

Marijuana Business Magazine®

\$12.95

Insights for cannabis executives, investors & entrepreneurs

VOL 7 • ISSUE 4 • April 2020

COMPENSATION CONTEMPLATION

Setting salaries and recruiting
the best North American
cannabis job candidates in 2020



Hemp Food Makers Tackle
Obstacles to Enter Market

Finding and Joining the Right
Cannabis Industry Trade Group

Getting the FDA to Approve
Your Cannabis Study

Legalizing Smokable Flower
Changed the Florida Market

Your verified source.

✔ Cannabis & Hemp Leads ✔ CRM ✔ Email Campaigns ✔ Domestic & International

Connect with more than 85,000 licensed cannabis and hemp operations across 45 states and 18 international markets, including Canada

POWERING OVER 1,000 CLIENTS OF ALL VARIETIES

Software



Cultivation & Manufacturing



Professional Services



Retail, Paraphernalia & Packaging



Media & Industry Organizations



cannabizmedia.com 203-653-7975

cannabiz media



CANAPA™

The global leader in primary, secondary & end of line packaging automation.



COMPLETE AUTOMATION



Weighing



Filling



Liquid



Pre-Roll



Bagging



Wrapping



Capping



Labeling



Cartoning



Erecting



Packing



Palletizing

Visit an **XPERIENCE™** near you!
CENTER

SEE LIVE DEMONSTRATIONS



CANAPASOLUTIONS.COM

1.833.4CANAPA | INFO@CANAPASOLUTIONS.COM

TABLE OF CONTENTS April

Marijuana Business Magazine
April 2020 • Volume 7 • Issue 4

FEATURES

38

COMPENSATION CONTEMPLATION

Setting salaries and recruiting the best North American cannabis job candidates in 2020.

64

TOOLS OF THE TRADE

Cannabis trade groups can advance the interests of the industry and individual companies, but firms must be selective about joining.

76

RESEARCH PROJECT

How two companies got medical cannabis studies approved by the FDA.

86

BEYOND IMPOSSIBLE

Sourcing local ingredients and getting shelf space remain challenges for hemp-based food producers.

Victory Hemp purchases hempseeds from farmers and processes them into products such as protein isolate, pictured. To learn more about how companies are using hemp to create food items, turn to page 86. *Courtesy Photo*



On Our Cover

From the federal legalization of hemp production to the roller-coaster stock market, the cannabis industry has seen fluctuations in hiring and salaries during the past year.

12
PACKAGING CORNER
Makers of DaVinci vaporizers want packaging to be something consumers keep.

16
TRENDS & HOT TOPICS
Choosing to focus on the wrong KPIs can break your business.

20
INVESTOR INTELLIGENCE SNAPSHOT
Multistate operators capitalize on smokable flower sales as Trulieve continues to dominate the Florida cannabis market.

96
BEST PRACTICES IN EXTRACTION
Extractors can assist cultivators in creating high-quality raw materials.

104
QUESTION OF THE MONTH
What is your intellectual property strategy and are you pursuing any patents?

6
From the Editor

8
By the Numbers

10
Five Questions with David Farris

14
Hemp Notebook

18
Money Matters

22
Company News

28
Industry Developments

92
Retail Business Strategies

100
Industry Players

106
Market at a Glance

110
Our Advertisers

112
Notable Quotes

Magazine feedback

We are here to help the multibillion-dollar cannabis industry prosper. Let us know how we can serve you. Email us at magazine@mjbizdaily.com with your thoughts, suggestions and any other feedback about the magazine and the stories we cover.

On the site

To get the cannabis industry's latest news and analysis, visit us at mjbizdaily.com and hempindustrydaily.com.

Find us on social media



@MMJBizDaily



@mjbizdaily



@MJBizDaily

Save the Dates

MJBizConNEXT

AUGUST 19-20 | NEW ORLEANS

THE
Hemp Industry Daily
CONFERENCE

AUGUST 19-20 | NEW ORLEANS

Marijuana Business MJBizCon

DECEMBER 2-4, 2020 | LAS VEGAS

Marijuana Business Magazine®

Chief Executive Officer	Chris Walsh
VP of Publishing	Pamela Moore PamM@MJBizDaily.com
Editorial Director	Roger Fillion RogerF@MJBizDaily.com
Magazine Editor	Kate Lavin KateL@MJBizDaily.com
Senior Editor	Kevin Huhn KevinH@MJBizDaily.com
Staff Writers	Laura Drotleff LauraD@MJBizDaily.com Margaret Jackson MargaretJ@MJBizDaily.com Matt Lamers MattL@MJBizDaily.com Kristen Nichols KristenN@MJBizDaily.com Alfredo Pascual AlfredoP@MJBizDaily.com Omar Sacirbey OmarS@MJBizDaily.com Bart Schaneman BartS@MJBizDaily.com John Schroyer JohnS@MJBizDaily.com Jeff Smith JeffS@MJBizDaily.com Nick Thomas NickT@MJBizDaily.com
Data and Charts	Maggie Cowee MaggieC@MJBizDaily.com
Art	Christa Madrid ChristaM@MJBizDaily.com
Contributors	Celene Adams, Anna Robaton-Winthrop
VP of Sales	Mary Pemberton MaryP@MJBizDaily.com
Sales Team	David Braswell DavidB@MJBizDaily.com Melanie Briscoe MelanieB@MJBizDaily.com Savannah Brown SavannahB@MJBizDaily.com Rachel Grundner RachelG@MJBizDaily.com Molly McElwain MollyM@MJBizDaily.com Brooke Moore BrookeM@MJBizDaily.com Tabitha Pazzali TabithaP@MJBizDaily.com Alex Sutliff AlexS@MJBizDaily.com Angela Toney AngelaT@MJBizDaily.com
Customer Service	CustomerService@MJBizDaily.com (720) 213-5992, ext. 1
Co-founders	Cassandra Farrington and Anne Holland

To start/change/cancel your subscription, visit MJBizMagazine.com, call us at (720) 213-5992, ext. 1 or email us at CustomerService@MJBizDaily.com.

Marijuana Business Magazine subscriptions are currently free to qualified U.S. cannabis business professionals and investors age 21 and over only.

To advertise with us, email Sales@MJBizDaily.com or call us at (720) 213-5992, ext. 2.

Marijuana Business Magazine, Volume 7, Issue 4, April 2020

ISSN 2376-7375 (print); ISSN 2376-7391 (online)

Marijuana Business Magazine is currently published 10 times per year by *Marijuana Business Daily*™, a division of Anne Holland Ventures Inc.

POSTMASTER: Please send address changes to: Marijuana Business Daily, 3900 S. Wadsworth Blvd., Suite 100, Denver, CO 80235.

Copyright 2011-2020 by *Marijuana Business Daily*, a division of Anne Holland Ventures Inc. All rights reserved. Materials may not be reproduced in whole or in part without written permission. For reprints of any article, please contact Customer Service.

MJBizMagazine.com

LEDs for **Compact Plants**

With High **THC/CBD** Outputs



UV-A Enriched Spectrum for Increased Cannabinoid Production



GACP/GMP Facility Suitable

RX400 Solray™

Sea of Green.



BX120 Solray™

Indoor. Multilayer.



31%
more
compact plants

16%
more total
cannabinoid
yield

28%
more
flowers

...than with **HPS**.

7%
more
compact plants

6%
more total
cannabinoid
yield

4%
more
THC

...than with **competitor's LEDs**.

Get a **FREE** Light Plan Today!



sales@valoya.com



www.valoya.com

The Only Constant Is Change

A lot has transpired in the year since Marijuana Business Magazine came out with its first salary and hiring issue. The value of cannabis stocks has tumbled, the industrial hemp market has taken off—only to be brought back to earth by falling CBD prices—and the poaching of executives from consumer packaged goods companies has transitioned from noteworthy to commonplace.

All this was remarkable on its own. But shortly before I sat down to write this letter, cannabis retailers in San Francisco were ordered to close their doors due to coronavirus. (Mayor London Breed later decided the shops could stay open, citing marijuana's medical value.)

It could be months or years before we see the full effect of coronavirus on the global economy in general and the North American cannabis industry in particular. But in putting together this issue, we've collected business advice to help marijuana and hemp companies make educated decisions in times of growth as well as times of crisis.

Recruiting in 2020

Despite a rash of industry layoffs that began in fall 2019 and continued into the spring, the continuing legalization of markets for cannabis sales all but ensures that the number of jobs in this sector will continue to increase for years to come. When developing the cover package, we decided to evaluate:

- How hiring and salaries have changed in the past year.
- Whether stock options remain a compelling incentive when recruiting talent.
- How the legalization of hemp changed hiring and salaries in that sector.
- The state of recruiting in Canada.
- Whether executives from the consumer packaged goods sector are the best fit for the burgeoning cannabis industry right now.
- Specific jobs and cannabis industry sectors that are hot—plus those that are not.

For a complete overview on the state of hiring and compensation in the United States and Canada, turn to page 38.

In These Pages

Elsewhere in this issue, staff writer Omar Sacirbey spoke with two companies that secured approval from the U.S. Food and Drug Administration to study the effects of cannabis on humans, and his sources spoke candidly about what is required to get the blessing of this federal

agency. Hint: It's beneficial to partner with faculty from a well-respected university and offer full transparency into the process. Learn more on page 76.

You'll also find information about how to evaluate whether cannabis trade organizations are worthy of your time, dues and—in some cases—reputation. (See page 64.)

Intrigued by the success of the plant-based Beyond Burger, veteran reporter Anna Robaton-Winthrop sought out producers of hemp-based foods to learn what roadblocks they encountered in bringing products to market. (See page 86.) She learned that emphasizing the local nature of hemp-based foods can help manufacturers avoid slotting fees grocers often require in exchange for taking a chance on shelving new products.

Looking Ahead

This issue also contains analysis of how the launch of smokable marijuana upset the top players in Florida's bustling medical marijuana market, plus interviews with a retail executive and an ETF manager about how in-person sales and investing are likely to unfold in the years to come.

From the entire staff at Marijuana Business Magazine, we wish you the best of luck remaining healthy, safe and well-staffed in the coming months.



Kate Lavin
Marijuana
Business
Magazine
Editor



MINIMIZE GROW COSTS TODAY FOR THE COMPETITION OF TOMORROW



+150 PROJECTS • 2,000,000 FT² • 19 STATES + CANADA

With cannabis markets becoming more competitive, wholesale prices are falling. Implementing efficient grow practices with a Nexus Hybrid Greenhouse ensures operational cost savings to survive and thrive in the cannabis market.



LEADERS IN GREENHOUSE SYSTEMS INTEGRATION

WWW.NEXUSCANN.COM • INFO@NEXUSCANN.COM

720.330.0830



A PART OF **atkore** INTERNATIONAL

LEADER IN GREENHOUSE SYSTEMS INTEGRATION

- **CONSULTING**
Experienced teams create facilities from application to harvest
- **DESIGN**
Hybrid, semi-sealed and fully-sealed greenhouses with various cooling, heating, and dehumidification options
- **ENGINEERING**
In-house licensed engineers design structures specific to your location
- **MANUFACTURING**
Four manufacturing facilities for shorter lead times to meet your schedule
- **CONSTRUCTION**
Turnkey services include installation, commissioning, and maintenance

The Marijuana Employment Landscape

It's no secret that North American marijuana firms have faced struggles in recent months—due in part to a tightening of capital and slower-than-expected rollout of new legal markets, including California's behemoth recreational scheme. Some companies have been forced to enact significant layoffs and reorganization at the executive level to trim operations to the point of maximum efficiency.

But while this restructuring occurs, cannabis employers continue to add jobs in select markets—particularly in states with developing medical and recreational programs. *Marijuana Business Daily* estimates overall full-time job additions of nearly 40% in 2020.



132,037

Estimated number of marijuana jobs in the top five U.S. marijuana markets: California (39,804), Colorado (34,705), Washington state (23,756), Oregon (18,274) and Florida (15,498). These five states are home to about half of all U.S. marijuana jobs.

Source: Leafly

66%

Percentage of female-identifying employees in Pennsylvania's marijuana industry in 2019—the greatest proportion among states surveyed.

Source: *Vangst Women in Cannabis* report

38.5%

Projected increase in the number of full-time U.S. marijuana jobs between 2019 and 2020. There were an estimated 175,000-215,000 jobs in 2019, and that figure is expected to increase to 245,000-295,000 in 2020.

Source: 2019 *Marijuana Business Factbook*

3,000-4,000

Estimated number of marijuana jobs anticipated to be added in Illinois as the state's new recreational market develops in 2020. That's upwards of a 65% increase over the 6,156 marijuana jobs in the state as of January 2020.

Source: *Crain's Chicago Business*, Leafly

22%

Average workforce reduction among nine companies that announced layoffs in recent months: CannaCraft (16% reduction), CannTrust (20%), Eaze (20%), FlowKana (20%), Grupo Flor (35%), Leafly (18%), MedMen Enterprises (20%), Pax Labs (25%) and Weedmaps (25%).

Source: *Marijuana Business Daily*, *Marijuana Business Magazine*



INTRODUCING
THE ALL NEW



G I O

.5 GRAM CERAMIC
+ WICKLESS
CARTRIDGES

REDESIGNED TECHNOLOGY



THE REVOLUTIONARY
CONCENTRATE VAPORIZER
CONNECTS TO ANY WATER PIECE



CONNECT

1 GRAM
CERAMIC TANKS

AVAILABLE NOW



greenlane

GNLN.COM
LICENSED BUSINESSES CALL 310.312.4980
NOT FOR SALE TO MINORS

The Future of Cannabis Retail

Planet 13's vice president of sales and marketing talks about consumer preferences, technology and where the sector is headed

By Margaret Jackson



As Planet 13 Holdings' vice president of sales and marketing, David Farris leads the company's creative process. He spearheads all design and conceptual projects related to product displays and branding for both the company's Las Vegas superstore and its house of brands. Plus, he works on projects ranging from product packaging to web development and design.

Farris, a graduate of the University of Nevada, Reno, joined Planet 13 in 2016. The Nevada-based company serves about 2,000 customers per day and recently expanded its superstore to include a 15,000-square-foot, customer-facing production facility that has increased its manufacturing capacity tenfold. The expansion also features a coffee shop, pizzeria and event space.

Marijuana Business Magazine spoke with Farris to get his opinions about the future of retail in the cannabis industry.

What changes do you expect to see in terms of how customers purchase cannabis?

It's going to become very experiential. As we're looking at the future of retail, we're seeing more interactions with the customer and making it a special experience.

We wanted to create a destination where it's more than, "I want to stop at the store and do a transaction." Customers can see products like gummies, chocolates and vape pens made. ... We try to focus on becoming a destination and having people stay here for hours.

Where do you see consumer preferences going?

Consumers are really looking for products based on their environment. We're seeing a lot of seasonal changes around edibles. There are a lot of new consumers who are finally accepting cannabis.

The path historically has always been that flower is the great introduction, but people are starting to expand from that. We're seeing more vapes and concentrates and edibles. We've launched our concentrates and gummies, and we're getting ready

to launch sparkling water beverages. We look at what consumers want that they're not already getting.

What role will online sales and delivery play?

They're huge. We understand that we're focused on customers who want to experience things, but local customers want to be on the couch and get products delivered straight to their door. In the past month, we've seen a spike in online orders and delivery orders. We cannot deliver to the gaming corridor—that limits our territory. We use delivery and online ordering as a platform for our local and medical community.


What kind of technology would be valuable at cannabis retailers that doesn't already exist?

There's a lot of innovation coming out. At the end of the day, functionality is the hardest thing to find. Right now, we see huge value when we talk about menus and the ordering system and making sure that is as accurate and streamlined as possible.

Over the past six months to a year, we've been able to update the THC percentage on the menu. You can go to our website and see THC percentages and photos, all in real-time inventory. We're always giving people feedback on how they can improve and how we can work better together.

How do you see packaging evolving to support retail?

A lot of the packaging focus in retail is built around where to position the product in the store. The unique thing about dispensaries is there's not standardization yet. There's not a specific way people are doing things. Now, we're starting to see more functionality take place.

Childproof rules are becoming the foundation in every state. There's a lot of innovation and a move to keep it clean, modern, sleek and small. It's already evolved. 



Margaret Jackson covers retail for Marijuana Business Magazine. You can reach her at margaretj@mjbizdaily.com.



HiLUX GRO™

professional grade horticulture lamps

Professional growers will not use just any lamps to get results. They require specialty grade European-made lamps from USHIO to maximize their growth and profits.

Don't wait! Upgrade your system today with USHIO Hilux Gro™ professional-grade HPS, MH, and CMH lamp types.



For optimal plant growth, also check out our E-Water System.

NaOCl^{clean}®

Electrolyzed Water Treatment System

Treat and Prevent Plant Diseases without Damaging the Environment.



NEW 600W DOUBLE-ENDED HPS & MH

USHIO

800.838.7446 | www.ushio.com/hiluxgro

A Work of Art

Makers of DaVinci vaporizers want packaging to be something consumers keep

DaVinci lead designer Jason Charron started working on packaging for the DaVinci IQ2 dual-use vaporizer the day he was hired—eight months before the product launched. He looked to wine and liquor packaging for inspiration.

“We wanted to make it so nice that people want to keep it,” Charron said.

What message was DaVinci trying to send with this packaging? Las Vegas-based DaVinci is selling a sophisticated vaporizer that it wants people to remember, so it needed beautiful packaging to complement the high-end product. The bright orange box has gull-wing doors similar to a DeLorean automobile and a drawer on the bottom to hold vaporizer accessories.

“Leonardo DaVinci was known for puzzles, art and science,” DaVinci Marketing Manager Tanner Jourdian said. “The (IQ2) packaging is an art piece in and of itself.”

What measures does DaVinci take to make packaging sustainable? DaVinci reviews all materials to ensure that Shenzhen Senlarry Packaging, the factory in China where the boxes are made, doesn’t use any harmful substances. The box is designed to be kept rather than discarded so it doesn’t enter the waste stream.

What problems came up when creating this design? The original packaging design did not secure the vaporizer in the box.

DAVINCI	
Founded:	2012
Market:	Nationwide
Products:	Vaporizers and accessories
Price:	\$119-\$295
Packaging Designers:	Lead designer Jason Charron (box); Marketing Manager Tanner Jourdian (graphic design)

“It was just floating there,” Charron said. “If it was going to be shipped and thrown around, most likely it would have shown up broken.”

Some early versions solved the floating-vaporizer problem but made it too difficult for consumers to remove the product from the box.

“We considered scrapping the whole design because we couldn’t figure out a good way to make it ship from China without damaging the unit,” Charron said. “We came up with foam inserts (with two small magnets) in the top and bottom, and it keeps it really snug. It was more secure to ship over, and we went ahead with the design. (The magnets) are very small, they’re not expensive, and (the device) snaps in there.” MBM

Packaging for the DaVinci IQ2 includes gull-wing doors and an accessories drawer. *Courtesy Photos*





Learn how Urban Wellness converted from HPS to Mammoth LED's to increase their Yields, THC and reduce their production cost + carbon footprint at www.mammothlighting.com

NEW Mammoth UV Series

Eliminate Powdery Mildew and Go Chemical Free in 2020

- 10 bar with 2 bars of independent, controllable UVA and UVB diodes - for targeted exposure
- Academic studies have shown UVB to can reduce powdery mildew by up to 99% on plants
- UV radiation can be effective for controlling insect populations
- UV radiation can increase trichome density and content by 28%
- UV wavelengths can enhance the color, flavor and smell of plants



MAMMOTH

Commercial Series

GOT UV?

Hurry Up and Wait

Hemp proves that national legalization brings enormous red tape and bureaucracy

The ink wasn't dry on the law that legalized hemp nationwide before entrepreneurs started making plans to go global, hoping to see their hemp products on countless store shelves.

Now, some of those hemp entrepreneurs are experiencing the painful side of being legal. The police might not be coming anymore for folks growing and selling hemp, but law enforcement has been replaced by bureaucrats and red tape.

The reality of being legal but highly regulated by slow-moving federal agencies is enough to make some businesses pine for the days when regulators beyond state borders had no say over hemp.

False Starts

The delays started right away. Back in 2018, when the U.S. Congress changed the Controlled Substances Act to make low-THC cannabis legal, federal food and drug regulators waited less than a day to remind celebrating hemp entrepreneurs that the U.S. Food and Drug Administration held sway over the use of hemp extracts in commercial products—and planned to exert its influence.

Fair enough, many of them figured, anticipating that within a few months, the FDA would issue rules about how to make and sell hemp products to fill store shelves. Pent-up demand for CBD products led many of the nation's largest retailers to barrel forward in bringing products to market, assuming FDA guidelines were imminent.

The hemp industry responded, setting off a feverish few months of expanding production and accepting millions from investors to scale their businesses and get ready to supply a global market for hemp products.

And then ... nothing happened. The FDA took testimony, vowed to review the evidence and has yet to clear the way for mass-market, over-the-counter ingestible CBD. Pressure from state governments and even Congress members who wrote the hemp-legalization law hasn't helped.

That's just one frustrating area of delay for hemp entrepreneurs. Consider:

- The U.S. Department of Agriculture took 10 months—an entire growing season—to draft some rules for cultivating the newly legal commodity.
- After those rules came out, the USDA said it would press the pause button on some of the regulations to give farmers more flexibility. (Hemp entrepreneurs are seeing why colleagues in other commodities cynically dub the agency the “U-S-Dee-Lay” because of how slow-moving USDA actions can be.)
- Congress isn't rushing to help, either, as other priorities take center stage in an election year in a divided branch of government.

Bureaucracy and red tape are starting to lead to business casualties in the hemp sector. Investors who were promised big returns in just a couple of years are finding that regulatory delays mean hemp's potential has yet to be realized.

Farmers are feeling the delays, too, frustrated that they must accept existing federal rules for months or years before they can hope to see regulations that are friendlier to businesses.

Lessons for Marijuana

I completely understand the frustration. Hemp entrepreneurs without bottomless cash reserves are finding

they can't afford to wait out the bureaucracy.

But there's an important lesson the industry can take from hemp's bureaucratic challenges, and that is: Don't expect change to come quickly, even if the law changes overnight.

Any frustrations that marijuana producers have with slow-moving state regulators are almost certain to get worse when the feds are in charge.

So I hope everyone in cannabis is taking note of the red tape affecting hemp cultivators, processors and retailers. Change is coming, but when it does, make sure your business plans set realistic expectations for the cost of regulatory delays.

We all know the federal government will eventually make it legal to grow and sell marijuana. But take it from hemp: They're not going to make it easy. MBM

Kristen Nichols is editor of Hemp Industry Daily. Reach out at kristen.nichols@hempindustrydaily.com



Whatever Your Processing Range & Desired End Product,
Precision® Offers a Solution

PRECISION

EXTRACTION SOLUTIONS



**Extraction
Equipment**



**Lab Planning
& Design**



**Industrial
Solutions**



**Installation
& Training**



**Tech
Support**

Contact a Precision Extraction Expert Today!

(855) 420-0020

PrecisionExtraction.com

[in](#) [@](#) [f](#) [@precisionextraction](#)

Choosing the Wrong KPIs Can Break Your Business

Key performance indicators represent milestone targets for your business, so choosing the right KPIs can be paramount to achieving a level of corporate success.

But because KPIs can influence how management spends its time, short-term KPIs can come at a cost—an opportunity cost.

Work Backward to Determine KPIs

Michael Armstrong, business professor at Brock University in St. Catharines, Ontario, said the core goal for most cannabis businesses should be to sell legal products that are at least as good as what the illicit market sells, at prices at least as low as what the underground market charges.

Among other things, Armstrong says this implies being able to make a profit with dry cannabis priced at CA\$5 per gram, including taxes, while selling products that make customers happy.

