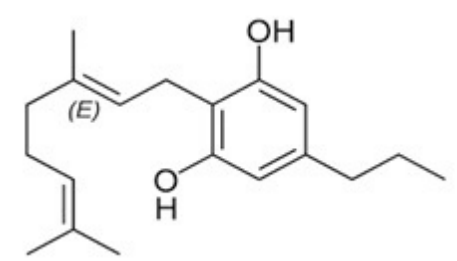
IUPAC: 2-methyl-2-(4-methyl-3-penten-1-yl)-7-pentyl-2H-1-benzopyran-5-ol



Industry Name: THCV

CAS Number: 31262-37-0

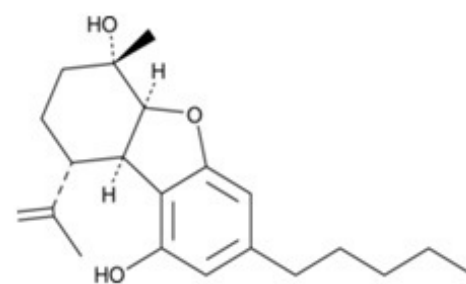
IUPAC: 6aR,7,8,10aR-tetrahydro-6,6,9-trimethyl-3-propyl-6H-dibenzo[b,d]pyran-1-ol



Industry Name: CBGV

CAS Number: 558224-11-8

IUPAC: 2-[(2E)-3,7-dimethyl-2,6-octadien-1-yl]-5-propyl-1,3-benzenediol

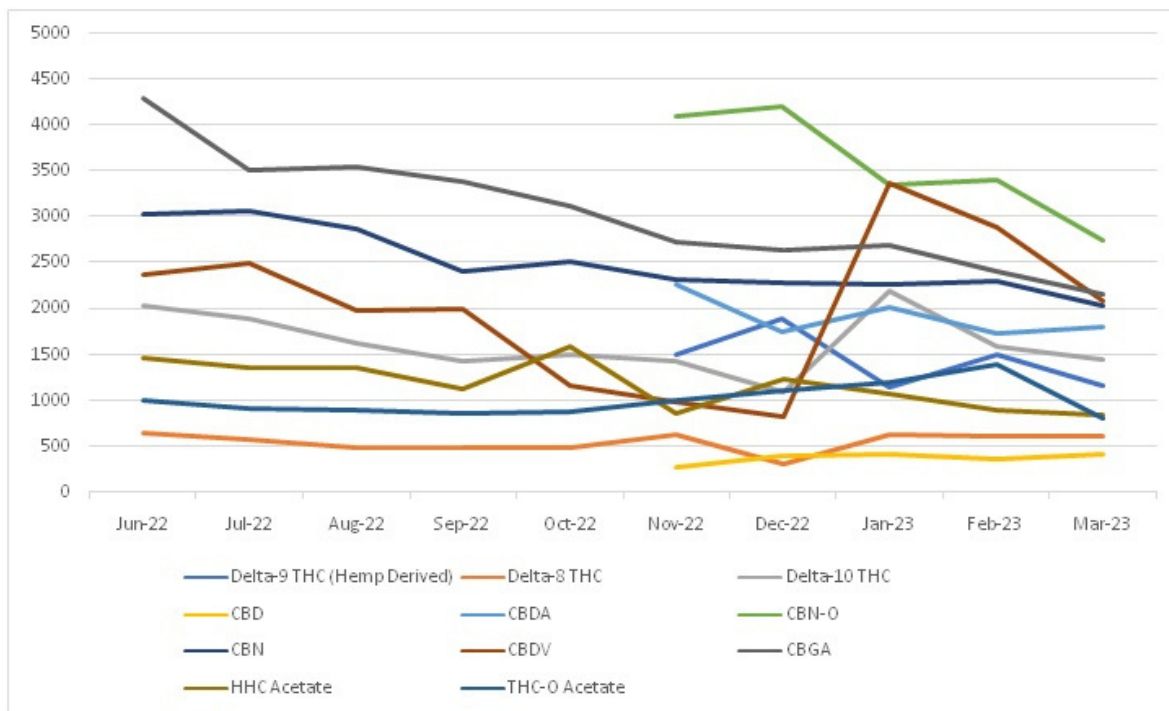


Industry Name: CBE

CAS Number: 52025-76-0

IUPAC: (5aS,6S,9R,9aR)-5a,6,7,8,9,9a-hexahydro-6-methyl-9-(1-methylethenyl)-3-pentyl-1,6-dibenzofurandiol