Then, he said, work backward from that to determine KPIs, such as:

- **Profit:** Without a profit, you won't stay in business.
- **Consumer satisfaction:** Do buyers like—and hopefully love—your products?
- **Production cost:** From planting clones to shipping finished product, what's the all-in cost per gram?

What managers do not spend their time on is just as important as what they do spend their time doing. That especially matters in Canada's hyper-competitive cannabis industry, where advertising is banned and

most legal businesses sell the same kinds of products.

Choose the wrong KPIs, and a company risks sending the most influential people in the business down the wrong path for most of the year.

It isn't a stretch to assume the behavior of executives is tied, to a certain degree, to the KPIs used to award their compensation—especially when that payout can be in the millions of dollars. So how your KPIs are weighted can matter just as much as the actual KPIs themselves.

Resetting Priorities

Let's look at one example: A large Canadian cannabis company discloses the KPIs used to measure its executives' success in meeting corporate objectives. After missing numerous revenue targets, replacing its CEO and mothballing expansive facilities, you could say the company is going through a rough patch.

What went wrong?

The company uses 19 KPIs to assess individual executive performance and to measure overall corporate objectives. Arguably the most important KPIs for any business are those directly tied to revenue, costs and profit.

But becoming EBITA positive—the core of any business—was given a weight of only 2.08% out of 100%. Hitting a gross profit margin of 50% was given the same weight. A specific target was established for revenue, but the company weighted that KPI at only 2.08%.

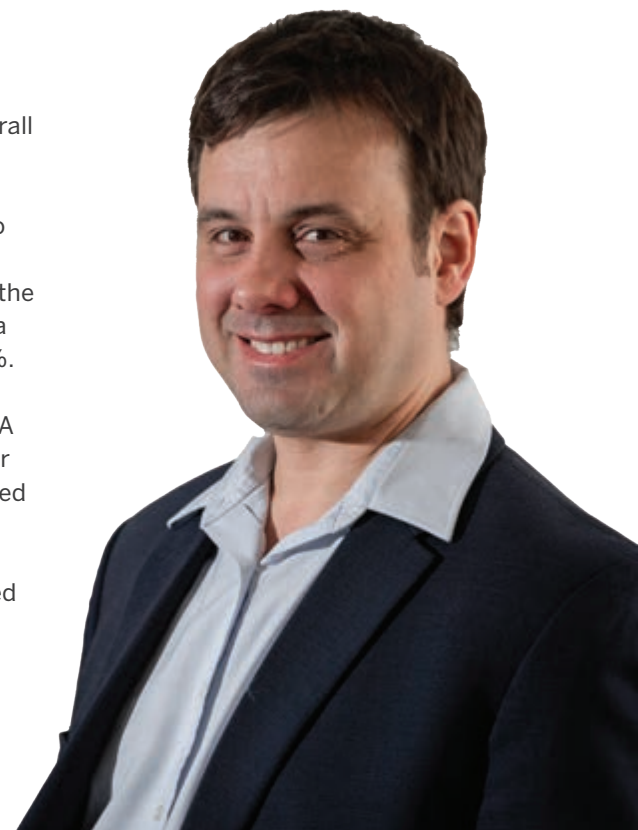
That means factors other than profitability and revenue accounted for 93.76% of the weight this company used to measure the

success of its corporate objectives. And no KPIs were directly associated with quality. Today the company—once the largest cannabis business in the world—stands on very thin ice.

As more companies go public and shareholders increasingly depend on solid management teams, it's time for cannabis companies to heed Armstrong's advice.

Rather than set a dozen arbitrary KPIs and reward executives for focusing on goals that don't move the business forward, companies should double down on KPIs that reflect business fundamentals. Only then will they please shareholders and create long-term stability. MBM

Matt Lamers covers international cannabis markets for Marijuana Business Magazine. You can reach him at mattl@mjbizdaily.com.



ARE THE GENERIC LIGHTERS YOU SELL PUTTING YOU AT RISK?



Not a BIC® Lighter



Consistent flame height



Resistance to elevated temperature



Drop-resistant from a height of 5 feet



Flame extinguishes within 2 seconds



Safe volumetric displacement



BIC®. SAFETY YOU CAN COUNT ON.

BIC will never compromise on the safety and quality of its lighters. Every day, BIC produces more than 7 million lighters worldwide and every lighter undergoes more than 50 separate, automatic quality checks.

Trust BIC for safe, high-quality, reliable lighters.

VISIT BICLIGHTER.COM



America's #1 Lighter*



BIC® Full-Size Lighter Only



*Source: IRI C-MULO Vol Sales of Pocket for the 52 weeks ending 12/29/2019

Macro Conditions Improve for Long-Term Investment

ETF manager says market correction is forcing discipline among cannabis management teams

Tim Seymour is the owner and manager of the New York-based Amplify Seymour Cannabis Exchange Traded Fund. The ETF, which has about \$7.5 million in assets, trades on the New York Stock Exchange under the ticker symbol CNBS. The fund, which launched July 23, 2019, currently contains 28 holdings. Under U.S. Securities and Exchange Commission regulations, Seymour's fund is able to invest only in federally legal companies, meaning that U.S. multistate operators remain off limits. Seymour also helps manage the JW Growth Fund, a cannabis hedge fund with assets of about \$300 million, and is a regular contributor to CNBC about the cannabis market.

How and why did you get into cannabis investing?

I spent 15 years in a hedge fund focused on emerging markets. I see the macro elements of investing in the cannabis sector as similar to emerging markets. It's not that I'm disinterested in the social and cultural aspects, but the legislative changes—both in the likes of California, Canada and Colorado, originally, but also now around the world—that is interesting. I started

a dialogue with producers, mainly through my work at CNBC, and people can see that I am meeting with companies, that I know the sector and that I have managed portfolios before.

Why do you remain positive about the cannabis industry in investing terms?

Raising money has been challenging for the past nine months—I would have preferred it if I had started the ETF fund in July of the previous year—but we are here to hopefully be thought leaders in the space. The macro conditions continue to get better and better.

While there is unlikely to be federal descheduling anytime soon, things are going better than could be expected in the United States. We have South Dakota and Missouri, and then there is the Northeast bloc: New York is trying to get its legislative act together. And then we have Illinois and Michigan, where things are going better than expected.

We actually have a better story than we did a year ago. Also, we know there isn't likely to be a debt crisis in the industry. The real issue is that there needs to be more leverage.

The macro conditions continue to get better and better. We actually have a better story than we did a year ago."

—Tim Seymour

Owner and manager of Amplify Seymour Cannabis Exchange Traded Fund



Has the market correction overall been what the industry needed?

The companies in this sector needed to have some rationalization. It's an easy argument to make that many companies were obscenely overvalued. There was mismanagement by companies, and valuations and assets were not grounded in reality, and so people overpaid for other assets. There needed to be discipline in the C-suite, and they got it. The entire industry is going through a 2.0 in terms of management teams.

What is the longer term outlook?

There are three obvious channels of investment: the recreational market, the medical channel that continues to grow, broaden and deepen with research and (possible) U.S. Food and Drug Administration approval. There is a massive medical science element that is still very interesting, and then there is the entire lifestyle, nutraceutical and experiential wellness element.

Some of the biggest companies in the world will come in whenever they are comfortable with the regulatory environment. This is a global marketplace; this really is

a consumption story that runs across all demographics and cultures and, eventually, this is going to become very sophisticated. Then it will be classic CPG investing with a focus on distribution, logistics and branding.

What types of investment do you focus on with your ETF?

Our ability to invest in the sector is still challenged by the limits of the federal dynamics. I am forced to build only a portfolio of names that I can invest in. We focus on the management teams, the balance sheet and how companies are positioned—particularly with regard to the United States.

Many ETFs are not actively managed and so are therefore not able to adjust to changes in market conditions. I may be biased, but I think you need to be active. MBM



Nick Thomas covers finance for Marijuana Business Magazine. You can reach him at nickt@mjbizdaily.com.

Solvent Recovery System



- Remove Solvent from CBD
- Production from 30-280+ GPH
- Stainless Steel Wetted Parts
- UL PLC controls
- Explosion Proof - Class 1 Div 1
- Easy Maintenance Design
- Small Footprint
- ROI Typically < 1 Year
- Food Grade Options Available



Biomass Drying System



- Typical Recovery of Solvent is 37%-52% by Weight
- Solvent Removed to Less Than 0.4% From Spent Biomass
- Eliminate Hazardous Waste Stream
- Low Maintenance- Constructed for Maximum Duty Cycles
- UL PLC Controls
- Explosion Proof-Class 1 Div 1
- Create Useable Biomass
- Screw Conveyor Feed and Discharge Available
- Production from 94-489+ Gallons

www.cbmills.com
Sales@cbmills.com
800-522-7343

MJ Firms Jockey for Florida Market Share

Multistate operators capitalize on smokable flower sales as Trulieve continues to dominate state market

Florida is a large and lucrative medical marijuana market with several multistate operators doing business in the state. Keeping track of state consumption trends and who is gaining or losing market share on store count, grams of THC, grams of CBD and ounces of smokable marijuana can provide solid investment insight.

Marijuana in smokable form is the most popular product for consuming THC in Florida, accounting for approximately 65% of total THC consumption. That share of the market has been steadily rising since Florida started reporting data on marijuana in smokable form in July 2019. Because smokable marijuana is the largest consumption category and continues to take market share in Florida, it's important to track the companies that are gaining or losing share within the category.

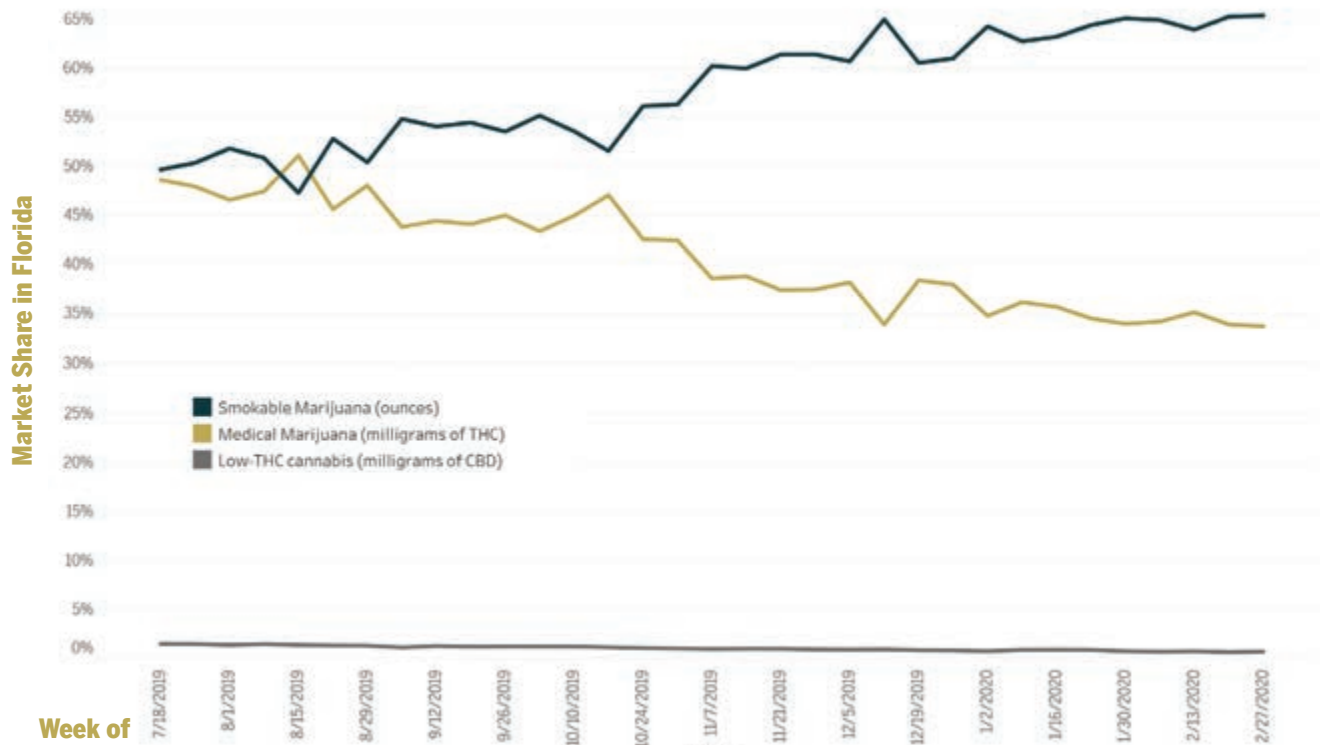
The table on page 21 shows monthly data for the companies with the top five market-share positions and how the share of each trended on a monthly basis from July 2019 through February 2020.

Trulieve is the clear market-share leader, but the company lost a bit of share between July 2019 and February 2020.

The biggest growth came from Parallel, which saw market share rise almost eightfold to 8.6% in February. AltMed Florida also has experienced impressive share gain during the same time period.

Conversely, Curaleaf and Liberty Health Sciences have been losing significant market share in the category. Curaleaf's market share fell nearly 71% between July 2019 and February 2020. Liberty Health Sciences' market share fell 32% during the same period. ^{MMB}

Florida Cannabis Market Share Over Time



Source: Florida Department of Health and MJBizDaily's Investor Intelligence
Copyright 2020 Marijuana Business Daily, a division of Anne Holland Ventures Inc.

Market Share for Marijuana in Smokable Form

	July 2019	August 2019	September 2019	October 2019	November 2019	December 2019	January 2020	February 2020
Trulieve	55.1%	47.6%	43.8%	40.9%	46.3%	49.1%	45.0%	52.6%
Liberty Health Sciences	14.1%	16.7%	18.6%	20.2%	14.9%	13.7%	14.0%	9.6%
Parallel (formerly Surtterra Wellness)	1.1%	2.3%	2.8%	2.0%	2.3%	5.3%	6.1%	8.6%
AltMed Florida (MuV)	4.4%	5.2%	6.9%	9.8%	8.4%	7.8%	9.0%	8.5%
Curaleaf	18.2%	17.4%	16.5%	11.7%	14.2%	10.1%	9.1%	5.3%

Source: Florida Department of Health and MJBizDaily's Investor Intelligence
Copyright 2020 Marijuana Business Daily, a division of Anne Holland Ventures Inc.



Craig Behnke is an equity research analyst for Investor Intelligence. Reach him at craigb@mjbizdaily.com



Mike Regan is an equity research analyst for Investor Intelligence. Reach him at miker@mjbizdaily.com.



MARIJUANA BUSINESS IS COLORADO BUSINESS and COCPA knows Colorado Business

EXPLORE OUR MARIJUANA BUSINESS PROGRAM OFFERINGS

These programs were developed with a focus on the CPA but are relevant to all audiences.

AUGUST 13, 2020

2020 Marijuana Business Symposium

The Marijuana Business Symposium offers insight into an emerging industry. Subjects like risk management, professional liability concerns, regulation, and business valuation take on unique characteristics because the marijuana business is growing rapidly.

First-time attendees may receive the member rate with coupon code

2020mbsmemberrate

ON-DEMAND

National Cannabis Overview: Our Observations of the Rapidly Changing and Growing Industry

MAJOR TOPICS

- Growth of the Industry
- CBD/Hemp and the Farm Bill
- Tax preparation and the 280E mitigation – recent court cases

ON-DEMAND

Emerging Issues in the Cannabis and Hemp/CBD Industries

MAJOR TOPICS

- Who regulates cannabis in Colorado
- Growth outlook
- Current hot button issues
- IRC 280E

ON-DEMAND

Being the Trusted Advisor to Marijuana Clients

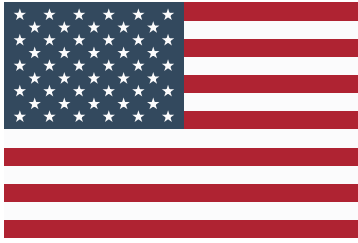
MAJOR TOPICS

- Best practices to protect you and your clients
- What to expect when working with this industry
- Issues that are unique to this industry

LEARN MORE AND REGISTER AT cocpa.org/Marijuana-Courses

By Omar Sacirbey

U.S. DEVELOPMENTS



Arizona MSO Acquires In-state Rival

Arizona's largest medical cannabis company, **Harvest Health & Recreation**, acquired competitor **Arizona Natural Selections**. Under terms of the deal, Harvest received:

- Vertical licenses for three operating MMJ dispensaries and a fourth location to be opened.
- A 55,000-square-foot grow facility.
- A 322-acre site containing a 70,000-square-foot greenhouse and 25 acres that are zoned for marijuana cultivation.

Phoenix-based Harvest didn't disclose the purchase price, saying only that it acquired Arizona Natural Selections' licenses for a "nonmaterial" amount of stock. With the acquisitions, Harvest operates 14 of the roughly 120 medical marijuana dispensaries in the state.

Curaleaf Breaks Into Colorado

Multistate marijuana operator **Curaleaf Holdings** announced it will buy **BlueKudu**, a Denver-based producer of cannabis chocolates and gummies. Financial terms were not disclosed. The acquisition gives Massachusetts-based Curaleaf a foothold in one of the biggest marijuana markets in the country. When the deal is closed, Curaleaf will operate an 8,400-square-foot infusion kitchen and processing facility in Denver. BlueKudu was founded in 2011; five years later, it announced a \$2.5 million expansion.



PR and MJ Advocacy Groups Partner

Rasky Partners, a public affairs firm headquartered in Boston, announced its formal affiliation with **The Cannabis Certification Council**, a nonprofit group. The partnership, formalized in early 2020, will help Rasky expand beyond its New England base while also providing Denver-based CCC with services that include brand positioning, media relations and strategic communications.

"The partnership between Rasky and the Council will be a great asset to our cannabis and our codes and regulatory clients," said Doug Bailey, senior vice president and co-leader of Rasky's cannabis practice.

Vape Powers Partnership

Tilt Holdings, a Cambridge, Massachusetts-based cannabis technology platform comprised of assets to support brands worldwide, announced its subsidiary **Jupiter Research** partnered with **The Blinc Group**, a vaping-solutions company. The partners will offer custom vaporization devices and collaborate on industry innovations as well as cannabis vaping regulatory and compliance issues. Blinc founder and CEO Arnaud Dumas de Raully is chair of the International ISO committee on Vaping Standards, chair of the European CEN Committee on Vapor Products, former president of FIVAPE in the EU and an expert in inhalation technology, regulations, manufacturing and distribution.

Chicago VC and MJ Firms Ink Leaseback Deal

NewLake Capital Partners bought and leased back 10 marijuana retail stores in six states from Chicago-based **Grassroots Cannabis** in a deal valued at up to \$19.7 million. NewLake, which also is headquartered in Chicago, has closed on six of the sale-leaseback deals with Grassroots' parent company, GR Cos. The company plans to purchase the other four stores within the next 45 days.

NewLake is paying \$15.5 million for the stores. Grassroots, however, is expected to make \$4.2 million in improvements to the properties, bringing the deal's total to \$19.7 million. The portfolio consists of nine medical marijuana dispensaries and one adult-use cannabis store. NewLake declined to identify the states where the stores are located.

Chicago IP Law Firm Launches MJ Practice

Chicago-based intellectual property law firm **McDonnell Boehnen Hulbert & Berghoff** launched a cannabis practice group. The new cannabis group will be chaired by partners Nicole Grimm and George Lyons III and offer intellectual property support and counseling for cannabis clients ranging from startups to established companies. The law firm has offices in California, Illinois and North Carolina.

NBA Legend Partners With Colorado CBD Firm

Isiah International, a holding company chaired and led by CEO and NBA Hall of Famer Isiah Thomas, partnered with **Vesl Oils**, a Colorado-based cannabis company licensed to extract CBD oils and manufacture CBD products. Vesl was founded by Bobby Scott and Quorum Lopez in April 2018. Vesl expanded from a limited number of CBD

products to offer muscle gel, skin care, oils, supplements and pet-care products.

Ex-NBA Player's Firm Launches Social Equity Effort

Viola, a Los Angeles-based producer and seller of premium-quality cannabis products founded by former NBA veteran Al Harrington, launched **Viola Cares**, a social equity initiative meant to create business and employment opportunities in the cannabis space through education, equitable offerings, criminal-records expungement and incubation programs. Viola Cares' first partnership is with Root & Rebound, a California group that provides legal and advocacy services to communities most harmed by the war on drugs. The partnership hopes to produce a toolkit for people with cannabis-related convictions.

Struggling Delivery Business Raises \$35 Million

Eaze, a major player in California's marijuana delivery industry, raised \$35 million in its bid to become a vertically integrated company with its own cannabis retail brands. The company also has the ability to raise another \$20 million in Series D funding.

The raise, which comes after San Francisco-based Eaze laid off about 20% of its workforce last October, takes two forms:

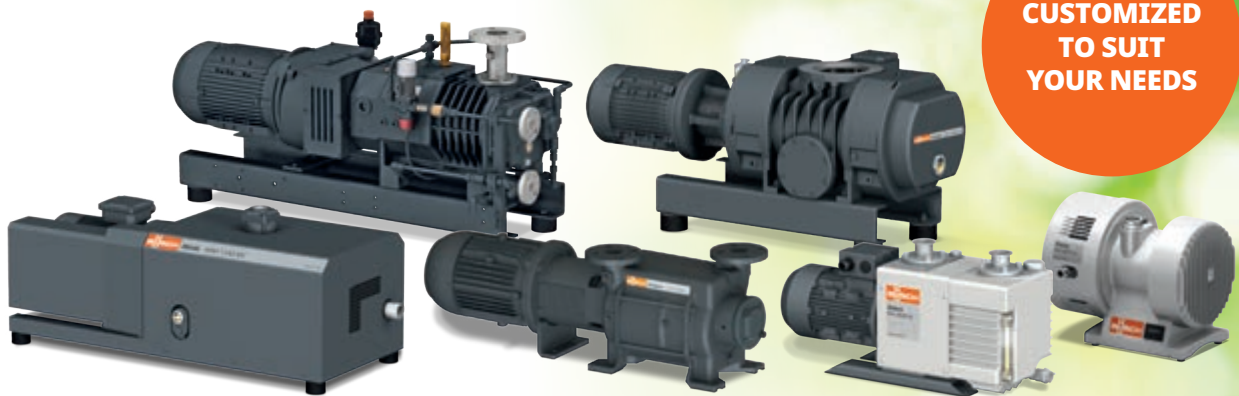
- A \$20 million Series D funding led by **FoundersJT**.
- A \$15 million bridge loan led by Eaze stakeholder **Rose Capital** and **DCM**.

While Eaze will continue to deliver marijuana products from other companies, its new strategy will provide a "more sustainable and profitable" path as the company expands its existing business, CEO Ro Choy said in a news release.

Cultivation Engineering Design Firm Nabs \$6 Million

Urban-gro, an engineering design-services company in Lafayette, Colorado, that focuses on indoor cannabis cultivation facilities around the world, closed an initial draw of its previously announced credit facility for \$6 million with **Infor Financial Group** of Toronto. Proceeds from the credit facility will be used to refinance existing indebtedness and for general working capital purposes.

BUSCH VACUUM SOLUTIONS **For Cannabis Processing**



**CUSTOMIZED
TO SUIT
YOUR NEEDS**

Vacuum technology is highly useful in cannabis purification processes. Evaporation, extraction, distillation, and crystallization are the most common.

Rely on the trusted name for vacuum. Rely on Busch.

info@buschusa.com | www.buschusa.com





Cannabis Research Firm Gets Access to Critical Molecules

Tetra Bio-Pharma, an Ontario company that develops cannabinoid-derived drug medicines, signed a co-development agreement with **MakScientific**, a Boston-based developer of cannabis-based medicines. The agreement gives Tetra access to novel patented molecules with CB1 and CB2 agonist or antagonist properties. This agreement secures patented drug candidates for Tetra to develop after pipeline formulations Caumz and QIXLEEF receive marketing approval. Under the agreement, MakScientific will develop new molecules to be screened by Tetra for potential efficacy against cancer, pain and inflammation as well as other potential targets.

BC License Holder Pops New Beverage Lines

The Valens Co., a license holder in Kelowna, British Columbia, launched a line of cannabis-infused beverages produced under a white-label agreement with **A1 Cannabis Co.**, a Toronto-based subsidiary of Iconic Brewing. The new line of beverages includes Basecamp, a CBD-infused iced tea, and Summit, a THC- and citrus-infused water. Both beverages were developed using Valens' emulsion technology, which transforms cannabis oil into water-soluble forms for use in beverages, edibles, topicals and other consumer products.



Ontario License Holder Raises \$1.9 Million

Canada House Wellness Group, the parent company of Abba Medix, a license holder in Pickering, Ontario, raised \$1.9 million (CA\$2.6 million) for general corporate purposes. A company insider bought approximately \$223,000 of the offered shares. Such subscription is exempt from formal valuation and minority shareholder approval requirements, as neither the fair market value of any shares issued to nor the consideration paid by such person exceeded 25% of the market capitalization of Canada House. Canada House Wellness also owns Canada House Clinics, a national cannabis clinic chain, and Knalysis Technologies, a provider of cloud-based software that provides data to physicians, providers and patients.

Slang Acquires Cannabis IP Business

Slang Worldwide, a cannabis consumer packaged goods company headquartered in Toronto, bought **Cultivate Brands Corp.**, a privately owned company with a portfolio of brands and other intellectual property in Oregon. Cultivate's assets include extraction equipment and other machinery Slang intends to use within its network, approximately \$3.4 million (CA\$4.5 million) in cash and a strategic investment in a company within the supply chain.

Toronto MJ Firm Gets Funding for Florida Grow

Ontario-based **CannCure Investments** secured a \$15 million construction loan from **Advanced Flower Capital** to fund the building of an 88,327-square-foot indoor medical marijuana grow, processing and lab facility in Florida. Toronto-based cannabis company **Sol Global Investments** acquired CannCure in 2018. The loan will be secured by a mortgage and other security interests. CannCure will build the facility on its One Plant site in Indiantown, Florida. One Plant formerly was known as 3 Boys Farm.

Alberta Cannabis Company Rebrands

Calgary-based **Westleaf** has renamed itself the **Decibel Cannabis Co.** The rebrand brings the former company's Westleaf and We Grow businesses under one name and brand identity. Common shares of the new business are anticipated to begin trading under the ticker symbol DB on the TSX Venture Exchange.

Canopy Strikes Export Deal With Israeli Firm

Ontario-based **Canopy Growth** is partnering with **Univo Pharmaceuticals**, a cannabis product-manufacturing company in Ashkelon, Israel. In the first stage of the agreement, Univo will import 470 kilograms (1,036 pounds) of dry medical cannabis grown by Canopy, produce Univo-branded cannabis products with Canopy's raw materials and distribute them to Israeli pharmacies. In the second stage, Canopy will order manufacturing and processing services from Univo's plant in Ashkelon and will have the right to enter into agreement with Univo as a producer and distributor of medical cannabis products under the EU-Good Manufacturing Practice standard in European markets, subject to the required approvals.

Ontario MJ Companies Strike Licensing Deal






Namaste Technologies, a Toronto-based platform for cannabis products, accessories and education, announced that its wholly owned German subsidiary, **CannMart**, executed a licensing agreement with



nextec

CannaBusiness Technology

A single platform to manage
your cannabis business

-  One system that is more than seed to sale
-  Traceability and quality control
-  Business optimization and management
-  Secure cloud and data integrity
-  Health Canada and state reporting

Visit our website:
nextecgroup.com/mjbiz

Ignite International Brands. The agreement grants CannMart a license to use certain Ignite brand trademarks on legal cannabis-based products in exchange for royalty payments.

Pursuant to the agreement, CannMart will work with Ignite's quality-control and product-development

teams to source flower and other inputs for use in Ignite products. CannMart also assumes all functions associated with procurement, processing and packaging of Ignite products and will oversee the sale and distribution of Ignite in Canada. Ignite will market products in Canada on behalf of CannMart.

INTERNATIONAL DEVELOPMENTS

MJ Firm in Israel Strikes Deal With Nation's Biggest Drug Store Chain

Canndoc, a medical cannabis company owned by Israel-based **InterCure**, partnered with Israel's biggest drug store chain, **Super-Pharm**. Under the terms of the agreement, Super-Pharm committed to acquiring 10 tons of Canndoc's GMP medical cannabis products over a three-year period. Canndoc's products will be transferred from its manufacturing facilities to Super-Pharm's distribution center, which will be responsible for distributing product to its 41 medical cannabis-authorized pharmacies. As part of the partnership, Canndoc will provide Super-Pharm with professional and clinical expertise. Canndoc will begin supplying its products to Super-Pharm immediately.



Canndoc also announced a strategic pharmaceutical-grade cannabis commercial deal with **Collect Biotechnology**, a publicly traded firm listed on the Nasdaq, for the reduction of opioid usage. Canndoc intends to market its Canndoc-Collect pharmaceutical-grade cannabis products through its Super-Pharm stores and other distribution channels.

New Zealand Grow Raises \$12.8 Million

Auckland, New Zealand-based **Helius Therapeutics** raised \$12.8 million (20 million New Zealand dollars) to help fund facility expansion and clinical trials. Co-CEO Paul Manning said the fresh round of capital will allow Helius to invest in clinical studies and expand its operations. The New Zealand company signed a memorandum of understanding with two clinical trial groups—Lakeland Clinical Trial Group and Southern Clinical Trial Group—to commence work in the next three months. Helius has plans to double the size of the company's cultivation facility, which currently sits at 65,000 square feet. Helius is among nearly two dozen companies that are licensed to grow cannabis for research purposes.

Amsterdam Seed Provider Partners with PA Grow

OG DNA Genetics, a marijuana seed company headquartered in Amsterdam, announced a licensing agreement with **PurePenn**, a company

in McKeesport, Pennsylvania, that grows and produces pharmaceutical-grade cannabis, capsules, concentrates, tinctures, flower and oils. The agreement grants PurePenn a license to the DNA brand, access to its proprietary genetics and standardized operating procedures for their cultivation at the PurePenn cultivation facility. PurePenn's facility will be comprised of approximately 125,000 square feet of indoor cultivation and production space upon completion of its ongoing expansion efforts.

Australian-German Supply Deal

Perth, Australia-based **Little Green Pharma** has signed a binding three-year supply deal with German medicinal cannabis company **Demecan**. The purchase agreement with Demecan is for any combination of 1,000 kilograms (2,200 pounds) of dried flower or 48,000 units of medical cannabis oil per year. The agreement kicks in with the first commercial shipment, which is expected to take place in the second half of this year. Financial terms were not disclosed.

The Australian company also has a deal in place with CC Pharma, a subsidiary of Canadian license holder Aphria and distributor of pharmaceutical products in Germany.

Berlin MJ Firm Raises European Record Funding

Sanity Group, a medical cannabis and wellness company headquartered in Berlin, has completed what it is calling the largest round of cannabis financing in Europe to date. The round was led by **Calyx**, a European cannabis-focused investment fund, and **HV Holtzbrinck Ventures** of Germany, Sanity said in a news release. The cannabis company, founded in 2018, plans to deploy the funds to improve access to medical and medically related cannabis products. ^{MBM}

Have a company announcement you want us to consider? Send a news release or general information to omars@mjbizdaily.com. (Note: We're looking for news about expansions, financing, deals, partnerships and similar developments, not product-related announcements.)

The icon.
The future.
The Gavita LED.



Everything you'd expect from a Gavita LED

- Delivers 1700 $\mu\text{mol s}^{-1}$ @ 2.6 $\mu\text{mol s}^{-1}$ per watt
- Premium Philips Advance Driver
- Powerful Samsung and Osram Diodes
- IP66 rated for wet environments and UL 8800 certified

See the future at gavita1700.com

GAVITA
HORTICULTURAL LIGHTING

MAP LEGEND

- High level of medical development/implementation
- Medium level of medical development/implementation
- Low level of medical development/implementation
- Other - federally illegal but unique circumstances
- Recreational

Countries included have passed legislation at the federal level and must fulfill at least one of the following criteria:

- Cultivation, manufacture or sale of medical and/or recreational cannabis allowed.
- Doctors can prescribe medical cannabis.
- Import and/or export of medical cannabis allowed.

High: Countries at the forefront of the global industry. Frameworks are established, and adoption is well underway.

Medium: Implementation has begun but is still limited or restricted; lots of room for the market to develop.

Low: Legislation has been passed, but implementation is very limited or nonexistent. Decriminalization is not included.



National & International News

Coronavirus Compounds Financial Pressures, May Provide Investor Opportunity

As the coronavirus rattles stock markets around the world, it's making it harder for cannabis companies to raise money from investors in a tight funding environment.

"We could even see good companies start to fail because their access to capital is getting super tight," said Morgan Paxhia, managing director of San Francisco-based Poseidon Asset Management.

Capital was already scarce in the cannabis industry because marijuana-sector stocks began plummeting about a year ago, due largely to overly hyped performances sold to investors and underperformance by many publicly traded MJ businesses.

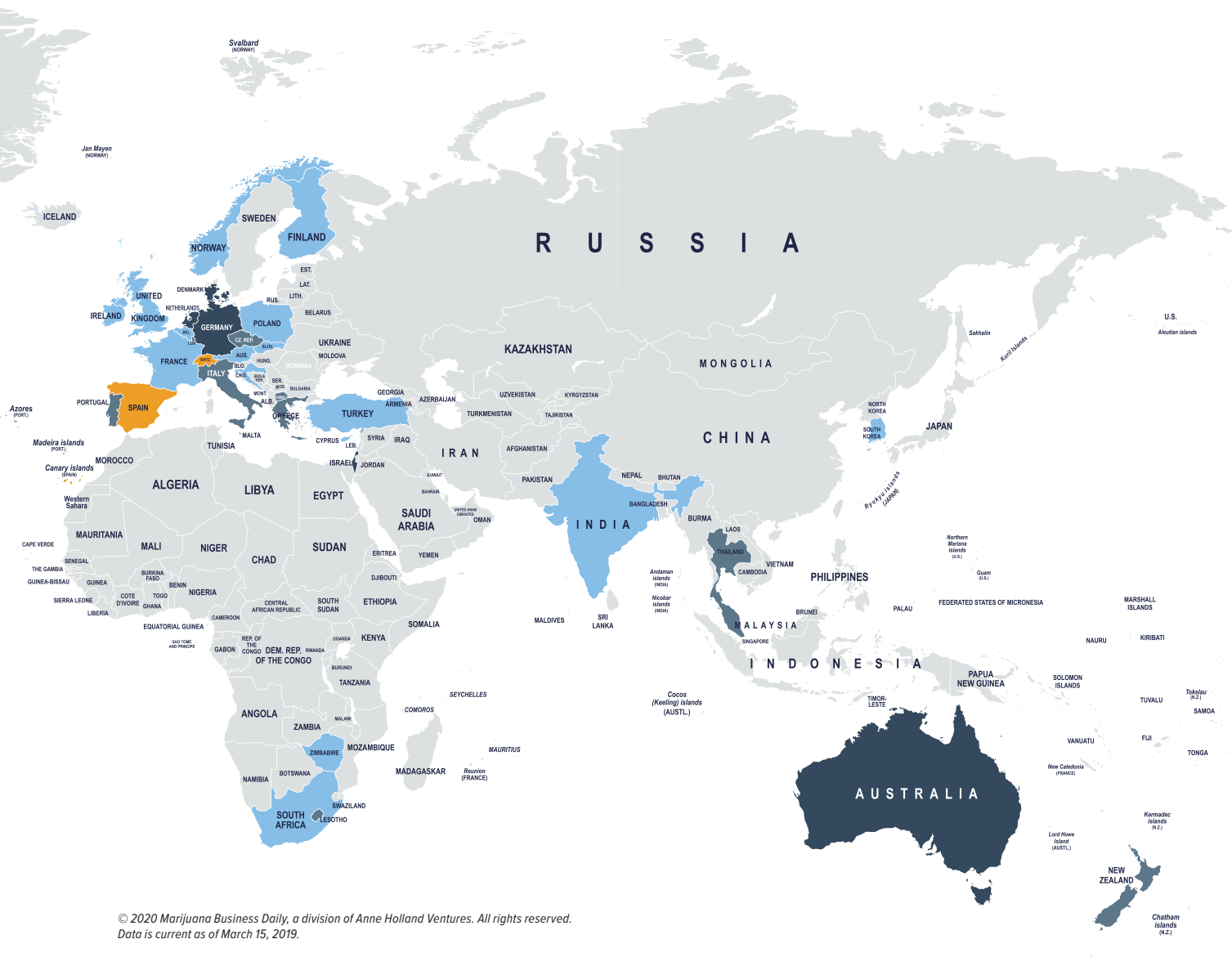
"The public markets are more susceptible to the coronavirus and the impact around it, because it's short term," said Matt Karnes, the founder of GreenWave Advisors in New York.

But some marijuana financial experts see a possible silver lining for investors: an opportunity to buy—or at least get a chunk of—some companies on the cheap.

"It means we're getting very attractive, rational valuations," Paxhia said.

Amid Coronavirus, Canadian Cannabis Stores See 'Unprecedented' Sales

Cannabis stores in Alberta, Ontario and Quebec reported "unprecedented demand" as Canada hunkered down to fight a worsening coronavirus outbreak.



© 2020 Marijuana Business Daily, a division of Anne Holland Ventures. All rights reserved. Data is current as of March 15, 2019.

Executives told Marijuana Business Magazine there was no threat to supply chains as of March 16, and safety measures including online ordering and delivery were in place to keep employees and consumers safe.

Daffyd Roderick, Ontario Cannabis Store communications director, said OCS orders on March 15 were up 100% from the previous week, before social-distancing measures were recommended. “The last three days have seen a marked increase in volume in sales on OCS.ca and a high demand for our same day/next day delivery option where it is available,” he added.

Mexican Senate Commissions Approve Bill Legalizing Recreational Marijuana Use

Three Senate commissions in Mexico acted together to pass legislation to legalize all forms of cannabis, bringing

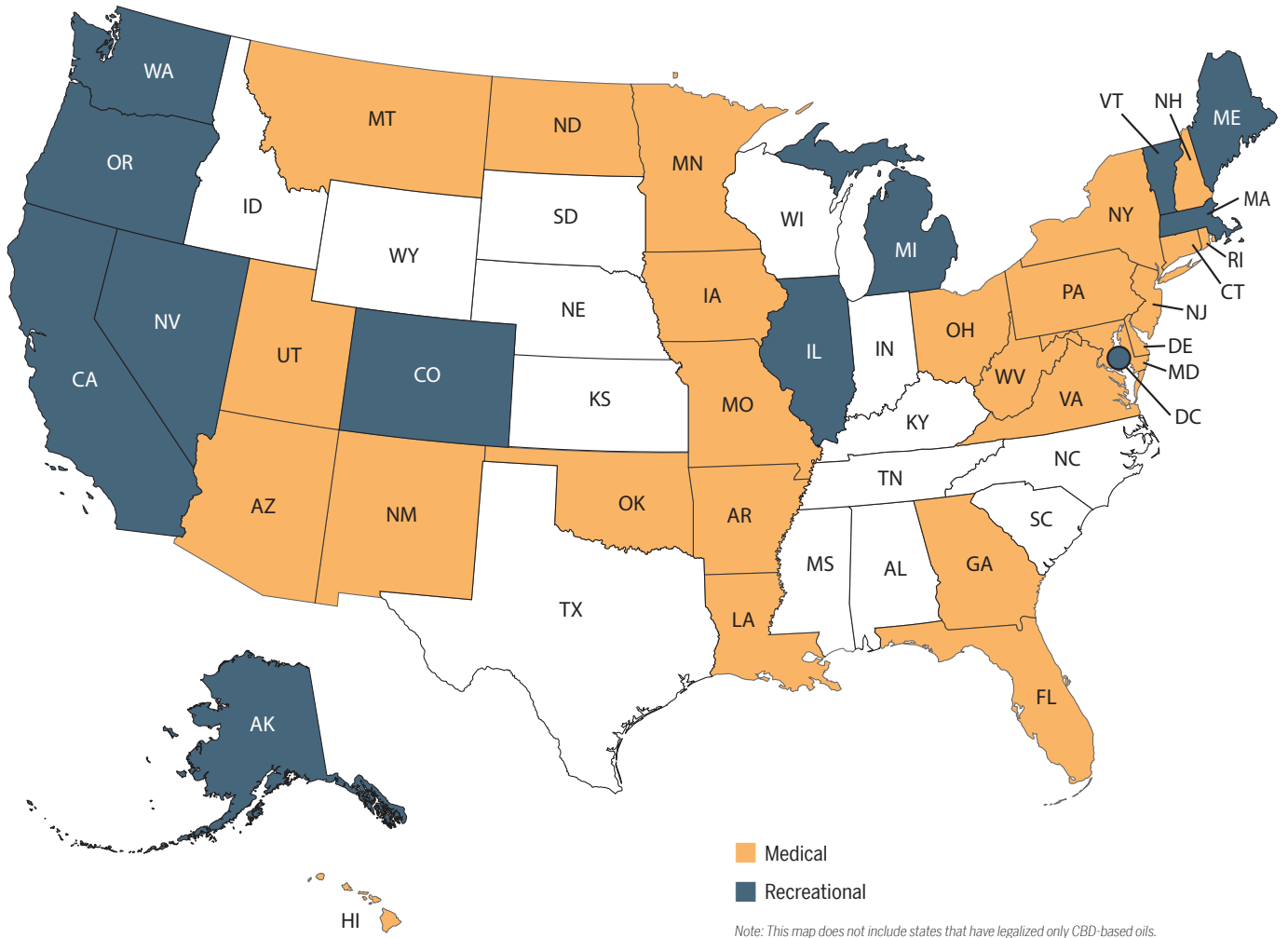
the country one step closer to launching the world’s largest adult-use program by population.

Mexican lawmakers face an April 30 deadline to legalize cannabis, according to a Supreme Court decision. In addition to recreational marijuana, the bill would legalize cannabis for medical and industrial hemp use.

An adult-use market in Mexico—with roughly 130 million people—would be much larger than existing programs in Canada and Uruguay, which both have smaller populations.

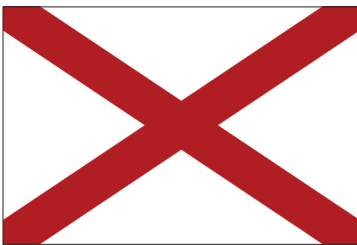
The bill proposes legalizing possession of marijuana of up to 28 grams and decriminalized up to 200 grams, as well as authorizing home growing with certain limits.

A cannabis agency would be created to regulate commercial opportunities and issue licenses.



© 2020 Marijuana Business Daily, a division of Anne Holland Ventures. All rights reserved. Data is current as of March 15, 2020.

State News



Alabama

The Alabama Senate passed a medical marijuana bill in March that would license 34 dispensaries across the state. The bill also would permit people with a doctor's recommendation to use MMJ for 15 conditions. In addition, the measure allows medical cannabis in forms such as pills, skin patches and creams but not in smoking or vaping products. The legislation now moves to the Alabama House of Representatives, where its fate is uncertain.



Alaska

Wholesale prices for recreational marijuana in Alaska remain high, though rates have fallen slightly as more growers build out facilities and the market expands as it matures. While prices are strong compared to other mature recreational cannabis markets, an arduous tax burdens cultivators to the tune of \$800 per pound of wholesale. Marijuana business owners in the state report pounds of wholesale cannabis flower are selling for between \$2,600 per pound (outdoor/trim grown primarily for extraction) and \$4,000 per pound (indoor-grown flower testing at more than 30% THC).



Arkansas

A medical marijuana dispensary applicant in Arkansas lost a legal challenge to obtain an MMJ license, which means the state can restart the permitting process. A Pulaski County Circuit Court judge issued a temporary restraining order on Feb. 25 preventing Arkansas from issuing new licenses in response to Pine Bluffs-based Medicanna's lawsuit contending regulators had broken state rules by awarding an MMJ license to a company that scored lower on its application. On March 3, Judge Wendell Griffen ruled that Medicanna had no grounds to challenge the licensing procedure, saying the company disqualified itself when it requested and received a refund of its application fees last April.



California

The U.S. attorney for the Eastern District of California issued a grand jury subpoena for records related to 30 marijuana companies, including the parent of Weedmaps. The subpoena "covers documents related to cannabis businesses listed on Weedmaps" as well as information related to its staff, investors, accounting, communications and payments to government employees, elected officials and candidates for public offices. Meanwhile, prosecutors also requested records regarding California cannabis companies CannaCraft and Terra Tech.



Colorado

Denver's marijuana regulator set a new cap for marijuana locations in the city for the first time since 2016. According to the Office of Marijuana Policy (OMP), the number of allowed locations (not actual licenses) in Denver has been set at 220 retail storefronts and 299 cultivation sites. By comparison, Denver currently has 212 marijuana retail storefronts and 247 cultivation sites, according to OMP spokesman Eric Escudero. Applications for the additional locations will be available through a lottery.



Florida

The state Senate killed a provision that would have limited THC in medical cannabis to 10% for patients younger than 21, a move that could have been costly to businesses. Initially, Florida's speaker of the state House wanted to cap THC in all medical marijuana at 10%. The Florida House voted to include the cap for patients younger than 21 in a broader health-care package, but the Senate stripped out the provision before acting on the bill last month. A number of states recently moved to restrict THC, but so far the measures all have failed.



Illinois

State cannabis retailers in border towns are seeing strong sales to customers from neighboring states but are spending time and money training their employees to warn people that it is unlawful to transport marijuana across state lines. Out-of-state customers who are 21 years old and have a valid driver's license can purchase cannabis in Illinois. In other news, the price of wholesale flower in Illinois has jumped \$200-\$500 per pound since a year ago, before the Jan. 1 launch of recreational marijuana sales.



Iowa

Gov. Kim Reynolds believes the state's proposed limit on how much medical marijuana a dispensary can sell an individual is adequate. The Medical Cannabidiol Board recommended earlier this month that the state remove a 3% cap on the amount of THC in MMJ products and replace it with a sales cap of 4.5 grams per person over a 90-day period. That decision came in response to a request from MedPharm Iowa, the state's first medical marijuana manufacturer, to increase the sales limit to 17 grams over 90 days. Committees in both the Iowa House and Senate approved proposals to remove the current 3% cap on THC, but Reynolds said she is "comfortable with where the board ended up."



Kentucky

The state House of Representatives voted to legalize medical marijuana sales in Kentucky. The vote represents the first time a medical marijuana bill has passed either legislative chamber in the state. The bill, which passed 65-30, now moves to the state Senate, which might consider making changes to the language. Under the House bill, medical marijuana could be recommended by doctors to treat conditions including chronic pain, epilepsy, multiple sclerosis, nausea and vomiting.



Maine

As the state prepares for recreational marijuana sales to begin in a few months, regulators have issued 31 conditional adult-use cannabis licenses—16 of them to retailers. In addition to the stores, the Office of Marijuana Policy said it is mailing the licenses to:

- Ten marijuana cultivation facilities.
- Four manufacturing facilities.
- A nursery.

The agency's director, Erik Gunderson, said mailing the conditional licenses "moves us another step closer" to honoring a pledge to launch adult-use sales in the state. The agency expects to issue active licenses as early as April, and officials indicated sales would begin in June.