Minor Cannabinoid Wholesale Pricing



Based on our market observations, the price for almost every rare cannabinoid we track decreased. It was also observed that the prices of Delta-9 THC (Hemp-Derived) and CBN-O Distillate have experienced the most significant percentage changes. The price of Delta-9 THC (Hemp-Derived) Distillate has decreased by 22% from \$1,900.00 in February 2023 to \$1,174.75 in March 2023. Similarly, the price of CBN-O Distillate has decreased by 19% from \$4,200.00 in February 2023 to \$2,750.00 in March 2023. The prices of other products have also fluctuated during the period. For example, the price of CBD Isolate has increased by 13% from \$265.00 in January 2023 to \$401.67 in March 2023. CBDA Isolate and Delta-8 THC Distillate prices have also increased slightly during the period.

On the other hand, the prices of CBDV Distillate, THC-O Acetate Distillate, and CBGA Isolate have experienced significant percentage decreases during the period. Overall, our data suggest that the prices of cannabinoid products in the U.S. market are volatile and can fluctuate significantly within a short period. The changes in prices may be influenced by various factors such as supply and demand, regulations, and production technology advancements. It is essential for businesses operating in this market to stay up to date with the latest trends and make informed decisions to stay competitive.

***Disclaimer** Some of the text from this analysis was generated with an A.I. system.

Systematic Approach to the Smart Factory

PAT will become increasingly important in the cannabis product formulation industry due to the need for consistent and high-quality products. As we have discussed previously, Process Analytical Technology incorporates technology, techniques, and systems that can be used for real-time monitoring, control, and optimization of the manufacturing process. This month we will explore how PAT will transform the cannabis product formulation industry, specifically in vape pen formulation, terpene purification, and edible dose monitoring.

Vape Pen Formulation

Vape pens have become a popular method of cannabis consumption due to their convenience, ease of use, and discreteness. The formulation of vape pens requires precise control of the amount of cannabis oil, carrier oil, and terpenes to ensure consistent dosing and flavor profile. PAT can be used to monitor the entire vape pen formulation process, from mixing the ingredients to filling the cartridges. In the mixing stage, near-infrared (NIR) spectroscopy can measure the concentration of cannabinoids, carrier oil, and terpenes in real time. This allows for adjustments to the formulation on the fly to ensure that the final product meets the desired specifications.

Once the mixture is complete, the filling process can be monitored using machine vision technology. Machine vision technology can monitor the filling process, ensuring that each cartridge is filled to the correct level and that there are no leaks or defects.



Additionally, ultraviolet-visible (UV-Vis) spectroscopy can be used to monitor the color of the mixture, which is an indicator of the quality of the product. This ensures that the final product is of high quality and that there is no waste.

Systematic Approach to the Smart Factory

Terpene Purification

Terpenes are a critical component of cannabis products as they contribute to the flavor and aroma of the final product. However, terpenes can be challenging to purify, as they are typically present in low concentrations and can be easily degraded. PAT can monitor the terpene purification process, ensuring that the terpenes are of high quality and purity. Gas chromatography (G.C.) can be used to analyze the terpene profile of the initial cannabis extract. This information can then be used to develop a purification process to isolate the desired terpenes. During the purification process, NIR spectroscopy can monitor the concentration of the terpenes in real time, ensuring that they are not degraded during the purification process. This ensures that the final product has a consistent and high-quality terpene profile.