Massachusetts

State regulators are seeking additional money in order to cut in half the time required to obtain a cannabis business license. The Cannabis Control Commission's goal in the next budget year is to cut the average time for an initial license review from 121 days to 60 days. To achieve that goal, the CCC needs an additional \$2.8 million to hire up to 34 new full-time employees. In separate news, Boston Mayor Martin Walsh appointed five members to the panel that will issue marijuana business licenses and advise his office on cannabis regulations and policies. The Cannabis Board was created in November, when the City Council approved a measure to improve Boston's maligned licensing process.



Michigan

State regulators agreed to phase out medical marijuana caregivers, a move that could generate more business for the state's licensed cannabis growers and processors. Authorized caregivers who grow cannabis have been the biggest supplier of marijuana products to retailers. Starting Oct. 1, medical cannabis caregivers will be prohibited from selling product to licensed businesses, the Marijuana Regulatory Agency said in a bulletin. The state, where recreational marijuana sales began Dec. 1, has issued licenses for almost 200 cannabis growers and 25 processors, according to the MRA.

NOW OFFERING FINANCING FOR YOUR GROWING BUSINESS

Finally, an affordable financing option made specifically for cannabis cultivators, processors, and dispensaries. With low rates, a quick application, and flexible payment plans — get a loan that's perfect for budding businesses.

 **OMEGA**TM
EQUIPMENT & SUPPLY

omegastore.com





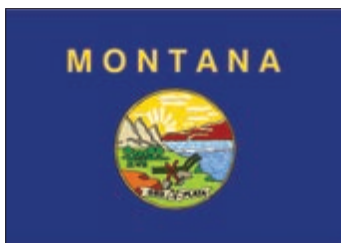
Minnesota

The Minnesota Pharmacy Board and the state's agriculture, health and public safety departments requested that an Office of Cannabis Management be created to streamline the process of governing the medical marijuana and CBD industries as well as a potential adult-use market. The office also would oversee the state's fast-growing hemp and CBD market and help the state deal with unregulated and mislabeled products.



Missouri

State regulators approved more than 35,000 patient registrations by early March. Medical cannabis sales won't begin in Missouri until late summer at the earliest, but 35,532 patients have successfully registered to use MMJ to treat certain qualifying conditions. The number of registered patients far exceeds what researchers had projected this early in the process. The health department awarded 192 dispensary, 60 cultivation and 86 processing licenses. Many of the licenses went to large, out-of-state multistate operators, and at least 845 appeals have been filed by companies that did not receive permits.



Montana

The state's medical cannabis program—already one of the largest in the nation on a per-capita basis—posted year-over-year, double-digit patient count growth, rising to nearly 39,000 as of January. The percentage of Montana's population registered now stands at 3.6%, the third-highest in the nation. Further change could come at the end of 2020, as two competing ballot initiatives to legalize adult-use cannabis are pending review by Montana's secretary of state's office. If the measures are approved, organizers will have until mid-June to collect signatures to qualify for the 2020 ballot.



Nevada

The state issued a health advisory for 20 different contaminated cannabis products that were sold at 30 retail marijuana stores in Nevada. The retailers sold marijuana flower and pre-rolls that failed an independent laboratory's microbial testing for mold, yeast and bacteria. The marijuana, grown by six different cultivators, initially passed testing by Las Vegas-based lab Cannex. The lab was shut down in December by the Nevada Department of Taxation after the facility was found with two strains of marijuana containing three times the allowable limit of yeast and mold.



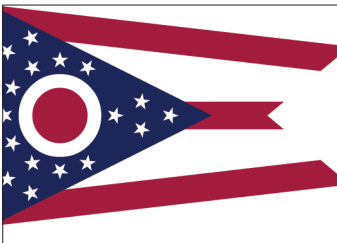
New Mexico

The state stopped issuing medical cannabis enrollment cards to people who live outside New Mexico but soon will allow nonresident patients enrolled in other state programs to buy MMJ. Beginning July 1, New Mexico dispensaries will be permitted to recognize MMJ enrollment cards from other states that have legalized medical cannabis use. New Mexico's MMJ program director, Dominick Zurlo, noted that it's still illegal to transport medical marijuana across state lines and that the goal of recognizing out-of-state cards is to allow patients to access cannabis just like other medications.



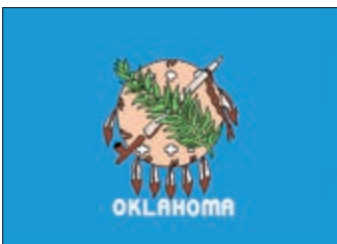
New York

Gov. Andrew Cuomo said he would visit several markets that have legalized recreational marijuana in an effort to help develop a plan to get similar legislation passed in his state. "I'm going to visit Massachusetts, Illinois and California or Colorado," Cuomo said before news of the coronavirus was widespread. Cuomo and his team planned to visit the states to learn what's worked regarding legalizing recreational marijuana as well as what didn't go as planned. The governor said in his State of the State address in January that legalizing adult use is one of his budget priorities in 2020.



Ohio

Multistate marijuana operator Harvest Health & Recreation must pay \$500,000 to settle a social equity misrepresentation charge from Ohio regulators before it can open three medical cannabis dispensaries in the state. The penalty, one of the largest ever assessed to a marijuana operation in Ohio, settles the allegation that Arizona-based Harvest misrepresented the minority ownership of a medical cannabis business in the state.



Oklahoma

In a lawsuit filed in the Northern District of Oklahoma, the Bank of Oklahoma accused the Dank of Oklahoma dispensary of using a variation of the institution's logo that it registered as a trademark in 1975. Dank of Oklahoma's logo and slogan—a marijuana leaf and the phrase "What's in your dank account?"—were "clearly intended to evoke the services offered" by the bank, according to the filing. The bank is seeking an injunction preventing Dank of Oklahoma from using the "confusingly similar" name and slogan and asks that the dispensary relinquish similar social media accounts. The suit also seeks punitive damages and profits.



Pennsylvania

Regulators approved four more medical marijuana companies to grow MMJ that state universities can use for research. The Pennsylvania health department approved these companies for MMJ research collaborations:

- Curaleaf is contracted to grow MMJ for the Perelman School of Medicine at the University of Pennsylvania.
- Laurel Harvest Labs is partnering with Lewis Katz School of Medicine at Temple University.
- CannTech is partnering with Lake Erie College of Osteopathic Medicine.
- Organic Remedies is partnering with Philadelphia College of Osteopathic Medicine.

Those four alliances coupled with three partnerships approved last June bring Pennsylvania within one of its limit of eight entities that are permitted under state law to grow, process and supply marijuana to research institutions. Only the University of Pittsburgh School of Medicine still is seeking to contract with a medical marijuana cultivator.



Rhode Island

The Department of Business Regulations is expected in the coming weeks to announce the licensing application period for six new medical cannabis dispensaries. Currently, Rhode Island has only three operating dispensaries, called compassion centers in the state. The new licenses will be assigned using a lottery system. There will be one dispensary for each of the six geographic zones in Rhode Island. The new regulations ban the new dispensaries from initially growing cannabis.



South Dakota

Members of an American Indian tribe in South Dakota voted to legalize medical and recreational marijuana on their reservation, according to the Oglala Sioux's election commission. Assuming the results are upheld, the tribe will be the only one in the United States to create a cannabis market in a state where the plant is otherwise illegal. Initial plans call for the tribe's own cannabis production and retail operations. If state voters approve legalizing marijuana in November, the tribe would have a head start in growing and selling MJ in the state.



Utah

Dragonfly Wellness in Salt Lake City opened March 2, making it the state's first operating medical marijuana dispensary. A second dispensary was expected to open later in the month, followed by seven more in June and the final five later this year, according to Rich Oborn, director of the state's Center for Medical Cannabis. Utah issued 14 dispensary licenses to 10 companies, including three multistate operators. Smokable medical marijuana products and MMJ edibles are prohibited, but vaping is legal. Unprocessed flower is required to be sold in blister packs.



Vermont

The state House of Representatives approved a marijuana-legalization bill about a year after the Vermont Senate passed its own version. The Senate likely will call a conference committee to resolve differences between the two versions. The final bill then would go to Republican Gov. Phil Scott for his signature.



Washington state

Social equity applicants for marijuana businesses in Washington state will be able to apply exclusively for a number of revoked cannabis retail licenses after legislators passed a law aimed at boosting the participation of minorities in the industry. According to the state's Liquor and Cannabis Board, a total of 34 such licenses will become available to members of the community disproportionately impacted by the war on drugs. The licenses, which will cost \$1,480 with an application fee of \$250, will be available from Dec. 1, 2020, until July 1, 2028.

A special fund is being set up to help social equity applicants. Currently, \$1.1 million is being set aside annually to help with the application process, business plan development and assistance for micro loans.

Note: Entries sourced from Marijuana Business Daily, Hemp Industry Daily and other international, national and local news outlets. These developments occurred before this magazine's publication deadline, so some situations may have changed.



COMPENSATION CONTEMPLATION



Setting salaries and recruiting the best North American cannabis job candidates in 2020

By Omar Sacirbey

“The fervor of 2017-18 has calmed down a little bit, but companies are going to grow very strategically and be focused on upgrading their talent as they continue to grow.”

—**Liesl Bernard**
CEO of
CannabizTeam



EXECUTIVE SUMMARY

Salaries continue to be most cannabis companies' biggest expense. But increased pressures to control costs are forcing executives to find not just the right people, but talent at the right price. For executives, that means constructing compensation packages that strike the right balance of base pay, equity, bonuses, benefits and culture to win a desirable candidate. Here are some factors to consider:

- Businesses must construct offers that appeal to the individual needs of desirable executives. But, in general, candidates should understand that cannabis companies are young and may have to offer more equity versus base pay than more established industries.
- Because cannabis stocks have taken a hit, candidates are leery of equity as compensation.
- Investors are less likely to invest in cannabis companies where salaries appear inflated.
- While finding talent from big, brand-name companies seems appealing, startup experience also is a good fit in the cannabis industry.
- Hemp experience is still a hot commodity—and salaries in that industry are still high, thanks to the federal legalization of hemp cultivation.
- Recruiters have differing opinions about what positions are most in demand, but they agree that hiring and firing will be determined by a company's strength or weakness.

The marijuana industry has grown large enough to attract the attention of mainstream managers and executives when cannabis recruiters call.

“I have yet to have someone say, ‘I couldn’t work in cannabis.’ That threshold is crossed within the first 10 seconds,” said Ed Schmults, former CEO of the FAO Schwarz toy company and current CEO of Calyx Peak, a Massachusetts-based multistate marijuana operator.

Scott Wells, chief people officer at Chicago-based multistate operator Cresco Labs, agreed. “I’d say less than 5% of the time, people respond and say, ‘Cannabis is too risky; I’m not interested,’” said Wells, who has held senior HR positions at financial services firm Aon and management consultancy The Novo Group.

While the stigma of marijuana is no longer a major barrier to recruiting, finding the right executives and managers is still a challenge. Growing cannabis

companies must identify the skill sets executives will need to navigate their phase of growth.

Is it a newly cash-positive company just exiting the startup phase, a small- to medium-sized company or something bigger? Whatever phase the company is in, it might be necessary to look outside the cannabis sector for talent—and that can mean competing against mainstream businesses and other cannabis companies for top leadership. And although companies are more cautious now with

how and whom they hire, they are hiring nonetheless.

“The fervor of 2017-18 has calmed down a little bit, but companies are going to grow very strategically and be focused on upgrading their talent as they continue to grow,” said Liesl Bernard, CEO of CannabizTeam, an executive staffing firm in San Diego.



Ed Schmults
Courtesy Photo



Scott Wells
Courtesy Photo



Peter Bilodeau
Courtesy Photo

equity grant that provides them with longer-term (compensation) ... that may have been the case earlier in the industry, but that's not a sustainable model,” said Steve Hardardt, senior vice president and chief people officer at New York-based multistate operator Acreage

Holdings. (See “Weighing Your Options” on page 44.)

Acreage, Hardardt said, pays “competitive” base salaries but also offers annual bonus opportunities that get paid in cash.

“It starts as a target, which is a percentage of their base salary,” Hardardt said. “Someone can make \$80,000 base and have a 10% bonus target. And at the end of the year, that bonus target would be based on how the company performs against targets and how the individual performs against targets.”

He added: “I don't think we consciously reduce those in any such way and say, ‘Oh, if we (reduce) that, we can make up for that with more equity.’ We really take a more measured approach and say we want to pay competitively around cash, which is base and an annual incentive. And then we give people equity awards that are reasonable and meaningful for the level that they're at.”

Wells agreed that cannabis companies are decreasingly in positions where they offer executive candidates compensation packages long on equity but short on base.

“The Greg Butlers of the world don't pick up and make a move for nothing,” Wells said, referring to Cresco's new chief commercial officer, hired from Molson Coors in February (see page 100). “You have to show some level of competitiveness with the CPG or with the adult beverage environment or industry from which you're recruiting.”

LESS IS MORE

But other executives said ideal candidates need to understand that they are joining young companies with limited cash but

who was appointed interim CEO at Oakland, California-based Harborside in October. “We can offer wages that are pretty competitive within the mainstream industry and the cannabis industry. ... Between base pay, bonuses and stock options, there's an attractive plate of income for somebody to come in and help build us into a bigger company.”

MONEY MATTERS

After finding good potential recruits for your company, persuading them to leave a stable and lucrative post doesn't always require a higher salary than their previous position—at least in terms of base pay.

“Every situation is unique. You could certainly find situations where we have paid less, equal to and more” than a new hire's previous employer, Wells said.

Determining how much to offer—and how to offer it—requires research into each candidate's salary history, market salaries for similar positions and understanding what combination of base pay, bonus and equity is best for the candidate yet doable for the company.

“You first look at the comparable salaries for this job. You want to know if this person was making X at their company, and they are probably interviewing at other companies that pay Y. So we have to ask: Are we close to that? Are we competitive?” Schmults said. “It's tough to get this information, but you can get it.”

Larger cannabis companies typically offer some combination of base pay, bonus and equity.

“On base salary, you have to be competitive. The thought that you can convince somebody to take significantly less money and base if you give them a big

HOW TO WIN

Competitive salaries are critical to luring top-notch talent, but compensation packages that are too high are not only money recklessly spent but likely a turnoff for investors. Still, crafting a compensation package that is reasonable yet compelling enough to attract talent from well-paying, stable, mainstream jobs is possible. The keys are:

- Identifying your company's needs.
- Identifying the skill sets needed to fulfill those needs.
- Using internal and external recruiters.
- Structuring compensation packages so that base pay, bonus pay and equity are tailored to candidates' individual needs—but without busting the budget.
- Understanding that health plans are expected, while 401(k) plans and similar benefits are also increasingly the norm.

If a cannabis company can follow these principles, they will be able to build management teams with skill sets well-suited to the challenges of 2020 and beyond—but at a price that satisfies both the executive being hired and the one doing the hiring.

“We look at where we are today and where we want to be in the next 24 months. We look at the growth of the industry and then look at candidates that don't just fit in our model today but would have the capabilities to lead the charge 24 months from now, when we've reached a certain size and more complexity in our operations,” said Peter Bilodeau,

long-term potential that, if fulfilled, will result in an even sweeter equity payout.

Margot Micallef, CEO at Gaby's, an infused cannabis products company with headquarters in Santa Rosa, California, and Calgary, Alberta, said people coming into the marijuana industry routinely take base pay cuts in exchange for more equity. To illustrate the point, she referenced a recent hire whose base pay is 30% less than at his previous company.

"He's taking a much smaller cash position but looking at the upside of where he thinks the shares are going to go. When you're a startup, you can't pay people what a large, mainstream company that's well established is going to pay," Micallef said. "Generally speaking, I think they'll get paid no more than what they're making in mainstream (companies)—and, in some cases, less."

What candidates want in terms of base pay and equity also is a good litmus test for whether the candidate has the right mindset for the company, Micallef said.

"We tell them what the value of the package is, then we ask them how they want it broken up," Micallef said.

"The more equity they want, the more suited they are for the space and for this business."

She added: "To a degree, it's their call. It's a mutual coming to terms. As long as it's within reason, we will let them choose the percentages that they want. But it's also a bit of a test to see if they have the right mentality for the post."

Many senior employees split their base pay and equity 50-50, but "some really gutsy people who really get it and who have done startups before and understand what the industry is going through and really buy into the vision, they'll do 70-30."

"It all depends on their circumstances," Micallef added.

"If you hire a family person and they've got kids at home or in college, they're going to need to have a bit more cash up front if they haven't managed their shares. 50-50 is generally a really comfortable place to meet in the middle, if you will."

And if a candidate—even "somebody you want really badly"—demands too much base pay, it's better to not hire them, Micallef said.

"If you want somebody really badly, and they're holding out for too much

money, you just don't hire them. If you can't afford to, that's the reality there," she said. "There's a cap on what we can offer because we are a startup, and investors don't look favorably on companies that pay high salaries."

Schmults agreed, noting that many cannabis companies that lured top candidates with high base salaries find themselves struggling now.

"If your senior team is making way above-market salaries, it's tough to survive. At any company, people figure out what other people are making," he said. "We work hard to have a tight range of clear delineations and keep people within that range. If I bring someone in at a much higher salary level, it usually doesn't work out well and often causes all sorts of secondary issues. So the people coming here, if you look at total comp, equity is a big piece of that." MBM



Omar Sacirbey is a reporter for Marijuana Business Magazine. You can reach him at omars@mjbizdaily.com.

Beyond Pay

While executives can be split about how much to pay candidates, there is greater agreement on the absolute necessity of providing health insurance and the increasing expectation for 401(k) plans.

All of the companies interviewed for this package provide health coverage, while only Acreage Holdings and Cresco Labs provide 401(k) plans—although other executives said they were looking into adding that benefit to their compensation offerings as well.

"You're certainly going to struggle to compete if you're not offering the basics around those benefits that people have come to expect," said Scott Wells, chief people officer at Illinois-based Cresco Labs.

For that reason, California retailer Harborside also is looking into adding a 401(k) benefit, said Peter Bilodeau, the company's interim CEO.

"I think any successful company has to have that eventually in its arsenal. The offset to that right now is we have stock options on a fast-growing company. We see some lifts there. But definitely ... we have to be competitive on all fronts with mainstream industry the bigger we get," Bilodeau said. "There's a lot of highway ahead of us with lots of

opportunities that probably most industries don't have. So the sky's the limit for bright, hardworking individuals who get on the right team."

Company culture and work environment are also important and shouldn't be dismissed as fluff, said Ed Schmults, CEO at Calyx Peak, a Massachusetts company that currently offers health insurance and is planning to offer a retirement plan.

"A big part of the sales effort is sharing the vision. Here's the kind of culture we have. Here's the kind of people we hire. Here's how we think about our brands and our strategy," Schmults said. "People will say that's soft stuff, but it's really important—particularly for senior people because they are probably at a stage in their career where they don't want to work with a bunch of jerks, and they have choices and they can pick."

In fact, smart executives will tie culture to equity when trying to close a deal with an executive they want to hire.

"Of course, you have to be comparable in salary. The equity upside is a big piece, and that's a big piece of our compensation package. And then that goes right along with buying into the culture and the vision," Schmults said.

— Omar Sacirbey



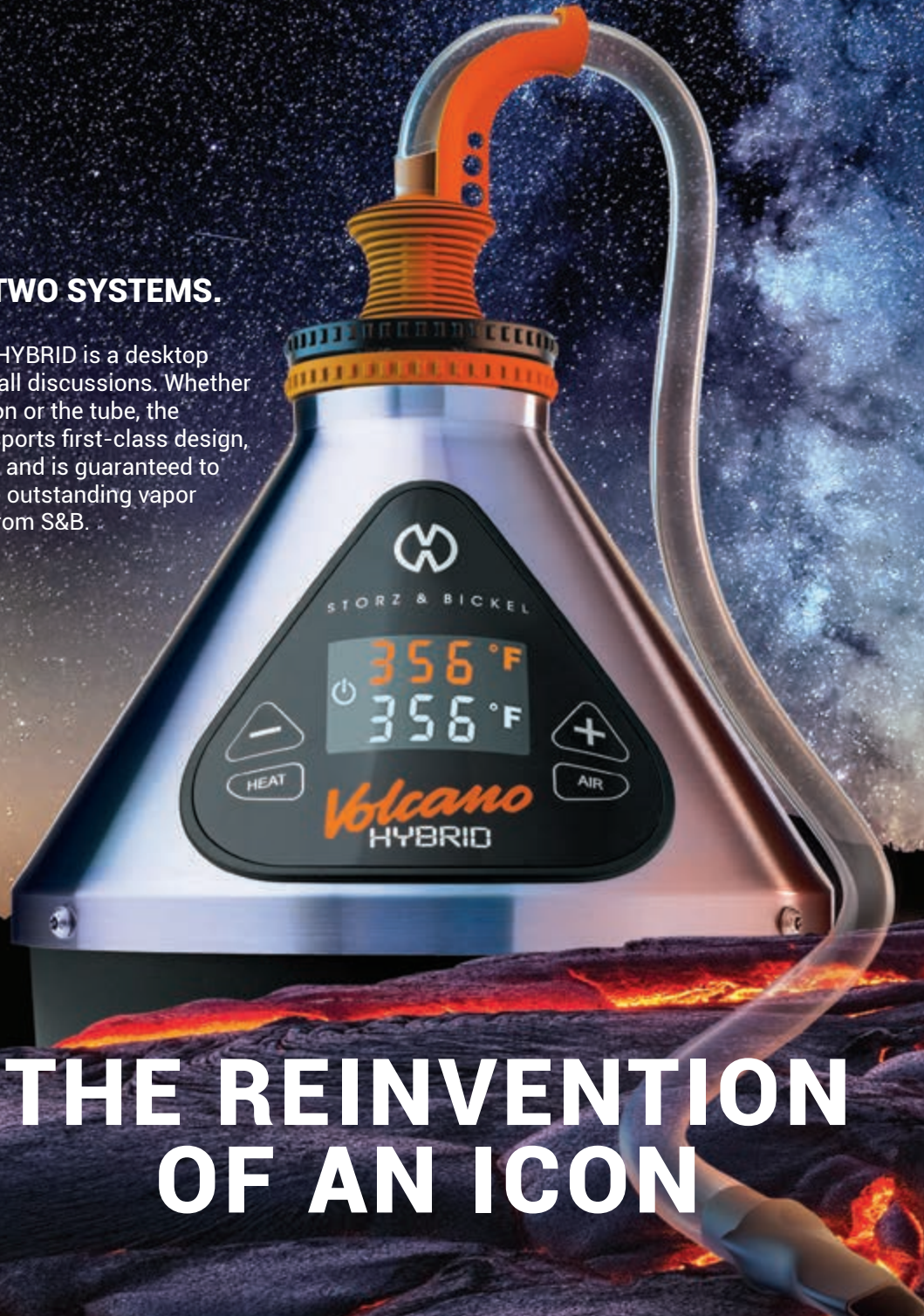
www.storz-bickel.com

Volcano HYBRID



ONE DEVICE, TWO SYSTEMS.

The new VOLCANO HYBRID is a desktop vaporizer that ends all discussions. Whether you prefer the balloon or the tube, the VOLCANO HYBRID sports first-class design, impressive features, and is guaranteed to provide you with the outstanding vapor quality you expect from S&B.