Edible Dose Monitoring

Terpenes are a critical component of cannabis products as they contribute to the flavor and aroma of the final product. However, terpenes can be challenging to purify, as they are typically present in low concentrations and can be easily degraded. PAT can monitor the terpene purification process, ensuring that the terpenes are of high quality and purity. Gas chromatography (GC) can be used to analyze the terpene profile of the initial cannabis extract. This information can then be used to develop a purification process to isolate the desired terpenes.



A new opportunity for cannabinoid companies – advertising on Google and Twitter

By Marc Brandl

After years of being banned from advertising Twitter and Google have announced major changes that could shake up the cannabis and CBD industry. Social media platforms dominate the advertising industry and now two of the biggest are allowing CBD and cannabis companies to run ads. Companies in the cannabinoid space will now be able to build brands with less friction. Creating a widely known brand is invaluable for companies that want to build a relationship and loyalty with their customers and attract new investors.

Companies that sell CBD topicals and FDA approved pharmaceutical products companies are now allowed to advertise on Google. Along with Meta, Google control a massive share of the digital advertising industry.

Twitter took a much larger step allowing both cannabis companies and CBD topicals brands to advertise albeit with many limitations.

Before launching a marketing and branding blitz Google requires CBD companies to jump through a few hoops – the biggest being gaining certification by a company called LegitScript.

In 2019 LegitScript released a report on CBD titled “The Online CBD Industry Unmasked”. The report was quickly criticized for its lack of nuance and scientific objectivity, with some accusing LegitScript of using the document to push an agenda against the growth of the CBD industry. More likely it was a smart way to create a new business line.

Twitter is the first big social media company to allow cannabis advertising on its platform. Such advertising is likely to be a welcomed source of additional revenue for Twitter following Elon Musk becoming the owner. Florida focused MSO Trulieve launched ads within days of the new policy being announced. Many more companies are expected to follow suite.

Limitations on advertising on Twitter include:

- Advertisers may not target consumers under the age of 21.
- The policy permits the advertising of “approved Cannabis (including CBD– cannabinoids)”
- The marketing of cannabis may now take place on Twitter, targeting 21 United States jurisdictions.
- Have landing pages that are age-gated and sales must be age verified.
- Not use characters, sports-persons, celebrities, or images/icons that appeal to minors.
- Not show cannabis product use.
- Not depict people under the influence.
- Not encourage transport across state lines.

A new opportunity for cannabinoid companies – advertising on Google and Twitter

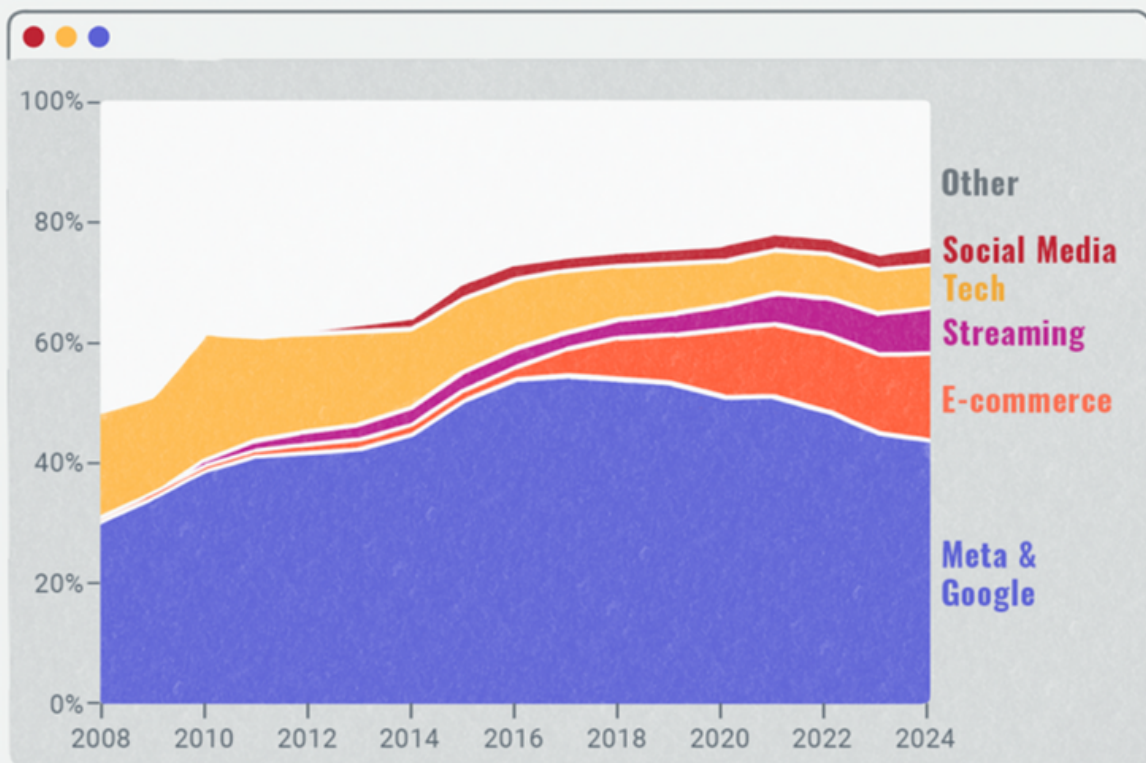
By Marc Brandl

Why now for Google and Twitter?

1. The rapidly growing popularity of CBD and cannabis products in the US. New billion-dollar state markets opening including New York.
2. Diminishing domination of the digital ad space, especially for Google

Ad spend is diversifying

Share of US digital ad spend by category



DATA: Insider Intelligence via Axios

Ecommerce includes Amazon, eBay, Walmart, and Etsy; streaming includes TikTok, Hulu, Roku, Pluto, Tubi, Spotify, Pandora, and iHeartMedia; tech includes Microsoft, Yelp, and Verizon/Yahoo; social includes Snap, Twitter, Pinterest and Reddit