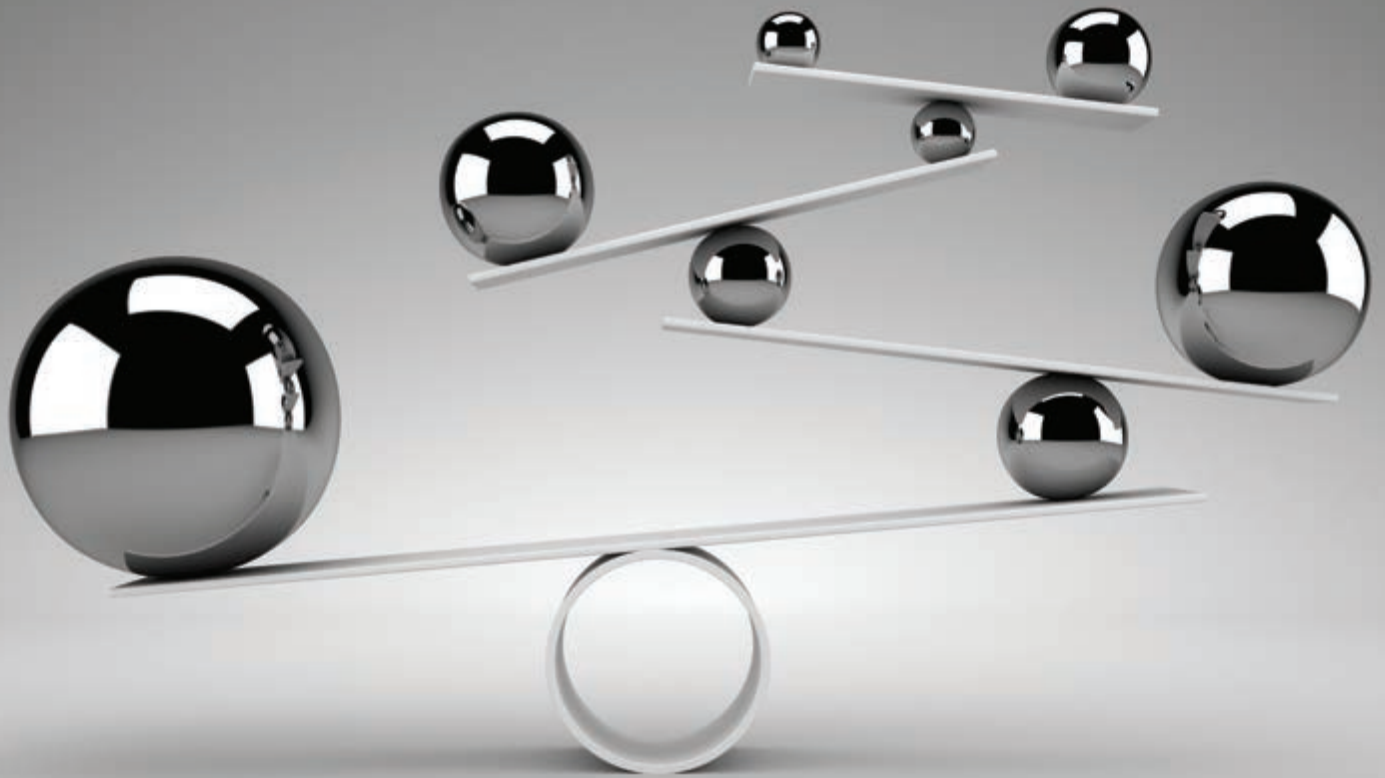


THE REINVENTION OF AN ICON

greenlane

WHOLESALE ORDERS CALL
877.292.7660 | GNLN.COM

NOT FOR SALE TO MINORS



WEIGHING YOUR OPTIONS

By Nick Thomas

Job candidates are increasingly wary of stock options as compensation, but some companies still offer such incentives

Share prices of cannabis companies might be in the tank, but granting stock options or shares remains a significant way for both private and public organizations to try to lure talent.

The main difference this year versus the same period in 2019, however, is that potential employees are far more cautious when it comes to any such incentives.

“When capital markets are hot, stock options are very attractive. They have

a retentive value to them, because people don’t want to walk away from the upside of those options,” said Alison McMahon, founder and CEO of Cannabis At Work in Edmonton, Alberta. “However, when the market shifts—and this is exactly what we’re going through now—those options no longer have the value they once did. They lose their retentive value.”

Some companies offer such packages only to executives, while others do it

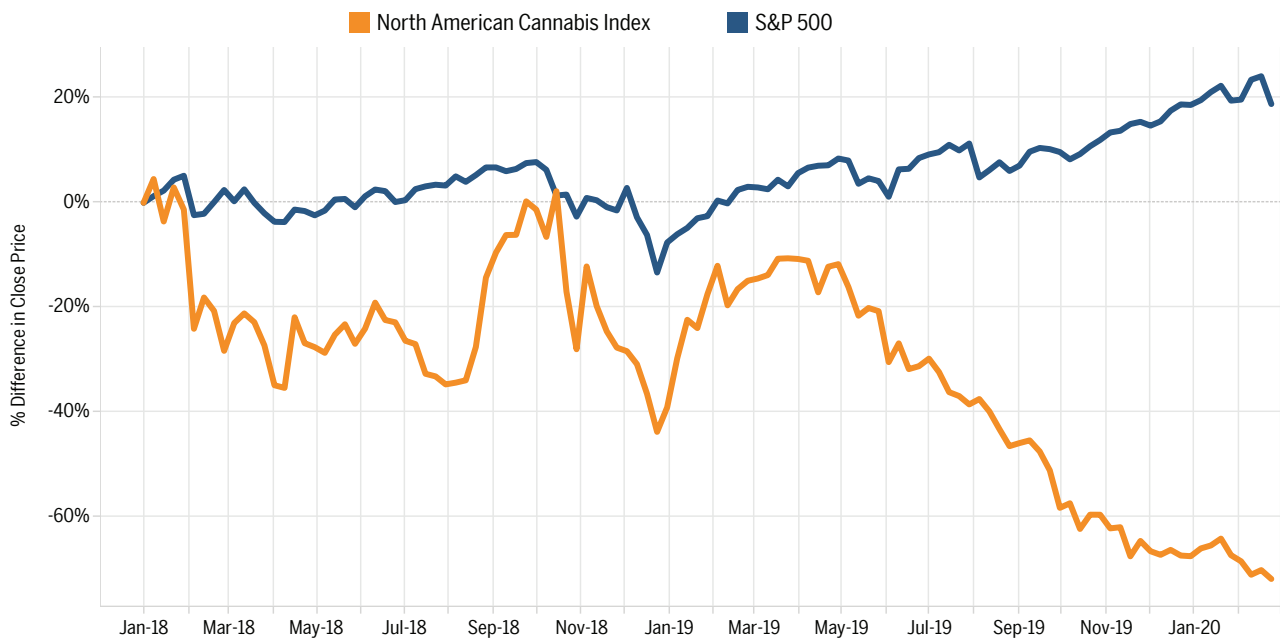
throughout the organization. Denver cannabis recruitment agency Vangst, for its part, offers options to employees even at entry level.

“The way I see it: You treat things better if you are an owner rather than a renter,” said Karson Humiston, CEO of Vangst.

OPEN TO ALL?

Corporate governance in the cannabis industry remains generally weak. And when executives issue themselves either

North American Cannabis Stock Index Performance Versus S&P 500 Jan. 1, 2018, Through Feb. 24, 2020



Source: The Marijuana Index, Yahoo Finance
Copyright 2020 Marijuana Business Daily, a division of Anne Holland Ventures Inc.

shares or options, directors are generally unable to block such grants, said Danny Moses, adviser at New York-based cannabis investment group Merida Capital Partners.

Another misstep by some companies offering options is to set the strike price too low, argues Craig Behnke, equities analyst at *Marijuana Business Daily's* Investor Intelligence subscription service.

Doing this when the price to exercise such an option is equal to or lower than the current share price of the company offers little incentive for an employee to hang on to that option.

In that situation, staffers typically want to cash out rather than work to improve the company with the hope of reaching a higher stock price.

This, in turn, dilutes the share base,



Craig Behnke

lessening the value of an individual employee's shares overall.

"That can become quite dilutive over time," he added.

REAL-LIFE EXAMPLES

One recent example of such possible dilution was the decision by top executives at Arizona-based

multistate operator Harvest Health & Recreation executives to surrender a total of 2.4 million of their individual stock options to employees.

"Our employees are some of the hardest working in the industry, and this award is meant to recognize both the accomplishments of the past year and the expected commitment to achieving profitability ahead," Harvest CEO Steve White said in a news release.

While an altruistic and positive move on the surface, the strike price of

the surrendered options was set at the company's then-current market price of around \$2.85 a share versus the original strike price of \$6.79 per share for the executives.

"We like to see companies use stock options as a component of employee compensation to better align shareholder and employee interests," Behnke argued. "We prefer to see the options granted with a strike price significantly higher than the current stock price. That structure can provide strong incentive for employees to create long-term shareholder value."

Poorly handled or not, options remain a key way for companies to get talented people through the door. Such businesses just have to adapt to the new realities, Vangst's Humiston said.

"We encourage companies to be honest about this because it sets a relationship up better with candidates," she said. "We have seen some companies getting into legal trouble when they have overpromised." MBM

'THERE IS STILL HIRING HAPPENING'

Cannabis At Work CEO Alison McMahon discusses the state of marijuana recruitment in Canada

By Matt Lamers

The Canadian cannabis job market should stabilize later this year after companies restructure and adapt their operations to the newest market realities, according to a cannabis staffing agency in Toronto.

Alison McMahon, founder and CEO of Cannabis At Work in Edmonton, Alberta, estimates the industry currently is losing more jobs than it is gaining. Still, she believes “this is going to be a blip. Once these changes have been made, I believe we will see the job market stabilize.”

McMahon sees several trends emerging from the market correction, including:

- Stabilizing salaries.
- Compensation mechanisms tied to metrics.
- A reduction in ad hoc bonuses.
- More roles throughout the organization being filled with veterans of the consumer packaged goods industry.

“Companies that are hiring are definitely taking advantage of the talent in the market. However, given where the industry is at, many companies are being cautious with hiring and won’t have a need to hire the displaced employees,” she said.

Marijuana Business Magazine spoke with McMahon about the hiring and salary trends she expects to see at Canadian cannabis businesses in 2020 and beyond.



What compensation trends are you expecting to emerge in 2020?

I think we will see a holding trend on salaries. I don’t think we’re going to see a drastic reduction in salaries, because organizations still have to be competitive in the market to retain the talent they have—and the talent they’re still bringing onto the team. There is still hiring happening.

I don’t think we’ll see anything aggressive in terms of increases, but I don’t think we’re going to see hard decreases. Our data suggested that the salaries are already on-market. Offering salaries below market isn’t a long-term strategy. I think we’ll see a holding pattern on salaries.

Which roles are most in demand in the Canadian market?

There is definitely still hiring and growth in the industry. Quality assurance, sales and operations have been a focus in the first quarter of the year.


There’s definitely a trend and a call in the industry for an increased focus on execution. And with that comes a need for a different level of experienced management joining

organizations. We’ll continue to see organizations—as part of this restructuring process—adding management individuals that have been in CPG, pharma, etc., brought into the industry to help with this next phase of operations and focus on revenue growth.

Are Canadian cannabis companies still trying to lure CPG executives?

In the past, we have seen cannabis companies hire one or two C-suite individuals out of CPG or pharma—hires they could do a press release about.

What I think we’re going to see in terms of CPG personnel in 2020 is filling out more levels of the organization with those types of people. These might not be the types of roles that are getting press releases, but I think we need to see that level of professionalism and maturity. We need to see that throughout these kinds of companies, not just at C-suite levels.

Importantly, they have experience in mature organizations with mature management structures and expectations around systems and processes. It’s more about bringing that expertise into the organization and at different levels. 



AUTOVAP™ SERIES
AUTOMATED SOLVENT RECOVERY SYSTEMS

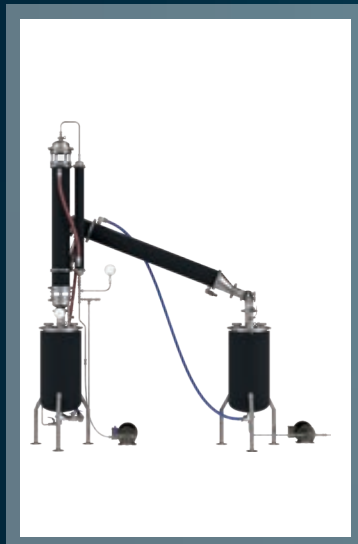
HIGHEST RECOVERY RATE

PER SQUARE FOOT

THE INDUSTRY LEADER IN SOLVENT RECOVERY

100% AOC FINANCING

0% DOWN W/ APPROVED CREDIT



INNOVATION - AUTOMATION - INTEGRATION

www.trusteel.com | (844) 300-8339

HEMPQUAKE

Legalization of hemp causes hiring surge, making experienced farm operators a hot commodity

By Kristen Nichols

For an idea of how federal prohibition skews a labor market, look no further than the boom-boom hemp industry. The end of prohibition caused seismic shifts to a labor landscape with aftershocks that continue to unsettle the industry more than a year later—and offer new job opportunities for folks who had never considered careers in cannabis.

The hemp labor market blew up as soon as the 2018 Farm Bill made the crop legal. Seemingly overnight, conventional farmers and large landowners were scrambling to find employees with expertise in the niche crop.

At the same time, longtime marijuana entrepreneurs looked to join the hemp industry and capitalize on legalization's many benefits, which include lower taxes as well as access to crop insurance and government hiring incentives.

"It was immediate, people wanting to find employees in hemp," said James Yagiello, CEO of HempStaff, a Florida recruiting firm that places talent across the cannabis industry.

"We saw a huge increase in just the first quarter of 2019 (with) everyone wanting to take advantage. The first quarter of 2019 matched all the activity we saw in hemp in 2018," he added.

INSTANT SQUEEZE

The scramble for hemp expertise had immediate effects on average salaries in the hemp sector. Experienced hemp cultivators started commanding six figures, and hiring picked up in places that previously had few legal cannabis employers, such as North Carolina.



Brian Furnish of Ananda Hemp is a veteran tobacco farmer who now grows hemp in Kentucky.
Photo by Laura Drotleff

Hiring activity grew especially hot for people with experience managing large outdoor growing operations. Outdoor cultivation isn't unheard of in marijuana, but outdoor MJ grows generally top out at a few dozen acres—not a few thousand.

So when hemp entrepreneurs hoped to take immediate advantage of legalization by launching broadacre hemp cultivation in 2019, Yagiello saw an incredibly tight market for farm managers with experience overseeing large outdoor farms of any crop.

"You don't have as many people on the (marijuana) side with experience running a large outdoor farm, so those folks were

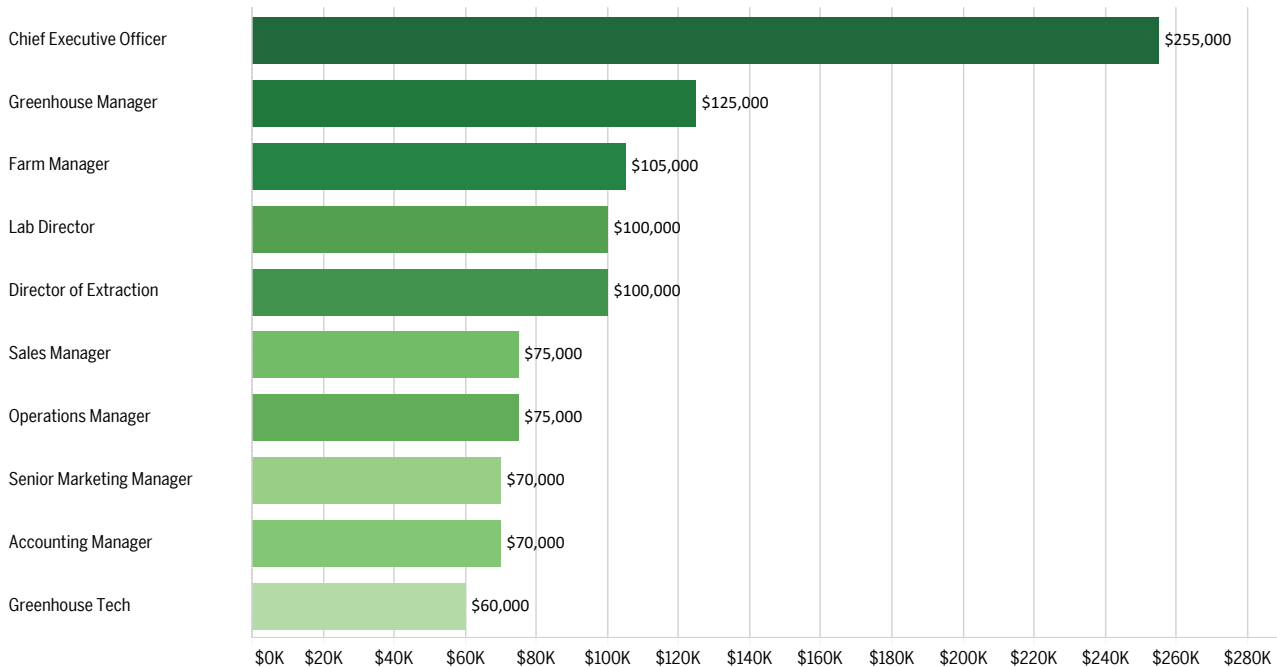
in extremely high demand," Yagiello said. His company saw placements of:

- \$140,000-\$160,000 per year for farm directors in Nevada.
- \$110,000-\$130,000 per year for cultivation directors in Florida.
- \$95,000-\$105,000 for field managers in California.

Salaries were driven even higher because the overall job market for experienced managers is so tight.

"In our area, we're competing with some big tech companies like Panasonic and Tesla, so it's really hard to find good people," said Adrienne Snow, co-founder of Western States Hemp in Reno, Nevada.

Sampling of 2019 U.S. Hemp Jobs with Average Salaries



Source: HempStaff
Copyright 2020 Marijuana Business Daily, a division of Anne Holland Ventures Inc.



HOUSING INCLUDED

The outdoor hemp boom didn't just change the market for cultivation managers.

Less-skilled employees were hard to find, too, in the months after hemp legalization. Yagiello even started seeing employers offer something he'd never seen on the marijuana side: free housing.

Yagiello's clients sometimes offer rooms on or near a farm as an incentive to draw folks to rural areas with little housing available to rent.

It's a job perk that's somewhat common in traditional agriculture, where salaries are generally low and

farmers sometimes provide housing to lure folks. Hemp legalization brought the feature to cannabis.

"A lot of these hemp farms are in very remote areas," Yagiello explained. "So there's not a lot of places to find housing. A lot of these places, they have farm-houses or cottages on the land, and they are renting them out or just making it part of their salary that their employees can live there for as long as they wish while they're employed."

TURBULENT TIMES


If it seems that hemp legalization has done nothing but drive up salaries in the sector, it has also introduced volatility that can have employers and job seekers alike wishing for the relative stability of the illicit marijuana market.

Hemp's expansion in 2019 led to a huge influx of CBD and other hemp products into the market by the end of 2019. The results were predictable: falling prices, followed by tighter margins and layoffs across the sector.

Longtime hemp entrepreneurs such as Michael Bowman, co-founder of First Crop hemp consultancy in Colorado, say the market fluctuations caused by limited legalization in 2014 and then full legalization in 2018 have been significant.

"We went from zero (acres) when we started this in 2014 to something like 500,000 permitted acres last year," Bowman said. "So that's putting a lot of pressure on a lot of points in the supply chain."

He predicted "downward pressure" on hemp wages as the sector matures in 2020 and beyond. But he said salaries will stay high at hemp businesses that can handle industry turbulence.

"Nothing beats a good, loyal employee," Bowman said. "I think the good, legitimate operators who were able to survive 2019, their employees are going to be taken care of. (Those companies) understand that their future is not only them, but it's having good employees." 



RECRUITING STEP BY STEP

Cannabis businesses with a record of successful hiring tend to start by identifying needs within the company and then using a mix of internal and external recruiters to seek candidates with the skills to fill those needs.

"When we contemplate bringing somebody else to the team, it's in context of what's the business need. When we think about that, the first thing to get clear is what do we want that person to contribute," said Steve Hardardt, senior vice president and chief people officer at New York-based multistate operator Acreage Holdings. He previously has led human resource efforts at companies such as tw telecom (now CenturyLink) and Honeywell.

Ed Schmults, CEO of Massachusetts multistate operator Calyx Peak, starts the same way. "We say 'Who do we need?' We write up a job description, spend time on that and make sure we get that right. And then try to identify the skill sets and bring those people here."

Once the skill sets are identified, large cannabis companies primarily use their executives' networks and in-house recruiters to find candidates, but they frequently complement those efforts with outside recruiting agencies.

At Acreage, for example, Hardardt's team consists of a vice president of human resources, a full-time veteran recruiter, plus six regional HR managers who fill posts in cultivation facilities, production facilities and retail stores in the company's various state operations.

Hardardt was recruited last year by Acreage board member Larissa Herda, who was CEO of tw telecom, where Hardardt was chief HR officer.

CALLING FOR OUTSIDE HELP

When internal efforts aren't turning up the right candidates, Acreage turns to outside recruiting agencies. The company used five or six recruiters last year, Hardardt estimated.

"We use them when we have a particularly challenging opening, one that we don't think we can successfully source candidates ourselves," Hardardt said. "It's also an opportunity to find folks that may not be active seekers. In those instances, recruiters can reach out to candidates and develop their interest so we can develop a broader range of candidates."

Chicago-based multistate operator Cresco Labs has hired several specialists for its recruiting team, which over the years has built a database of more than 100,000 candidates.

"I have a recruiter who specializes in cultivation. He just spends his time getting to know anybody and everybody he can around the country in cultivation through LinkedIn, networking, cold calling, whatever. I've got a recruiter who also specializes on the supply chain, warehouse and distribution side. Think more CPG-type companies. When we get positions like that, I'll go to her and give her some specific directions, and she'll pound her network," said Scott Wells, Cresco's chief people officer.

Although "relatively rare," Cresco will use an outside recruiter for posts that its internal team hasn't been able to fill.

Schmults at Calyx Peak estimated that half his management team was recruited through internal leads, and the other half—himself included—were found through a headhunter. Nowadays, however, Calyx uses recruiters only "intermittently" and relies more on internal leads.

"As the industry grows and develops, poaching is an option," Schmults said. "Identifying people you meet in the course of business and trying to lure them over, that's a tried-and-tested way in most other industries."

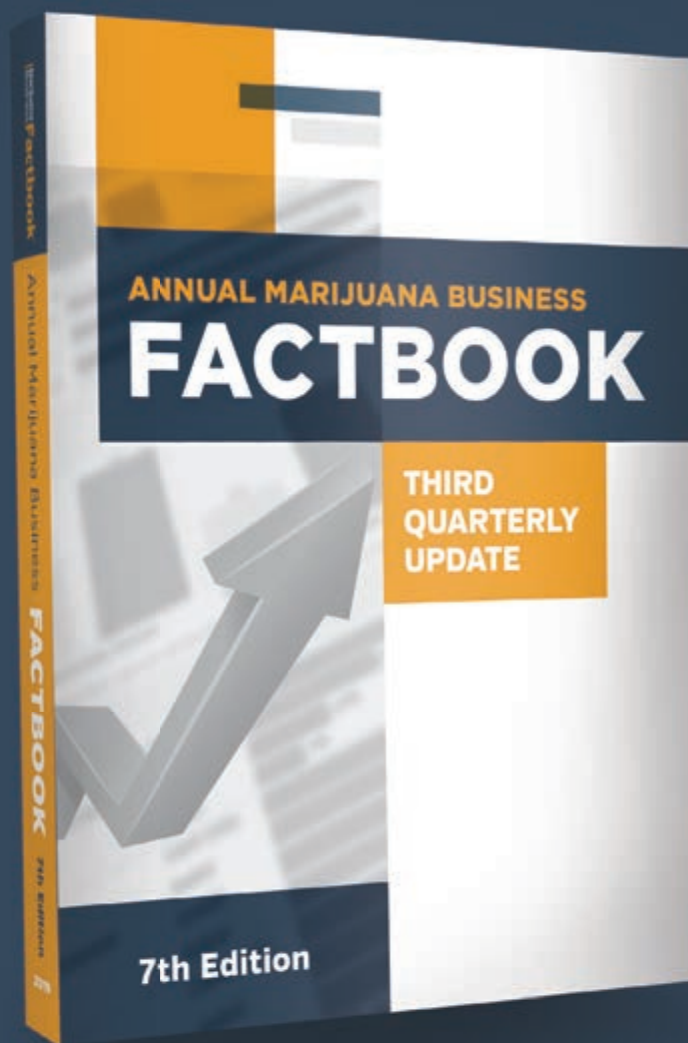
For examples of successful hires that came through internal leads, Schmults points to Calyx Vice President of Merchandising Jen McLaughlin, whom he worked with at FAO Schwarz, and Chief Operating Officer Ben Cook, whom Schmults contacted after Cook left California retailer MedMen Enterprises.

Still, if a company can afford them, external recruiters can improve the recruitment process and introduce companies to candidates they might end up considering for future openings.

"When you use headhunters appropriately, they're very valuable and can bring in terrific people," Schmults said. "But just because a headhunter finds you five people, you still have to do your homework on them and interview them just as hard as you would people in your own network to make sure they fit your company, where it is in its development, the kind of culture you're trying to build and a mix of skill sets."

—Omar Sacirbey

DON'T MAKE A 2020 DECISION WITHOUT ALL THE UPDATED FACTS.



The third quarterly update to the Annual Marijuana Business Factbook includes newly legal markets, state-by-state regulatory and legal updates, plus what trends and obstacles to watch for in 2020 and beyond.

Purchase your copy at mjbizfactbook.com
or call 720-213-5992x1

Sponsored by:

PRECISION **nextec**
DATA ACTION SOLUTIONS

Data Partners:

CANNABIS **HEADSET**
BENCHMARKS

Brought to you by:

Marijuana
Business Daily

BEST OF BOTH WORLDS

Executives say experience at startups can be just as valuable as tenure at large corporations

By Omar Sacirbey

Executives from Kellogg's, Molson Coors, Nike, Pfizer, Whole Foods Market, Wrigley and a slew of other companies with household names have migrated to jobs in marijuana, a trend likely to continue as cannabis legalization spreads and the stigma of MJ declines.


While it might be getting easier to hire talent from big mainstream companies, a growing number of executives caution others against looking exclusively for talent with experience at large corporations. Rather, look for people who have worked in cannabis *and* in the mainstream—ideally at startups.

That's a relatively limited talent pool but one that is growing fast, thanks in part to the industry's maturation and the growing number of erstwhile mainstream executives who also have cannabis experience—not to mention the recent wave of cannabis industry layoffs. Indeed, the pool of candidates who can offer the best of both worlds—mainstream and marijuana work experience—has never been bigger.

Several executives already are taking advantage of this development.

At Harborside, recent hires that fit the mold include:

- **Chief Financial Officer Tom DiGiovanni** (hired in December), previously co-founder and chief financial officer at CannDescent, whose pre-cannabis resume



"It's really hard to parachute in an executive that has no cannabis experience. ... If you can find somebody that has the cannabis experience and also has mainstream experience, they're a gem."

—**Margot Micallef**
CEO of Gaby's

includes leadership positions at the Newhouse Development Group, a real estate and business consulting firm in Santa Barbara, California; REC Solar, an energy company in San Luis Obispo, California; and BDA, a marketing firm in Woodinville, Washington.

- **Chief Retail Officer Lisah Poore** (hired in October), previously senior vice president of Western Region sales at Dosist, whose pre-cannabis resume includes senior management posts at multinational cosmetics company Sephora as well as Starbucks.
- **Chief Marketing Officer Alexis Mora** (hired in January), previously chief marketing officer at Bloom Farms, whose pre-cannabis resume includes senior marketing posts at the Good Solutions Group, a Pasadena, California, marketing firm, and the Access to Therapy Network, a mental health services company in Encino, California.

“We always look for people that have cannabis experience. And there are more candidates now that have that experience. They might’ve made the transition from a regular mainstream industry into cannabis a year or two years ago,” said Peter Bilodeau, interim CEO at Harborside. “We look outside the industry as well, but if you have the industry experience, that always gives you a leg up because there’re still many issues within the industry—banking, regulatory issues—and it’s good when somebody understands those issues.”

Bilodeau cited Mora as an example: “She already understood the products, the marketability of those products and has quickly launched some new programs,” he said.

Margot Micallef, CEO of Gaby’s, a cannabis-infused products company with headquarters in Calgary, Alberta, and Santa Monica, California, said hiring managers with big-company mindsets can backfire. She cited the example of an executive her company hired last year



who had held senior posts at several large companies but still didn’t have what it took to be successful in cannabis.

“He failed miserably. What we came to realize after having him on for just about a year was that he was too mainstream. He was not startup-focused, and he was not open enough to the differences between CPG and cannabis. That was a real learning experience for us,” Micallef said. “We’re looking first and foremost in the cannabis world.”

She added: “It’s really hard to parachute in an executive that has no cannabis experience. ... If you can find somebody that has the cannabis experience and also has mainstream experience, they’re a gem.”

And because the recent layoffs have injected more qualified candidates into the cannabis talent pool, Micallef is hiring more aggressively before the best talent gets snapped up.

“It’s an opportunity to upgrade in different positions when you had less of an opportunity to hire ideal candidates. Now we’re constantly scouting who’s out there and what can they do to upgrade the skill sets that we have in the company.”

Acting now is wise, said Liesl Bernard, CEO of CannabizTeam, an executive search firm headquartered in San Diego.

“With the layoffs, there is more talent in the marketplace, but I also feel like the demand for talent is going to increase. I really believe it’s a temporary dip with companies doing layoffs and restructuring,” she said.

If Gaby’s can’t find someone with cannabis experience for a post, they next

seek out someone with startup experience rather than big-company experience.

Ed Schmults, CEO of Calyx Peak in Massachusetts and formerly CEO of FAO Schwarz toy company, agrees startup experience will help a cannabis company more than corporate experience at this stage of the industry.

“I’ve avoided the huge-company executives. If you’re working at a \$1 billion company, you’ve got a team of people, you’re getting great data, you’re getting reports. It’s a different world in cannabis right now, where you probably don’t have a huge team of people. You’re probably tasked with building the reports and trying to scrub the data to make sure the data that you’re using is accurate,” Schmults said.

“I actually look for people who’ve worked in small companies, who’ve had to wear multiple hats often in the same day, who are comfortable getting their own data and can kind of take charge and get (things) done. That, to me, is the test. Certain mindsets, certain types of skills are good at small-company stages. Certain are good at medium (sized companies)—and by medium I’m talking \$500 million to a couple of billion (dollars). And then certain people are really well-suited for big-company leadership. I look forward to hiring executives from multibillion-dollar companies when we get there, but right now I want someone who at least has some experience in a less-than \$100 million business and who’s used to being able to be nimble and agile, who can make decisions.” MBM



WHICH JOBS ARE HOT— AND WHICH ARE NOT?

By Omar Sacirbey

Cannabis industry executives with an eye to filling positions in their companies would no doubt love to have a crystal ball trained on the labor market.

While staring into the ball, industry executives will want to know: Which cannabis industry skill sets will be most in demand and command the highest salaries in the coming years, and which positions will be most in danger of getting axed?

While recruiters and company executives identified positions they believe will be either in demand or vulnerable to cuts—and, not surprisingly, their opinions didn't always line up—the most important

factor that determines whether a particular position is in danger isn't necessarily the type of job but the health of the company and where it might be overstaffed or understaffed.

“When Aurora (Cannabis in Alberta, Canada) laid off 500 people (in February), that was every type of position,” said Karson Humiston, CEO of Denver cannabis recruitment agency Vangst. The point? If a company is doing poorly, any post could be in danger, no matter what.

“It's less about the roles and more about the company and the company's cash-flow position, the runway, their path to profitability,” Humiston said. “If I was looking to join a company, I

would want to understand how much they have on hand.”

Holly Hamann, chief marketing officer at Würk, a Denver-based human resources software firm, agreed. “If you look at the companies that have had to lay off folks in the past six months, there's really an interesting variety of scenarios,” she said. “There just isn't any predictability, so it's hard to say which jobs are most vulnerable. The layoffs that have happened, happened because the companies had problems that forced them to cut jobs.”

Although a company's health is the ultimate decider in what positions are in demand and which are not, a few positions are hotter than others.



SIMPLY TAKE **CONTROL** OF YOUR GROW

Go beyond checking boxes. Take control.

THE SURNA SENTRYIQ™ CENTRAL PLANT CONTROLLER PROTECTS YOUR ENTIRE LINEUP.

- Use a comprehensive precision system to manage your most stable indoor facility climate—control tight temperature, humidity, and CO2.
- Access real time data on each room, and even specific zones within rooms.
- Monitor conditions in real time through a sleek digital dashboard complete with trending and alarms to take swift action.



TOP 15 U.S. METRO AREAS FOR CANNABIS JOB OPENINGS ON GLASDOOR

Rank	Metro	Number of Job Openings	Percent Share
1	San Francisco	197	13%
2	Los Angeles	181	12%
3	Denver	99	7%
4	New York City	66	4%
5	Seattle	56	4%
6	Boston	44	3%
7	Chicago	40	3%
8	Miami-Fort Lauderdale	38	3%

Rank	Metro	Number of Job Openings	Percent Share
9	Riverside, California	37	2%
10	Portland, Oregon	37	2%
11	San Jose, California	34	2%
12	Sacramento, California	30	2%
13	Las Vegas	25	2%
14	San Diego	23	2%
15	Santa Barbara, California	22	1%
	Other	583	39%

Source: GlassDoor

Copyright 2020 Marijuana Business Daily, a division of Anne Holland Ventures Inc.

Seven of the top 15 hottest markets for cannabis jobs are in California.

C-SUITE AND MANAGERIAL POSITIONS



Some recruiters say C-suite and managerial positions have become prime cost-cutting targets. “A lot of these companies had a really bad habit of going very top-heavy in the C-suite and VPs. So, we saw a lot of layoffs at the executive level because they had just hired on a lot of upper management, and those people weren’t rolling up their sleeves and helping out,” said Kara Bradford, CEO of Viridian Staffing in Seattle.

Janine Bush, president of the Cannabis Staffing Group in Massachusetts, agreed that C-suite executives face extra scrutiny today. “CEOs are being held accountable,” she said. “They are seeing the highest turnover.”

Meanwhile, Liesl Bernard, founder and CEO of CannabizTeam, an executive search firm headquartered in San Diego, sees greater demand for certain C-suite positions as companies go public and/or get bigger and expand into other states, thereby increasing reporting and compliance demands.

“A lot of the companies that are expanding are seeing the value of having a strong financial executive in place and more companies are investing in solid talent at the CFO level,” Bernard said. “Before, you

maybe got away with having a less sophisticated controller in place.”

Hamann from Würk agreed, arguing that there is a greater demand for managers—not necessarily more of them—but experienced ones.

Too many cannabis companies find themselves promoting entry-level employees such as budtenders to managerial positions when they don’t have managerial experience, and there are no experienced managers to train them.

“You see this vicious cycle where companies hire entry-level people and then promote them to managers because they don’t have enough management—but they also don’t have enough time to train those managers because leadership in most cannabis companies is spread really thin,” Hamann said.

Würk surveyed customers about what they wished they had more time to do, and managerial training was the No. 1 answer for most respondents.

“When you have managers that are not seasoned or don’t have experience or aren’t being trained to manage, they inherently are poor managers,” Hamann added.

“There is a middle-management shortage in the industry. There’s a shortage of seasoned management talent in the industry. There are retail or facilities managers who are seasoned and have expertise, and they’ve done this before. They have pattern recognition for how to manage people. They can see when processes aren’t efficient, and they can solve problems. We don’t have enough of those people.”

huber USA

Inspired by
temperature



★★★
3 Years*
Warranty Extension
www.huber-usa.com/register
* at registration – see website for details.
Register now!

-125°C ... +425°C

Temperature Control
for botanical extraction
and processing

www.huber-usa.com

MARKETING, SALES AND HUMAN RESOURCES

Like management, sales is an area where some recruiters predict growth and others are dubious.

Perhaps the positions most vulnerable to being cut are those in CBD sales, Bush said. While demand is high and many companies beefed up their sales forces, some companies have not been able to produce or obtain enough product to sell, leaving salespeople without enough to do.

“They don’t have enough product or a lot of the companies are screwing their salespeople by not paying them,” Bush said.

Humiston sees the opposite trend, saying, “The No. 1 area where we are seeing our clients hire is on the sales side.”

She cited two reasons for the demand: The need to win market share and brand-building. Both reasons require getting products on the shelf, and that requires sales teams.

“As brands expand into new states and expand their footprints in existing states, they are doing that through getting into additional retailers, and they’re doing that through very strong sales teams,” Humiston said.



Photo courtesy Seed & Smith

RETAIL

The value of retail positions is somewhat undervalued today, but smart executives will start paying attention to how they staff the last stop on the supply chain, because its importance is going to increase as more states add recreational markets.

“I think it’s very similar to what we saw in the wine and beer industry a few years ago. More and more expertise is required in the retail environment,” Bernard said.

The cannabis retail work environment is more regulated and challenging than most other retail environments, and that challenge will become increasingly layered as more products, a greater variety of customer personalities and more regulations hit the market. As the market makes retail more challenging, retail workers will be able to command greater compensation.

“I definitely see the sophistication and pay level increasing as that happens,” Bernard said about the future of cannabis retail positions.



Photo by Thomas Kelsey

 HAWTHORNE™
VERTICAL SOLUTIONS

IN PARTNERSHIP WITH  Spacesaver®

FORM FIT FUNCTION

MAXIMIZE YIELD | CONSOLIDATE SPACE | IMPROVE WORKFLOW

Because when you partner with the best, you can count on better form, fit and function to drive huge buds, big yields and greater returns.

Learn more at HGCVertical.com



RESEARCH & DEVELOPMENT



As the industry matures and poorly managed companies fail while well-run businesses emerge with capital to spend, recruiters posited that many businesses will spend that money on research and development—specifically, professionals from the biochemical sector. Some R&D teams are already in the industry, but only a handful of companies have been able to build their own R&D arms, Bradford noted. Later in the decade, there might be companies that specialize in cannabis R&D.

As more extraction and manufacturing companies emerge, they will need people familiar with extraction, fermentation, chemical engineering, working with CRISPRs and other sophisticated skills.

Federal legalization—if and when it occurs—likely would accelerate R&D hiring because legalization will mean more freedom to do research and come up with all sorts of new products and delivery methods. Federal legalization would mean more biotech firms entering the space, and they will need chemists, chemical engineers and similar types of professionals.

Salaries for these R&D jobs depend on whether they are entry level or senior level, the responsibilities assigned to each one, the market and other factors. An entry-level biochemistry post generally will earn around \$70,000 annually, Bradford estimated, while senior posts pay around \$150,000 per year.

BANKING ON DATA

Bradford sees a need for data analysts who can use data to evaluate what products are moving and where and why they are moving.

“People want data analysts that can take data, analyze it and make recommendations to leadership, especially given that resources are tight, and investors want to know that leadership is making informed strategic decisions based on data. We’re already seeing inquiries for those types of positions,” Bradford said.

For data people, the entry level salary is roughly \$55,000; for senior level—someone who can write code and develop their own inhouse tools—it is closer to \$125,000, she said.



BEST OF THE REST

Other in-demand positions include supply-chain and warehouse distribution managers, scientists and basic corporate roles such as finance and accounting, according to Scott Wells, chief people officer at Cresco Labs in Chicago. “Supply-chain warehouse distribution would be right at the top of my list,” he added.



Photo by Mark Blinch

“Anybody in a role that directly impacts revenue is the least vulnerable. Any of the jobs that are directly in cost-of-goods roles that companies can’t live without,” Humiston said. “It’s sort of hard to run the business without being able to produce the products.”

Bernard said a greater number of companies are investing in testing and that their manufacturing needs will increase as well.

“There are more and more products with THC, CBD and hemp hitting the market—and with that, manufacturing is definitely expanding ... and we’re seeing a higher demand in manufacturing talent. A lot of it is still manual labor, so we’re taking people from other industries like food, pharmaceuticals and cosmetics,” Bernard said. 

WE MAKE TABLETING EASY

CONSISTENT WEIGHT & DOSAGE
EASY BATCH REPORTING



MONTHLY
PAYMENT PLANS
STARTING AT
\$2,229/mo

WE KNOW CANNABIS.

When you buy a quality tablet press from Natoli Engineering you're getting more than a piece of equipment—you're getting a network of support. From research and development through production, our experts are with you every step of the way.

Contact cannabisinfo@natoli.com today and start the conversation with a trusted leader in tablet compression and a leading supplier to the cannabis industry.

Not sure where to start with cannabis tablets?

Join Natoli and other industry experts for a comprehensive tablet compression training course May 13-14 in Cypress, CA. Visit natoli.com/cannabis-training for more information.



YOU DEMAND. WE DELIVER.
NATOLI ENGINEERING COMPANY, INC.

natoli.com • +1 636.926.8900



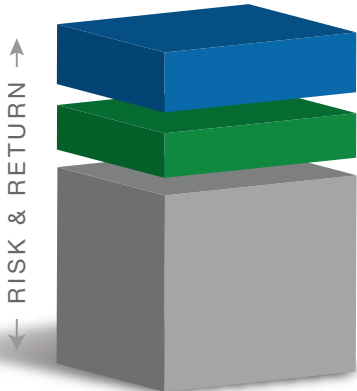


Preferred Equity

A New Model for Cannabis Industry Investment

The green rush continues unabated.

The roster of states legalizing adult-use recreational marijuana keeps growing, and with hemp now legal at the federal level, the market for CBD products has exploded.



The Old Model: Preferred Equity

- TOP 20% **Common Equity**
10-20% return
- MIDDLE 20% **Preferred Equity**
6-12% return
- FIRST 60% **Debt**
4-8% return

This is representative of a general real estate deal. Actual values vary from one deal to the next.

To fund their ambitions and grow their businesses, cannabis companies – from cultivators to distributors to dispensary operators – are increasingly turning to private equity investors for capital infusions to fund their operations and their acquisition of needed real estate for those operations. The total capital raised by the cannabis industry skyrocketed 460% (\$8.5 billion) from 2017 to 2019 alone, according to the 2019 Marijuana Business Factbook.

For cannabis investors and business owners alike, a new approach to preferred equity offers distinct advantages over traditional debt and equity financing to execute, grow, and capitalize on industry opportunities with less downside risk.

A New Approach to the Capital Stack for Cannabis Investment

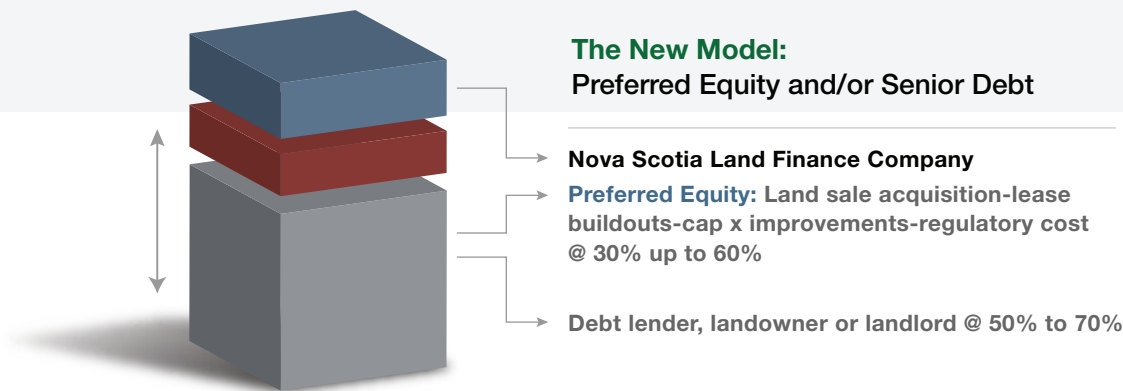
In the past, two financing structures, mezzanine loans and preferred equity investments, were the primary ways to recapitalize the capital stack and achieve higher leverage.

A new financing formula, called RE Preferred Equity, could help cannabis industry companies and developers bring additional capital in and achieve higher leverage on projects with lower costs and reduced risk compared to other equity and debt instruments.

Understanding RE Preferred Equity

A blended structure that combines elements of private equity, mezzanine debt, and traditional investment finance, the RE Preferred Equity formula involves making an equity investment in the property of the borrower. Although the investment is junior to the development debt lender, it is senior to the borrower's equity. The new formula also packages the financing into a single asset – the instrument equity joint venture (EJV). For cannabis companies needing money to fund operations and expansion, the formula has two main benefits, according to Gray Sheldon, managing partner at LaSalle Nova Capital Markets Chicago: reduced cost of capital and efficiency of time.

“Relative to mezzanine financing or short-term bridge loans, which can come at a cost of 8.99% to 10.99% plus loan point, origination fees, closing and third-party costs, it would behoove those in the cannabis industry to look at this particular model,” Sheldon says. “It has significant cost benefits to it.”



A Creative, Advantageous Financing Solution for Cannabis Industry Players

This new kind of financing eliminates the need for a mezzanine loan and could be one more tool in a cannabis company's toolbox when looking for creative financing solutions.

RE Preferred Equity investment also comes without many of the provisions found in a typical preferred equity or mezzanine financing structure. The new preferred equity formula contains:

- Lower cost of capital
- Reduced risk for borrowers and their investments
- Less likelihood of losing management or controlling interests

“In new construction or project acquisition, the loan exit options – loan takeout by refinancing or loan take by sale – are just about always subject to bank due diligence, loan cost and fees, cash out of pocket, bank credit enhancements, and bank loan

haircut,” Sheldon says. “This option is a low-cost, low-hassle alternative for cannabis industry players.”

New Times and a Growing Industry Require Rethinking Traditional Norms

To learn more about the RE Preferred Equity model for the cannabis industry, contact:

LaSalle Nova Capital Markets

123 LaSalle, Chicago, IL

Phone: 312.224.4160

Email: gray@LaSalleNovaCapital.com



Tools of the Trade

Cannabis trade groups can advance the interests of the industry and individual companies, but firms must be selective about joining

By Celene Adams







Berkeley Patients Group is a member of several trade associations and employs a public affairs officer to work with regulators, lawmakers and advocacy groups. *Courtesy Photo*

Membership in cannabis trade associations has skyrocketed over the past decade, thanks to the industry’s explosive growth. And many industry executives endorse such groups as a way to communicate business-related issues to lawmakers and regulators who influence policy.

Yet, while membership helps further the industry’s broad interests, what specific benefits does it offer to individual business operators? And how do you choose the right trade association to meet your needs? (See box on page 73.)

A decade ago, when the National Cannabis Industry Association was founded with 30 members, no such groups existed. Today, NCIA boasts nearly 2,000 member businesses in plant-touching and ancillary fields. There also are dozens of state-level and sector-specific trade associations, along with a handful of other national organizations, including the Cannabis Trade Federation and the Minority Cannabis Business Association.

“I’ve been involved in working with people in trade organizations for nearly 13 years,” said Sabrina Fendrick, chief public affairs officer with California-based Berkeley Patients Group, a medical



Sabrina Fendrick *Courtesy Photo*

cannabis dispensary established in 1999. “And some have really built themselves into incredibly impressive powerhouses.”

MEMBER BENEFITS

The opportunity to work on association subcommittees is often cited as an effective way to achieve specific business goals.