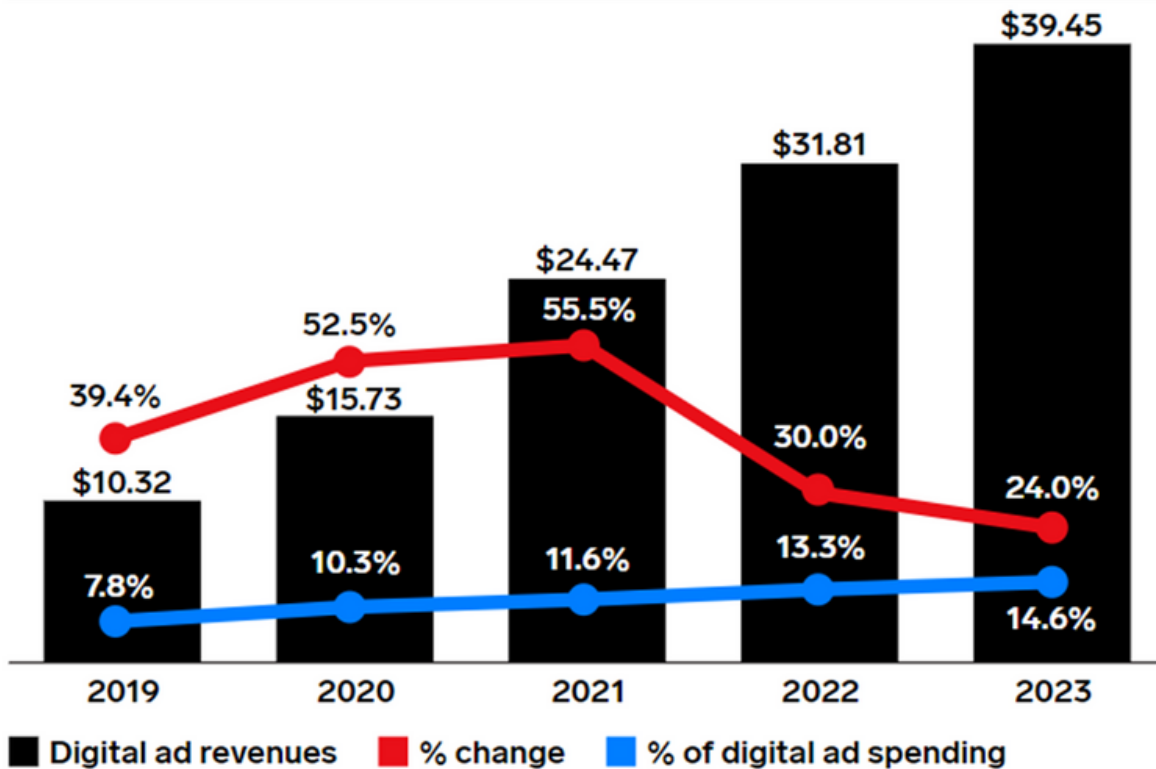


From 2014 until 2022 Facebook (Meta) and Google have controlled 50%+ of the digital ad space. That's now dipped below 50% because of a host of new entrants. Uber, TikTok and most relevant to CBD, Amazon have taken a real bite out of Google's core revenue stream.

A new opportunity for cannabinoid companies – advertising on Google and Twitter

By Marc Brandl

US Net Digital Ad Revenues at Amazon, 2019-2023 billions, % change, and % of digital ad spending



Note: includes advertising that appears on desktop and laptop computers as well as mobile phones, tablets, and other internet-connected devices, and includes all the various formats of advertising on those platforms; net ad revenues after companies pay traffic acquisition costs (TAC) to partner sites

Source: eMarketer, Oct 2021

270542


eMarketer | InsiderIntelligence.com

and unlike Google - Amazon has allowed CBD topicals companies to advertise some years.

Slippery slope?

It's unlikely that supplements and food additives containing CBD as an active ingredient and other CBD products will soon be able to advertise on Google or any other major digital ad platform. They will likely need the cover of guidance from the FDA before they loosen their ad ban further. And as we've seen the FDA is unlikely to act on its own without direction from Congress. The big question is will other online advertising platforms such as Uber follow in Twitter's path as it seeks to establish itself as a major player in the advertising and cannabis delivery space.


SECTOR ANALYSIS*

	INDICES	3 MONTH%	6 MONTH %
	S&P 500	2.08%	10.75%
	DOW JONES	-0.37%	-0.49%
	NASDAQ	2.32%	-8.20%
	GLOBAL CANNABIS	-23.83%	-36.61%
	AMERICAN CANNABIS	-33.73%	-33.90%



“Yes, the entire MSO sector is generally inexpensive, but we suggest investors buy the larger and more established names, with above average financial and operational metrics,” Pablo Zuanic of Cantor Fitzgerald

*This text expresses the sole opinion of the writer. The thoughts expressed are independently formed and the writer is not compensated by any third party.

	SECTOR	3 MONTH	6 MONTH
	HEALTHCARE	0.36%	20.58%
	TECHNOLOGY SECTOR	6.28%	-7.13%
	INDUSTRIALS	5.20%	3.32%
	FINANCIALS	5.56%	4.95%
	CONSUMER CYCLICAL	4.17%	-6.84%
	CONSUMER NON-CYCLICAL	0.51%	-0.36%
	BASIC	6.28%	9.00%
	ENERGY	-0.64%	12.70%
	UTILITIES	0.02%	-9.99%
	ALTERNATIVE HARVEST ETF (MJ)	-28.88%	-35.84%
	MULTI-STATE OPERATORS (MSOS)	-44.17%	-44.21%

*Information retrieved from NCV and E*trade.