Bryce Berryessa, president of La Vida Verde, a craft-infused products company in Santa Cruz, California, said participating on the manufacturing subcommittee for the California Cannabis Industry Association enabled

EXECUTIVE SUMMARY

Membership in cannabis trade associations has surged in the past decade, reflecting the marijuana industry’s rapid growth. Membership helps advance industry interests and provides individual benefits such as networking and information sharing. But not every group is a good match. Here are highlights:

- Dozens of state-level and marijuana-specific trade associations have emerged over the years, along with a handful of national organizations, including the National Cannabis Industry Association, the Cannabis Trade Federation and the Minority Cannabis Business Association.
- Associations’ most important priority is political representation to present industry interests to state and federal lawmakers as well as regulators.
- At both the national and state levels, for example, cannabis trade associations have been able to sway legislators and influence public opinion about issues ranging from legalization to cannabis banking.
- While trade associations further the industry’s broad interests, dues-paying members will want to ensure the association also benefits their individual business objectives.
- Choosing an association to best meet your individual business needs requires due diligence, including reading the bylaws, analyzing the board’s industry experience and sounding out others about the group’s reputation.

the rollout of regulations in a compliant and effective way. The CCI’s network of members are all tackling the same issues and challenges, he said, and can collectively propose ideas, table issues and solve problems.

That collaboration alone is “invaluable,” Berryessa said. “Rather than having to pay third-party consultants or lawyers, we’re working with our peers.”

Collaboration also often leads to seeing things in a different way than would

GREENHOUSES

FOR ANY CLIMATE, ANY CROP



FOR OVER
40 YEARS
GROWSPAN HAS
BEEN HELPING
GROWERS

ENERGY-EFFICIENT DESIGNS

Save money on a monthly basis and maximize profitability.

EXPERT CONSULTATION

Work with GrowSpan Specialists to boost your business.

ENVIRONMENTAL CONTROL

Create the optimal growing environment 365 days a year.

IN-HOUSE SERVICES

Design, manufacturing and installation streamlines projects.



www.growspan.com
877.835.9996



Subcommittees offer members the opportunity to network with professionals doing the same job at other companies.

Courtesy Photo



be possible solely with staff. It provides an opportunity for competitors who usually are fighting “for the same spot on the shelf,” Berryessa said, to cooperate on issues related to Metrc, the state’s seed-to-sale tracking system, for example, or to figure out compliant ways to transport samples to dispensaries.

Associations also provide a centralized repository of key industry information, such as policy developments and changes to regulations. A designated individual gathers the information on a regular basis and shares it with members.

“Because the cannabis industry is so hyper-regulated, and it’s done on a state-by-state basis so differently, it’s really hard to keep up to date on some of the rule changes that are being talked about. A well-resourced trade group

... with somebody that’s keeping an eye on that and sending good updates for their members, is another really helpful aspect ... rather than every single owner monitoring that independently,” Berryessa said.

CHOOSING THE RIGHT GROUP

Regardless of how effective and comprehensive an association’s benefits might be, selecting an association to best meet your individual business needs requires due diligence. Cannabis companies, for example, should make sure the association is accurately representing its legal status and is aligned with their legislative priorities and objectives.

“There are a lot of groups that present themselves in how they brand and market and communicate as being

not-for-profit, when in fact they are for-profit entities,” said Ben Gelt, board chair and co-founder of the Cannabis Certification Council.

“There’s a lot of that. There are still other groups that have an entity that is a nonprofit, but they are also operating for-profit entities that are either identically or similarly branded,” he added. “So they leverage their nonprofit traction into for-profit consulting and other business.”

Gelt noted that he’s unaware of any trade associations that are directly misrepresenting their status and points instead to a handful of third-party industry affiliates he said are doing so.

However, he said, “I think groups like that still negatively impact the credibility of all true nonprofits and trades, as they muddy the waters.”

A NEW MASTERPIECE FROM

DAVINCI[®]



 **CLEAN**
All-Ceramic Vapor Path

 **COOL**
Adjustable Air Dial™

 **CONTROL**
Dosage Independent Of App



IQ2

PREMIUM DUAL-USE VAPORIZER

Built Responsibly Since 2012

greenlane

WHOLESALE ORDERS CALL
877.292.7660 | GNLN.COM

NOT FOR SALE TO MINORS



Further, he adds, “I would posit that all these groups ... compete for the same type of attention from the industry, which translates into dollars and support.”

Tom Howard, a Chicago-based attorney whose firm, Collateral Base, specializes in cannabis industry issues, said there are ramifications to joining an association that is either not aligned with your business goals or misrepresents itself in terms of its legal business status.



Thomas Howard *Courtesy Photo*

Other considerations include how much industry experience board members have and how the organization is structured.

“Who’s on the board, who’s on the subcommittees? What’s the point of those committees? And what are the association bylaws?” Howard said, adding that while it might not seem like the latter will affect you, having official bylaws and policies in place ensures the organization has procedures to keep it operating fairly, ethically and efficiently.

“Check the mission statement or first principles of the organization and go all the way up to the bylaws to see if those ideals hold true or not,” he said.

Further, ask whether you must pay for board membership and, if so, what you’re getting out of it. “If you’re going to be paying to play,” he said, “well, what am I paying for? How much of an audience am I reaching through your network?”

Other industry executives advise checking an association’s reputation and testing its customer service:

- Does the association have positive reviews? Are they recent?
- Are there errors in the content posted on its website?
- Is the chat feature on the website useful? Is calling the customer service line an efficient, effective process?

TIME AND MONEY

Trade associations don’t require active membership, but most members say the value they derive largely depends on participation. So, before joining, it’s a good idea to decide how much time you have to participate in subcommittees, write white papers, lobby on behalf of the group or simply attend the association’s social events.

“Passive membership is OK and is needed,” Fendrick said. “But if there is an issue that a company or individual is really passionate about, I think that (making) sure that concern or that message is relayed properly and articulated to the leadership requires some additional engagement.”

Deciding how much you can afford in terms of fees is also prudent.

Not everyone can afford to pay to play, said Brian Farmer, co-founder/director of certification services with the Cannabis Conservancy, which certifies marijuana producers’ sustainability practices and provides educational workshops through the NCIA and a variety of small- to medium-sized co-ops and cultivator associations.

“One of the things I’ve seen is that, typically, trade associations get set up, and the barrier to entry is so high in terms of what they want to charge their members that they’re not actually able to grow.”

The Big Picture

Cannabis trade associations’ most important priority is political representation to telegraph industry interests to state and federal lawmakers as well as regulators, said Sabrina Fendrick, chief public affairs officer with California-based Berkeley Patients Group, a medical cannabis dispensary established in 1999.

This is because the cannabis industry has needs and challenges that are distinct from other industries—think access to banking services and federal prohibition, among other issues—so government officials often require a significant amount of education.

“Cannabis is a unique policy issue, in that it was born out of grassroots activism and evolved into an industry,” Fendrick said. It has “very unique political challenges, because it’s dealing with issues of federal prohibition and state-by-state reform and public opinion. ... Associations show their statewide elected lawmakers ... that they are a growing economic force they need to pay attention to.”

At both the national and state levels, for example, cannabis trade associations have been able to sway legislators and influence public opinion.

“Since 2014, we’ve been successful in fighting for the inclusion of language in annual appropriations bills that prevent the Department of Justice from using its resources to interfere in state medical cannabis programs,” said Morgan Fox, media relations director for the National Cannabis Industry Association. “Most recently, NCIA was instrumental in the historic passage of the SAFE (Secure and Fair Enforcement) Banking Act in the U.S. House of Representatives.”

Fendrick points to Florida as an example of similar accomplishment at the state level. “The Tallahassee-based Medical Marijuana Business Association of Florida is one of the oldest and most highly networked industry groups in the state,” she said.

“There’s lots of good examples,” she added. “Florida has some really conservative Republican lawmakers that one would never expect to take a position on cannabis. ... But because there’s such a strong, influential industry down there, you’re seeing people that, historically, you would never see come over to this side.”

Republican state Sen. Jeff Brandes, for example, filed a bill in January to legalize adult-use marijuana in Florida. And in the U.S. Congress, two Florida House Republicans co-sponsored the SAFE Act, Fendrick noted.

– *Celene Adams*



DisplayDispensary.com™


— Display Solutions for the Cannabis Industry —



SHOW**CASES** in stock for for immediate delivery.

SEE YOU IN DETROIT  **CannaCon** VISIT US AT BOOTH #600

FLOWER BOX • PLANTER BOXES • SHOWCASES • DISPLAY EASLES • DISPLAY RISERS

877-7DISPLAY | sales@displaydispensary.com | [DisplayDispensary](#) 



Marcela Jarquin represents the Marijuana Industry Trade Association of Arizona at MJBizCon Associations Day in December. Photo by Soliman Productions

“Small- to medium-sized growers,” Farmer said, “don’t see the value in trade associations per se. So they end up creating their own co-ops or other kinds of ... farmer-advocacy associations.”

Berryessa, too, noted that association fees can be daunting—not only due to the size of a prospective member’s operation but also because of fluctuating market conditions.

“The majority of businesses in (California) are experiencing cash-flow issues and stagnant or negative growth because of the inability of local governments to issue licenses for retail,” he said. “Often, when businesses are having to make hard decisions, they’re cutting what they view as nonessential expenses, and so the trade associations can be one of the first things to get cut.”

Cutting association membership from the budget, however, is probably a mistake, Berryessa said. “Trade associations ... are going to be the most effective at implementing change and bringing issues to the forefront for politicians.”

Association dues vary. However, many associations have scaled participation rates, or a tiered system of dues. The NCIA’s annual dues, for example, range from \$1,000 for a “regular” membership that, along with other services, provides discounts on trade-show tickets, access to a sales-tracking platform and eligibility to participate in NCIA subcommittees, to \$5,000 for an “industry leader” membership, which offers all of the above plus “curated monthly insight reports” and eligibility to serve on the NCIA’s policy council.

“There’s certain benefits that come with higher levels of membership,” Berryessa said. “But even if it’s just a basic level of membership, it still gets you access to the network, and the enormous amount of information, and the ability to participate on subcommittees.”

Joining a trade association is fast becoming as much a tool of the trade in the cannabis industry as it is in other industries. But, like most other aspects of doing business, you tend to get out of it what you put in. 

Clear Value?

Many executives agree that the value of cannabis trade associations—both at the broad industry and individual operator levels—is worth the time and money invested. But some involved in promoting participation in such associations say the perception of value isn’t yet widespread.

“There’s definitely criticisms by companies and people that reform isn’t happening fast enough,” said Sabrina Fendrick, chief public affairs officer with California-based Berkeley Patients Group, a medical cannabis dispensary established in 1999.

“I’d say those who don’t fully understand the decades-old socio-political context of the reform movement are probably impatient because it’s not happening on the timeline that they expected. But, looking at it through the lens that I have, all things being equal, reform is happening at an incredibly fast pace.”

She pointed to her participation in the National Cannabis Industry Association, whose mission of federal policy reform helped advance the Secure and Fair Enforcement (SAFE) Banking Act through the House in September 2019, as an example. “The number of years that they worked on that and the coalitions that they built was just inspiring. And it’s a hope that we can achieve the same kind of broad-based coalition building on the state level,” she said.

Yet while supporting trade associations is part of doing business in every other industry, “That kind of infrastructure in cannabis is still under development,” said Ben Gelt, board chair and co-founder of the Cannabis Certification Council. “The aspiration is that we get to a point where the value is ... clear and obvious.”

– Celene Adams

Membership Checklist *by Celene Adams*

When it comes to trade associations, many cannabis industry officials understand there's strength in numbers. But the benefits to individual operators—along with knowing how to choose an association to meet your business needs—might be less clear. Guidelines to finding a fit, experts agreed, generally involve weighing the following:

- ❑ **Legislative Priorities and Objectives:** Do the association's mandate or ambitions align with your business goals? Check the mission statement or first principles of the organization and read the bylaws to see if those ideals hold true or not.
- ❑ **Legal Status:** Is the association accurately representing itself? For example, is it touting itself as a nonprofit but actually operating as a for-profit organization?
- ❑ **Industry Experience:** How much experience do the board members have in the cannabis space?
- ❑ **Subcommittees:** What's their purpose—advocacy or networking, for example—and who sits on the panels?
- ❑ **Operations:** Are there bylaws and policies in place to ensure ethical operations?
- ❑ **Customer Service:** Test it. Is the chat feature on the website useful, for example? And is calling the customer service line an efficient, effective process?
- ❑ **Reputation:** Does the association have positive, recent reviews, and is the content it posts accurate? Ask others involved in the industry.
- ❑ **Fees:** Can you afford monthly payments? Do you have to pay to be a board member or sit on a subcommittee?
- ❑ **Time:** How much time are you willing to invest? Much of the benefit you reap will depend on whether you are a passive or active member. Active membership involves participating in such activities as lobbying or joining a subcommittee.





STAND OUT

The best way to stand out on a crowded shelf is to utilize the best print capabilities available and create a visual representation of what your brand stands for.

FULLY CUSTOMIZABLE

Spot UV, Foil, Embossing, Spot Touch, Glossy + Matte Materials, Custom Inserts, and more!



CHILD-RESISTANT ASTM CERTIFIED

2-Step unlocking
folding carton



ECO-CONSCIOUS COMPOSITION

Made from 99%
biodegradable
materials



DESIGNED, CREATED + ASSEMBLED

in the USA

PATENT PENDING
SUSTAINABLE
CHILD RESISTANT
MADE IN THE USA



Available Now at
EZLOCKUSA.COM



Proudly Designed + Manufactured Right Here in the USA



By Omar Sacirbey

Research Project

How two companies got medical cannabis studies approved by the FDA





CTPharma now has three studies with the Yale School of Medicine, one of which is a “groundbreaking” FDA-approved clinical study to examine stress and pain relief in human patients. *Courtesy Photo*

The U.S. Food and Drug Administration is approving a growing number of applications from cannabis companies looking to conduct clinical trials studying medical marijuana. That development could lead to multiple cannabis-based medicines—including flower—receiving FDA approval to be commercialized and sold within the next five years.

While attitudes might be changing at the FDA, obtaining agency approval and launching cannabis studies remain extremely difficult. But it’s not impossible, as a handful of companies have demonstrated, and certain steps can smooth the way.

In June 2018, GW Pharmaceuticals’ Epidiolex, used to treat certain forms of epilepsy, became the first cannabis-plant-based medicine to receive FDA approval for commercialization (a small number of FDA-approved synthetic cannabis drugs are sold by prescription). But Cambridge, England-based GW might not be alone for long.

CT Pharma, a licensed producer in Connecticut, and Tetra Bio-Pharma, a biopharmaceutical company in Ontario, Canada, both have started FDA-approved clinical trials they hope will result in cannabis drugs approved by the agency. Other major cannabis

EXECUTIVE SUMMARY

Anti-seizure medication Epidiolex became the first cannabis-based medicine to receive approval in the United States in 2018. Since then, the U.S. Food and Drug Administration has approved a handful of applications for clinical trials to study medical marijuana. Companies that have gotten the FDA’s blessing for studies recommend that others:

- Attend international cannabis science conferences to network with universities, hospitals and pharmaceutical companies.
- Find a researcher for the team who already has successfully petitioned the FDA to conduct drug-development studies.
- Keep detailed records of cultivation practices, cleaning logs and facility layout as well as the results of potency and stability tests.
- Know that the University of Mississippi is the only FDA-approved source of cannabis for study. If you plan to use another source, be prepared to get clearance from the U.S. Drug Enforcement Administration.
- Be aware that regulators will want to know as much about the safety of your drug-delivery method as the drug itself.

companies, including multistate players Columbia Care and Vireo Health—plus British Columbia-based producer Tilray—also are sponsoring FDA-approved studies focused on the safety and/or effectiveness of medical cannabis.

Companies that have secured the FDA’s blessings have taken unique paths. But there are several shared strategies among them:

- Research, rather than a focus on producing recreational products.
- A researcher on the team who already has successfully petitioned the FDA to conduct drug-development studies.
- Extensive testing and data collection.
- Wide-ranging and meticulous recordkeeping.
- Transparency.

Getting FDA approval to study cannabis requires time, patience and capital. But the potential payoff that comes with having an FDA-approved pharmaceutical product on the market could rival or even dwarf what the most successful recreational marijuana companies are making. Marijuana Business Magazine spoke with two cannabis companies about what it takes to launch an FDA-approved study.

CT PHARMA'S CANNABIS-TO-TABLET BREAKTHROUGH

CT Pharma is collaborating with the Yale University School of Medicine on a new study exploring the efficacy of cannabis-derived tablets to treat stress and pain. Notably, the tablets will be made from cannabis flower produced at the firm's facilities in Connecticut.

CT Pharma Chief Operating Officer Rino Ferrarese said that, to his knowledge, this is the first time cannabis grown by a state-licensed producer in the United States has been used in an FDA-approved study. Until now, the cannabis flower and oil used in FDA-approved studies have either been grown at the University of Mississippi (the sole federally approved grower in the United States), produced synthetically or imported.

CT Pharma was founded in 2014 with pharmaceutical ambitions. Not satisfied with being a license holder in a limited market, CT Pharma's leaders dispatched ambassadors to international cannabis science conferences while networking in a local landscape rich with universities, hospitals and pharmaceutical companies.

That networking led them to Dr. Rajita Sinha, a Yale University School of Medicine professor who already had done clinical trials with cannabinoids and had past successes getting study approval from the Institutional Review Board (IRB) of the Yale medical school. An IRB, found at many research institutions, must approve a researcher's study proposal before it can be submitted to the FDA for consideration.

"Meeting someone with experience getting cannabinoid formulations through IRB to approval—that was a really big deal," Ferrarese said.

CT Pharma started with an oral spray formulation that the FDA approved for study in 2017. But after several months, researchers decided that oral sprays were less than ideal for patients and health providers and tablets were deemed a better choice.



Dr. Rajita Sinha

WHAT THE FDA WANTS TO SEE

While CT Pharma had produced thousands of cannabis tablets in its facilities and had extensive safety and efficacy records, Sinha wanted to work with tablets of different ratios—10 milligrams of THC and 40 milligrams of CBD, for example—which required CT Pharma to run a new battery of tests relating to safety, contaminants, packaging, stability and degradation.

Because the FDA was familiar with the cannabinoid formulations developed by Sinha, the agency already knew they were safe to be tested on human subjects. The FDA was more interested in CT Pharma's cultivation, extraction, manufacturing and packaging processes—namely, ensuring that they are performed under current Good Manufacturing Practice.

"They wanted to see our batch records for our cultivation processes; they wanted to see our cleaning logs, our facility layout. That's what they wanted from us as a manufacturer," Ferrarese said. "To get what they needed, they requested potency and stability results. They wanted to see microbiology results (showing) that it didn't become contaminated over time. But really they were worried about degradation and contamination, namely purity and quality."

Interventional vs. Observational Studies

Observational Study

A clinical study in which participants identified as belonging to study groups are assessed for biomedical or health outcomes. Participants may receive diagnostic, therapeutic or other types of interventions, but the investigator does not assign participants to specific interventions (as in an interventional study).

These studies do not lead to new drug approvals.

Interventional Study

A clinical study in which participants are assigned to receive one or more interventions (or no intervention) so that researchers can evaluate the effects of the interventions on biomedical or health-related outcomes. The assignments are determined by the study protocol. Participants may receive diagnostic, therapeutic or other types of interventions.

These studies can lead to new drug approvals.

Source: National Institutes of Health

"What happens to this tablet after six months, after a year? Is it still the potency that we formulated? Because that's going to impact the patient's experience and the study outcome. We had to make sure that each formulation in the study was standardized and consistent. Compiling all the information and documentation took about a year. It took the FDA about four to six weeks to come back and say, 'Your study may proceed,'" Ferrarese said. CT Pharma did this for both the spray and the tablets, he added.

While the FDA requested "reams and reams" of information from CT Pharma, no one from the company had to meet with FDA officials; that left the discussions up to Sinha and other Yale researchers. In early November 2019, subjects were recruited for the study, which was



supposed to start in January and last eight weeks.

In addition to getting FDA approval for the study, CT Pharma needed a research license from the Connecticut Department of Consumer Protection, which conducts regular visits at CT Pharma.

“There were many moving pieces to bring this together,” Ferrarese said.

CT Pharma’s success attracted investments from private equity groups Tuatara Capital and Bonaverde Capital, which acquired the cannabis outfit about 18 months ago. “They were attracted by the research aspect of the company and the potential of a new drug application,” Ferrarese said.

Ferrarese believes the end result will be an FDA-approved tablet that will be on the market within five years. The estimate is based on the time between when the FDA first approved GW Pharmaceuticals’ Epidiolex product for study (2013) and when the agency approved Epidiolex for market (2018).

TETRA BIO-PHARMA’S SMOKE STUDY

Tetra Bio-Pharma CEO Guy Chamberland had worked with FDA regulators since 1995, but despite his professional experience, “the FDA wasn’t too happy” when he first broached the idea of bringing to market a smoked cannabis drug to treat pain in end-of-life cancer patients in June 2016. But after several meetings with FDA officials and a rule change that gave him an opening, Chamberland succeeded. How did he do it?

In November 2016, the FDA revised guidelines about drug-delivery devices that Chamberland believed would allow him to characterize pipes and vaporizers as delivery devices, with cannabis smoke and vapor (as opposed to dried flower) serving as the drug.

In a meeting with the FDA shortly after the device regulations were



Guy Chamberland
Courtesy Photo

revised, “we laid out how we would develop and bring to market a prescription drug that was going to be smoked with a pipe and dried bud,” Chamberland said.

“We laid down our full plan for the Phase 1 trial and the trials that would be Phase 2 and 3, and then all the way to the market. We made some proposals to them on the toxicology requirements as well as further regulations (and) how we saw the device being approved,” he said, adding that the FDA provided Tetra Bio-Pharma with more than 29 pages of detailed guidance. “The FDA laid down what they expected not to see in the smoke. And they were the ones that pushed us to go out there and really quantify everything that was entering the patients’ lungs and really have a look at it. So we did achieve that, and they wanted us to relate that back to the fresh plant, which we did.”

In the Phase 1 trials, conducted in Canada, volunteers smoked and vaped three varieties of cannabis provided by Ontario-based Aphria while researchers measured what was in the smoke and vapor—and whether it was safe. Chamberland and other Canadian researchers set up their studies to comply with FDA guidelines so they can show that previous studies have been done according to the agency’s standards.

“We amassed a massive amount of clinical data in volunteers and in the lab, and it gave us a very clear insight into how cannabis works in patients. And that’s accelerated our program to where we are today,” Chamberland said.

Some of the most pivotal data had to do with smoke and vapor composition, dosing and mycotoxins.

“In that research, we ended up discovering some very unique aspects to smoke versus vapor. We described from a regulatory point of view that vaped cannabis is different

Steps for Cannabis Drug Studies

Step 1: Sponsor obtains number to request a pre-Investigational New Drug (IND) meeting. A pre-IND meeting is an optional opportunity to obtain U.S. Food and Drug Administration guidance on sponsor research plans and required content for an IND submission.

Step 2: Imported controlled substances are subject to U.S. Drug Enforcement Administration authorization. The sponsor contacts the National Institute on Drug Abuse or another DEA-registered source of cannabis to obtain information about the specific cultivars available, then includes all necessary information in the IND application.

Step 3: The sponsor might contact the DEA to discuss Schedule 1 drug research plans that might require DEA inspection for an investigator and study site licensure.

Step 4: If the selected raw material or drug substance manufacturer holds a Drug Master File, the sponsor must obtain a Letter of Authorization. Alternatively, an IND submission would need to contain all data characterizing the study drug and ensuring it is safe for use in humans.

Step 5: The sponsor sends a copy of the IND application and clinical protocol, including a Letter of Authorization, to the FDA.

Step 6: The FDA reviews the IND application. The sponsor must wait 30 calendar days after an IND submission before initiating any clinical trials, unless the FDA notifies the sponsor that the trials might proceed sooner. During this time, the FDA has an opportunity to review the submission for safety to ensure that research subjects will not be subjected to unreasonable risk.