The Cannabis Flight Study

Although Cannabis is legal and readily accessible in many US and some international jurisdictions, much of the industry maintains some of its practices from traditional markets. However, consumers have entered a new market of Cannabis products and brands. As they grow comfortable and familiar with the commodity, questions arise about the quality and effect of the different plant cultivars.

"Which is best for pain?"

"What are the attributes of quality Cannabis?"

Part of the problem is that Cannabis plant names, often a major factor in consumer purchasing decisions, have little empirical relevance to effect. The traditional industry's Sativa, Indica, and Hybrid categories are proven as poor designations of effect. Brands, cultivators, and retail stores might invent or change product names if sales are not adequate. Scientific analysis reveals a weak association between these older categories and the plant's terpenoids. As well, new plants with minor cannabinoids are being introduced into the market without objective characterization and categorization. Cannabis contains hundreds of potentially active or interactive phyto-constituents that could be incorporated into an appropriate categorization algorithm.

Initially, botanists categorized Cannabis by dominant phytocannabinoids, Δ^9 THC (tetrahydrocannabinol) and CBD (cannabidiol), using Type I (THC dominant), Type II (Equivalent THC and CBD), and Type III (CBD dominant) to distinguish plant types. Yet, very little research

Terp Tag Tech

What is it?

- An objective categorization framework for classifying Cannabis flower
- A system for setting up contrasts to investigate effects outcomes
- A customer engagement tool
- An inventory management solution

Terp Tag Tech Explained:

Terp Tag Tech is a way to categorize Cannabis flower. It helps us compare different cultivars (strains) and learn how they might affect people. It's also a tool to help customers choose what they want and to manage store inventory.

The Cannabis Flight Study

has evaluated the multiple combinations of terpenes or how they might affect the consumer. Terpenes, a component of the essential oil of the Cannabis flower, are well known to have medicinal benefits and toxicities in isolated forms. However, studying the combined synergistic effect of multiple plant constituents is uncommon to Cannabis research. As well, multi-agent pharmaceutical development is an untapped paradigm. In that regard, Cannabis blazes a trail to the potential discovery of new drug combinations or classes. Whether it is a consumer product good (CPG) or pharmaceutical drug, the process best starts by creating an index of cultivar subtypes that aids current consumers in their purchasing decisions.

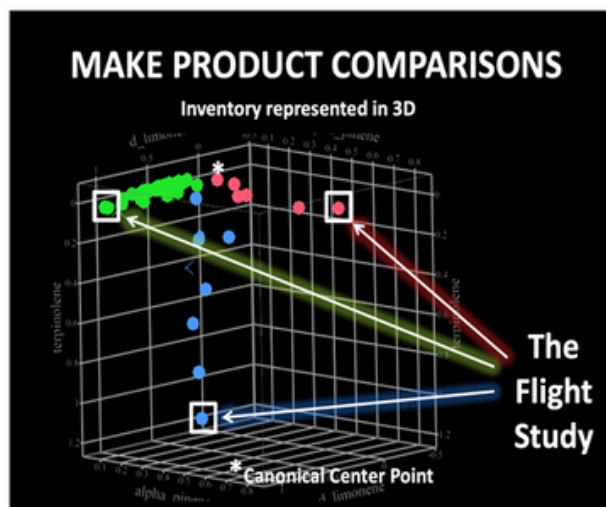
Terp Tag Technology

[CESC](#) introduces Terp Tag Technology, a process using artificial intelligence (AI) to map the multiple constituents in Cannabis. The work began by sourcing data from Cannabis prevalent communities mapping their aroma descriptors to terpene profiles. The results establish an algorithm that incorporates the content and ratio of both cannabinoids and terpenoids. Terp Tag Technology is an objective categorization of classifying Cannabis flower subtypes. The algorithm is dynamic, adapting to new hybrids and characteristic effects. “By putting a stake in the sand, we are able to compare different cultivars and learn how they might affect people,” states Dr. John Abrams, [CESC's](#) Chief Science Officer.

The Cannabis Flight Study

The wine industry incorporates a “flight” when marketing different varieties. This concept, commonly presented to the consumer at wineries and tastings, involves a comparison sampling of different types of wine. The concept also works well as an empirical real time trial of complex multi-agent Cannabis cultivars. All consumers are not alike. Some seek products that provide energy, focus, or creativity. Others require products to relieve pain or induce sleep. Finally, others like to vary their experience depending on the occasion.

The Cannabis Flight Study will be launched at San Francisco's [Flore Dispensary](#), the



The Cannabis Flight Study

historic epicenter of the Cannabis industry's resurgence. Flore's Cannabis flower inventory is tagged using Terp Tag Technology. The store is preparing to offer Cannabis Flights to participants interested in providing their feedback. Responses are generated on several experiential categories, including aroma, altered effects, relaxed-energetic effects, head-body effects, and specified mood affect defined as happy, euphoric, aroused, focused, and creative. "Combining The Cannabis Flight Study with our ongoing Dosing Project initiative contributes to a better understanding of both recreational and medicinal indications," states Dr. Jean Talleyrand, [CESC's](#) Chief Medical Officer.

The Cannabis industry is transitioning from awareness and acceptance to quality assurance. Terp Tag Technology, as an objective measure of quality, comprises methodology that assigns Cannabis flowers to categories based on relative as well as absolute terpene content. Terp Tag AI is dynamic yet identifies consistent reliable products. Quality attributes such as aroma, taste, and effect are correlated with terpenes. Terp Tagging Cannabis flowers assures consumers get what they expect. As a tool, Terp Tags manage product lines for cultivation, distribution, and retail by ensuring the industry maintains an appropriately broad range of cultivar types. Contact us at info@thecesc.org to learn how Terp Tag Technology may benefit your enterprise.



Terp Tags

Dominant Terpene Algorithm

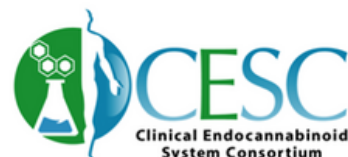


Quality Assurance With Color



Powered by AI

INFO@THECESC.ORG



HOT IN THE NEWS

March 2023

1

Bill would create path to legalize recreational marijuana in Texas

2

Colorado Governor Promotes State's First-Ever Marijuana Vending Machine

3

Nebraska Senators Hold Hearings On Revised Medical Marijuana Bill And Recreational Legalization Proposals

4

White House Touts Biden's Marijuana Pardons In Preview Of State Of The Union Speech

5

Kansas Senators File New Medical Marijuana Legalization Bill For 2023

6

Marijuana reform faces 'more challenging' environment in Congress under GOP

7

Missouri tops \$12.6 million on opening weekend of adult-use marijuana sales



DISCLAIMER

The information contained in this document should not be relied on as the basis for any decision or action. It is general advice only and you should exercise your own independent skill and judgment. In some cases, the material in this document may incorporate or summarize information or recommendations of third parties or comprise materials contributed by third parties (*'third party material'*). Such third-party material is assembled in good faith but does not necessarily reflect the considered views of Eighth Revolution or indicate a commitment to a particular course of action.

We make every effort to ensure that links included in this document are kept up-to-date. The accuracy of the links is dependent upon the owners of those sites letting us know of any changes. If you find a link that does not work, please contact us by emailing info@8threv.com.

To the extent permitted by law, Eighth Revolution and its employees and agents are not liable for any loss or damage arising from the use of, or reliance on, the material contained in this document whether or not caused by a negligent act or omission.

You obtain access to this document at your own risk, and Eighth Revolution accepts no responsibility for any interference, loss, damage, or disruption to your own computer system which arises in connection with your use of the document or any linked website. You must take your own precautions to ensure that the process which you employ to obtain access to this document does not expose you to the risk of viruses, malicious computer code, or other forms of interference which may damage your own computer system.

info@8threv.com
(516) 653-2006
www.eighthrevolution.com