Step 7: If the IND is authorized by the FDA as “safe to proceed,” the sponsor may submit their clinical protocol registration application to the DEA to obtain protocol registration. Once this is received, the sponsor obtains cannabis and/or cannabis-derived substances from the National Institute on Drug Abuse or another DEA-registered source to begin the study.

Source: U.S. Food and Drug Administration

ecodyst

Accelerating the
extraction process

ELIMINATE YOUR SOLVENT RECOVERY AND DECARB BOTTLENECK WITH ecochyll

Fastest evaporation rates under mild conditions

Models: 200L, 100L, 72L, 50L, 22L, 12L, and 5L



Advanced self-cooling technology

•
Keg receiving option available

•
Stationary true volume flask

•
Convenient bottom oil drain

[Ecodyst.com](https://www.ecodyst.com)

info@ecodyst.com



Ecodyst is the global leader and creator of the next generation of rotary evaporators used by scientist and hemp processors. Using a proprietary and innovative self-cooling technology, the EcoChyll solvent recovery and decarb equipment has eliminated the use of dry ice, bulky chillers, and chilling fluid/antifreeze medium. EcoChyll is more efficient by having smaller footprint, low energy consumption, low labor cost, and high evaporation rates." Our disruptive technology has set new standards worldwide for scientific instruments.



than smoked cannabis. They're two different drugs. There's a change in the cannabinoid profile that's different between smoked and vaporized. There're also differences in the terpenes," Chamberland said. Essentially, if you take one bud, break it in half, smoke one half and vape the other, the cannabinoids, terpenes and amounts they are distributed in will be different in smoke and vapor.

Tetra also studied the doses patients could handle without suffering adverse side-effects such as fainting or being too intoxicated to speak. Researchers also found that subjects rapidly developed a tolerance to cannabis and, if they slowly exposed subjects to the drug over five days, they could avert side-effects.

"That's key, because if you're hitting patients with cancer and palliative care, you don't want them to stop taking the medication because of adverse events," Chamberland said. "We were able to show in volunteers that we could eliminate that with a simple titration strategy that we now include in all of our trials."

Tetra Bio-Pharma also discovered, shortly before they planned to submit an Investigational New Drug application (see "Steps for Cannabis Drug Studies"), that the flower they were using had developed mycotoxins during the drying and curing processes. That forced them to shut down the study.

"Until we had ... a better way of ensuring that the lots were mycotoxin-free, we terminated the project. We also shared that with the FDA, so they were aware that we had done that. We voluntarily sent them all the information on the mycotoxins," Chamberland said.

Rather than abandoning the study altogether, Tetra used the opportunity to tighten its contaminant monitoring protocols. The company also developed new mycotoxin-prevention-and-monitoring strategies, such as sterilizing grow rooms after harvests and using DNA sequencing to identify fungus genes.

When Tetra presented this data to the FDA, the agency allowed the trial to be



As part of its research into cannabis medicine, Tetra Bio-Pharma compared the contents of smoke and vapor delivery methods. *Courtesy Photo*

"reactivated," granting the company an Investigational New Drug application for a Phase 2.

"We were transparent; we showed them everything we knew about mycotoxins and how we now control them, and they came back and said you can move forward. That, to me, is really positive," Chamberland said. "Because we were transparent, we burst the bubble. We said, 'We discovered this quality problem, here's how we address it, here's how we now ensure patients are safe.' And they said, 'Go.' It would have been a great time for them to say, 'Nope, take a hike.' But they didn't. That shows there is an opening from the FDA to bring cannabis smoked drugs to the market."

There are several more steps for Tetra to bring cannabis to the pharmaceutical market, including further studying the composition of cannabis vapor and testing these products against placebos. These tests will be conducted by Dr. Sue Sisley, a pioneering physician researcher based in Arizona. Chamberland is confident that cannabis will easily beat the placebo, because patients—usually

sooner rather than later—figure out when they are not high that they are on the placebo.

"That creates what we call a bias. And the patients will be reporting more negatively when they realize they're on the placebo. The FDA and its northern counterpart, Health Canada, know about this bias, but there's no choice, you have to do that. Morphine, opioids and other drugs went through the same thing," Chamberland said.

He believes the FDA approving cannabis to treat cancer pain is more of a question of when rather than if.

"We've developed this as any other drug, so when we talk to the FDA (or) Health Canada, we basically need to have data for each regulation they have. We've never requested a different path from the classic path for drugs," Chamberland said. "The next stage is comparing it once and for all in the pivotal trial against placebo. And the next result, if it works, is that it's there for patients. That, to me, is an amazing achievement for our company ... and that would be a major success for the cannabis industry." MBM

YOUR SAFE PRIVATE LABEL SUPPLIER



STAFF, 2,500+
MANUFACTURE, 300,000 FT²+



LAB, 21,500 FT² +
R&D EXPERTS, 300+



ISO 9001, 14001
PASSED GMP CERTIFICATION



PASSED CA
HEAVY METAL TEST



@velxtech



www.velxtech.com

VELIX





BUILT TO ACCELERATE GROWTH

Fueling the growth of visionary cultivators for more than 40 years with the brands that matter. Hawthorne delivers performance-based products from iconic brands for a total growing solution.



 HawthorneGC.com

 HawthorneGC.ca



GAVITA

Since 1986

GAVITA[®]
HORTICULTURAL LIGHTING

 **HAWTHORNE**[™]



BEYOND IMPOSSIBLE

Sourcing local ingredients and getting shelf space remain challenges for hemp-based food producers

By Anna Robaton-Winthrop

Victory Hemp Foods of Carrollton,
Kentucky, processes hempseed
into hemp hearts, oil and protein.
Courtesy Photo



Necessity, they say, is the mother of invention. Just ask Carla Boyd, who first started cooking with hemp ingredients to manage food allergies and eventually launched a company built around her recipes.

A lot has changed since Boyd founded Evergreen, Colorado-based Hemp Way Foods in 2014. For starters, the 2018 Farm Bill legalized the regulated production of hemp, which previously had been treated as a quasi-controlled substance.

The new legal landscape, which has led to a surge in hemp production, and growing consumer demand for plant-based foods have given rise to a new crop of hemp-based food products ranging from gelato to protein bars. National grocer Whole Foods Market, for example, offers tea, protein powder, granola and milk made from hemp.

To some extent, firms such as Hemp Way Foods also are riding a wave created by the Impossible Burger, the plant-based faux meat patty that caused a media frenzy with its popularity.

“The Impossible Burger has definitely helped (my business) because it has brought more attention to plant-based foods,” said Boyd, who nonetheless shies away from tying her firm’s signature product, a handcrafted hemp burger, too closely to the Impossible Burger.

“My product,” she noted, “is a meat alternative, but it’s not created to have meat flavors. So, it’s very different from the Impossible Burger.”

For all the apparent potential of hemp-based foods, the market is still dominated by cottage-industry businesses, according to Boyd, who is among a group of entrepreneurs leading the way by breaking into new retail channels, forging relationships with suppliers and, in some cases, developing new business models. Marijuana Business Magazine spoke with leaders in the hemp-based food market about challenges they’ve faced and how they’ve overcome hurdles to expand their collective reach.

 **EXECUTIVE SUMMARY**

The legalization of industrial hemp cultivation in the 2018 Farm Bill created a surge in hemp planting across the United States. The shift comes at an opportune time, as demand for plant-based food products such as the Impossible Burger have hit an all-time high. Entrepreneurs considering whether to join the hemp food craze should consider:

- Hempseeds are cheaper to purchase than hemp hearts, protein and seed oil. But processing equipment adds another layer of cost.
- Consider developing a farmers-market following before trying to get shelf space at brick-and-mortar stores.
- Grocery stores are highly selective when deciding to carry new products, and many of the larger chains demand “slotting fees” of up to \$25,000 per item per chain. Touting the local nature of your food item is one way to try to avoid slotting fees.
- Be ready to pivot from your original offerings if consumers are not making repeat purchases.

THE BATTLE FOR SHELF SPACE

Breaking into grocery stores isn’t easy, especially for upstart manufacturers. Retailers tend to be highly selective about which new products they’re willing to carry; in many cases, manufacturers must pay “slotting fees” to get their products on store shelves. Slotting fees, a form of pay to play, help retailers compensate for the fact that many new products fail before catching on with consumers. But the fees can be hefty—sometimes costing \$25,000 per item per chain—and, of course, difficult for small businesses to absorb.

“Shelf space has been a challenge,” Boyd conceded. “For a company like mine, (slotting fees) are next to impossible to afford.”

She has managed to convince grocery stores to eliminate slotting fees for her products by appealing to their desire to buy local. The local-food movement has become big business, and supermarkets, including massive chains such as Walmart, are expanding and marketing their locally grown and produced offerings. The U.S. Department of Agriculture offers grants to promote local foods, and many states fund programs that market food and agricultural products grown, raised or processed locally.

FLEXIBILITY IS KEY

Getting your products on store shelves is only half the battle. To succeed in what’s likely to become a more crowded market, hemp-based food manufacturers must be nimble and willing to adjust when things don’t go according to plan, said Chad Oliphant, co-founder of the Hemp Food Co., whose signature product, Hempé, is sold in about 400 stores nationwide (including Wegmans, Fairway Market and Whole Foods locations) and online via Amazon and LuckyVitamin.

Oliphant speaks from experience. He and his wife/business partner, Sarah Yancey, got their start in the food business producing tempeh, a traditional Indonesian product made



Chad Oliphant *Courtesy Photo*



Chad Rosen founded Kentucky-based Victory Hemp Foods. *Courtesy Photo*

from fermented soybeans. Their original tempeh product was unpasteurized and had to be frozen for shelf life. But customers don't tend to look for tempeh in the freezer aisle. Oliphant and Yancey also found that many shoppers who purchased the product would bring it home, stick it in the freezer and forget about it, which put a crimp in their repeat business.

They eventually opted for pasteurization, which meant the product could share shelf space next to tofu and other tempeh brands that don't require refrigeration. Oliphant said sales took off as a result of the change.

"When I got started, I was a purist with regards to tempeh. I wanted to provide the most authentic tempeh product I could, but that wasn't necessarily what the market was looking

for," explained Oliphant, who encourages fellow entrepreneurs to "live from your vision but listen to the market."

INGREDIENTS MATTER

Hemp farming has taken off since the passage of the 2018 Farm Bill, but food manufacturers still face certain limitations when it comes to sourcing ingredients.

Boyd, for instance, figures her firm could save money by buying hempseeds directly from farmers and dehulling them—with the proper equipment, of course. But she prefers the ease and peace of mind that comes with buying hemp hearts (shelled hempseeds) from Colorado Cultivars.

The Boulder, Colorado-based firm grows and sells hemp and offers a wide range of wholesale hemp products, including hearts, protein and seed oil.

It uses organic farming practices and regularly tests its products for purity and potency. The company also tests its food products to ensure they don't contain cannabinoids, which have yet to be approved by the U.S. Food and Drug Administration for use in food products.

"I'd probably never go to an independent farmer without going over very strict prequalification work," said Boyd, whose hemp burger is sold in 10 stores and 10 restaurants in Colorado.

While many food manufacturers don't buy hemp directly from small, independent farmers, they are turning to firms such as Victory Hemp Foods, which buys hempseed from farmers or small cooperative farming groups and processes it into hearts, seed oil and protein for use in food, skin-care and other types of products.



Hempé is sold in about 400 stores including Wegmans, Fairway Market and Whole Foods locations.
Courtesy Photo

The company, founded in 2016, has developed processing technologies that address one of the biggest problems associated with using hemp proteins in food products—their bitter taste, or what founder Chad Rosen calls “sensory challenges.” The Carrollton, Kentucky-based firm expects to purchase 1 million acres of hemp by 2030.

“Customers want fried chicken without the feathers, fish without the fins and burgers without the beef,” said Rosen. “So food manufacturers need some kind of plant substrate to make that happen. That’s where hemp protein fits in well, if it’s processed in a way that avoids incorporating those astringent tannins.” **MBM**



Carla
Boyd

Beyond Bootstrapping

Despite all the hype surrounding plant-based products, many makers of hemp foods are still trying to bootstrap their way out of the cottage-industry food scene.

Even Colorado-based Hemp Way Foods, one of the most-established players in its sector, has had difficulty attracting outside investors because of its relatively slow rate of growth. Founder Carla Boyd says the company earns a healthy profit margin of 30% to 40% on its products but has yet to generate more than \$100,000 in yearly sales. That’s been a bitter pill for potential investors to swallow.

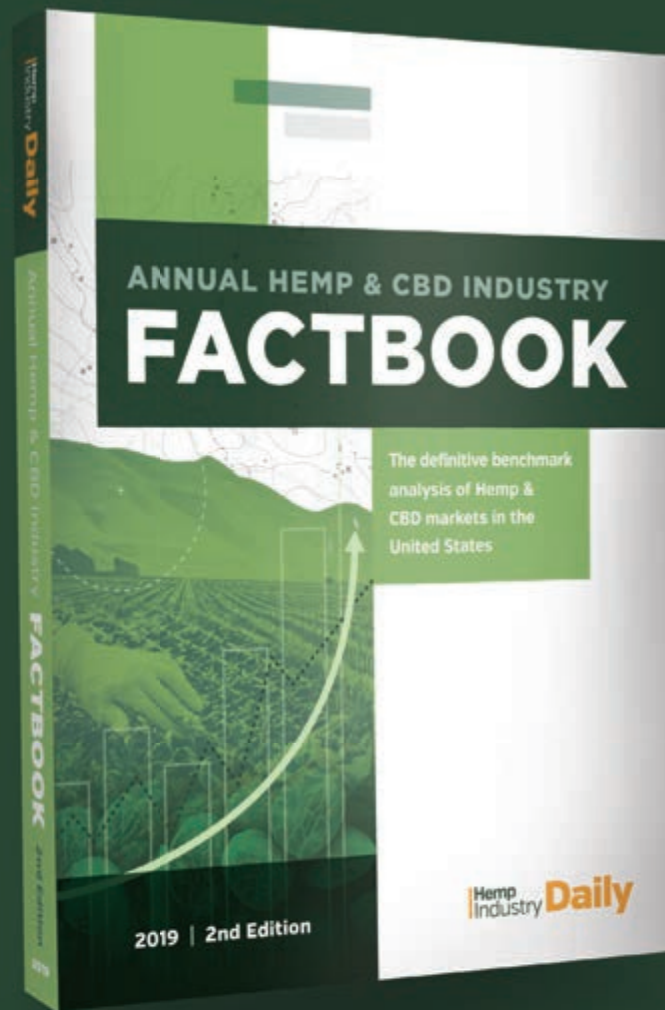
Consequently, Boyd has come up with a different plan to kick-start growth. With the help of an outside consultant, she’s working to develop a franchise model that would essentially replicate her business (recipes and all) in other states, allowing franchisees to market themselves as local producers and potentially avoid supermarket slotting fees, among other benefits.

As she ponders the next phase of growth, Boyd is also teaching a class through the Women’s Cannabis Chamber of Commerce on how to launch a hemp-based food business. She hopes to help aspiring entrepreneurs learn from her missteps and encourage them to seek help from experts.

“It’s hard on a budget (to hire outside consulting help), but I would have saved hundreds of thousands of dollars—and a lot of heartache—if I had done that from the beginning,” she said.

– Anna Roboton-Winthrop

SEE THROUGH THE HEMP & CBD HYPE WITH ALL THE FACTS, INSIGHTS AND STATISTICS.



- Key trends impacting hemp & CBD business opportunities
- The most up-to-date data on state and federal regulations
- Benchmarking statistics including acreage and seed costs
- Reliable projections for the surging CBD market

Purchase now at HempIndustryDaily.com/NoHype

Sponsored by:



Brought to you by:





The fixtures at Common Citizen utilize black, white and natural wood. *Courtesy Photo*

Not by Design

A Michigan dispensary wins an international design award, relies on a ‘human-centric blueprint’ with an indoor cafe

By *Celene Adams*

When Flint, Michigan-based Common Citizen set out to transform a dilapidated former sports bar into a dispensary, it didn’t anticipate becoming the first cannabis retailer to receive a prestigious design award. Yet in December, the International Council of Shopping Centers (ICSC), a retail real estate association with 63,000 members in more than 100 countries, awarded Common Citizen its 2019 Gold Award for, among other attributes, “open sightlines” and “minimalist” decor. There’s even a cafe inside the premises.

In announcing the award, the ICSC noted the 5,000-square-foot dispensary “features a predominantly black-and-white design palette balanced with warm wood accents and paneling, clean-line furnishings, textured wall treatments and (customized) lighting fixtures.”

But landing such kudos was not top of mind for Common Citizen’s lead executive.

“We didn’t design with the intent to win anything,” said Mike Elias, co-founder and CEO of Michigan Pure Med, the vertically integrated medical cannabis company that

owns Common Citizen. “We just kept the patient in mind.”

‘Human-Centric Blueprint’

Elias is referring to the company’s “human-centric blueprint,” a strategy he said defines everything the company does in the context of the patient/customer.

We put the patient “at the center of the entire universe,” he said, describing Common Citizen’s focus on providing needs-based products and services in an environment that prioritizes consumer comfort, education and accessibility.



The award-winning design of Common Citizen was created by overhauling a former sports bar.
Courtesy Photo

“Common Citizen, at its core, is a movement,” Elias said. “It’s cannabis for humanity. We are not a product-centric environment. We are a very customer-, needs-based environment. We are not pushing product, we are pushing education. We’re pushing a connection. We are educators before we’re retailers. So everything that shows up in the design is based on that core principle.”

Balance of Form and Function

The ICSC pointed out that “the innovative space incorporates a welcoming lobby entry leading to free-standing, high-top counters equipped with mounted tablets, display units containing branded merchandise and related paraphernalia and a variety of seating and lounge areas.”

According to Elias, the dispensary’s “balance of form and function” is driving increasingly positive online reviews and generating approximately 56% more revenue per customer visit than before the remodel.

Inside the facility, customers can enjoy a variety of spaces that serve different needs but are all integrated into the open-concept retail floor.

The dispensary, for example, offers several private rooms where—when the sliding barn doors that enable confidential consultation and browsing are open—patients

recovering from serious illnesses can relax on roomy couches that provide a view of the retail floor.

“We’ve used these with patients who may not be able to walk because they just went through chemo and radiation, and they’re completely depleted,” Elias said of the rooms. “We bring product to them, and if they want to talk about their illness, they can do it in this very comfortable, private setting.”

A Cafe for Newcomers

The dispensary also includes a cafe that’s separated from the retail floor by a glass partition, enabling customers to sip a familiar brew while viewing products and activity on the floor itself.

“Many people were surprised at the cafe,” Elias said, “because it’s designed to slow people down.” But it provides a way to “engage-at-a-glance” and enables the store’s budtenders (or “citizen advocates,” as Common Citizen calls them) to sit down with customers, “connect, educate and build rapport.”

Elias touts the cafe as being an especially important attraction for clientele who aren’t yet acquainted with cannabis—the market segment that comprises the bulk of Common Citizen’s visitors.

“The entire design of the store,” he said, “is designed to cater to the

EXECUTIVE SUMMARY

Flint, Michigan-based Common Citizen transformed a dilapidated former sports bar into a dispensary. Although not part of the initial plan, the company’s facility became the first cannabis retail outlet to garner a prestigious design award, winning kudos for its “innovative space” and “black and white design palette.” The dispensary also has a cafe. Here are key elements in Common Citizen’s approach:

- The company’s strategy is to put patients first, maximizing consumer comfort, education and accessibility.
- The cafe is intended to offer customers a view of the retail floor as well as a familiar venue to offset what might be an unfamiliar and/or stigmatized first experience visiting a dispensary.
- Private rooms, designed as lounges, offer retail floor views, comfortable couches and sliding barn doors to accommodate confidentiality for customers recovering from serious ailments or living with chronic illness.
- The dispensary’s open concept doesn’t differentiate between the retail floor, the cafe, private rooms or the entry.
- Common Citizen uses a “needs-based” layout that arranges products by color, intended effect and common health condition.

88% of folks that do not consume (cannabis) today.”

He also credits the cafe, along with the budtenders, for Common Citizen’s increasing sales and favorable reviews.

Addressing Challenges

Common Citizen occupies Flint’s former Raincheck Lounge, a once-popular sports bar that had long been a staple in the community. The building was, however, past its prime.

“Aside from the existing exterior walls, our Flint location (needed to be) completely remodeled and

reconfigured. ... This included everything from new flooring to a new roof," Elias said.

Consequently, the city was "very accommodating" when the company approached it to ask about acquiring redesign specifications. However, Michigan Pure Med did encounter some challenges during the design process, including the project's six-month timeline and planning the build while simultaneously designing the interior and creating specifications for the custom-made mill work.

Additional hurdles included state and municipal limits on where cannabis dispensaries can be located. For example, Michigan requires dispensaries to be located no less than 1,000 feet from K-12 schools and designed in accordance with electrical, engineering and health-care requirements.

"Some of those constraints are driven from the architectural design perspective, but we're also limited in some cases with land. Also, municipalities play into the specs. And that varies from one city to the next," Elias said.

Consequently, Common Citizen will not be able to provide cafes and private rooms at all of its planned facilities, although they will mimic the Flint redesign as much as possible. The company owns nine retail licenses, has three open dispensaries and plans by the end of this year to build seven new facilities, some of which Elias said will be built from the ground up and some of which will be "extensively renovated" redesigns of existing buildings.

"The problem with Michigan," Elias said, "is that you can't really pick your retail location. There are so many constraints that prohibit you from finding the ideal location, so that you don't compromise your architectural design. And if you wait too long, you ... lose the opportunity."



Mike Elias Courtesy Photo

In Michigan, only 8%-9% of municipalities have opted into medical cannabis, and they're allowed to restrict usage, Elias noted. "So they pass these ordinances that ... create separation requirements. And they're often pretty significant. By the time you get all the separation requirements, there's only a handful of locations that you're allowed to buy and (conduct) retail. And then there's this frenzy of people who are all going after locations that are not ideal. Sometimes they put them in these very weird zones that are not really suitable for retail."

Common Citizen, for instance, is half a mile from the nearest retail corridor and therefore receives only about 9,000 vehicles traveling through the area daily—or about half the traffic seen in other retail corridors.

"If you looked at it purely from a retail standpoint," Elias said, "you might raise an eyebrow. ... But because it was the Raincoat Lounge ... there was a historical response to it. ... There's a lot of stories that the locals bring in when they come. A lot of fond memories." MBM



Color-Coded Tables

Common Citizen's minimalist design and black-and-white palette is complemented by the arrangement of inventory on color-coded tables. Each color represents one of four needs-based states (or "common" states, as the company refers to them), which identify both intended product effects and common health conditions.

They include:

- Yellow: Recreational, or social, consumers.
- Blue: People with chronic illnesses and pain-management needs.
- Purple: Solo users who want to unplug in the privacy of their homes.
- Red: Consumers who are interested in microdosing to maintain or improve wellness.

"By no means are we trying to compartmentalize people into four categories," said Mike Elias, co-founder and CEO of Michigan Pure Med, the vertically integrated medical cannabis company that owns Common Citizen. "What we're gathering is that there are four types of consumers that the needs states speak to."

Respectively tagged as Time to Shine, Sweet Relief, Unplug and Daily Dose, these common states give customers the "freedom to understand at a glance" the intended effect of each product, Elias said.

Time to Shine products, for example, "contain sativa, which promotes high energy, while Unplug products contain indica, which helps people relax at the end of the day, relieve pain and get better sleep."

— Celene Adams

Master. Permit
By grower's choice

COMMERCIAL GROW LIGHT SYSTEMS

OFFERING
UNBEATABLE & UNMATCHED
YIELDS & QUALITY



1000W CMH

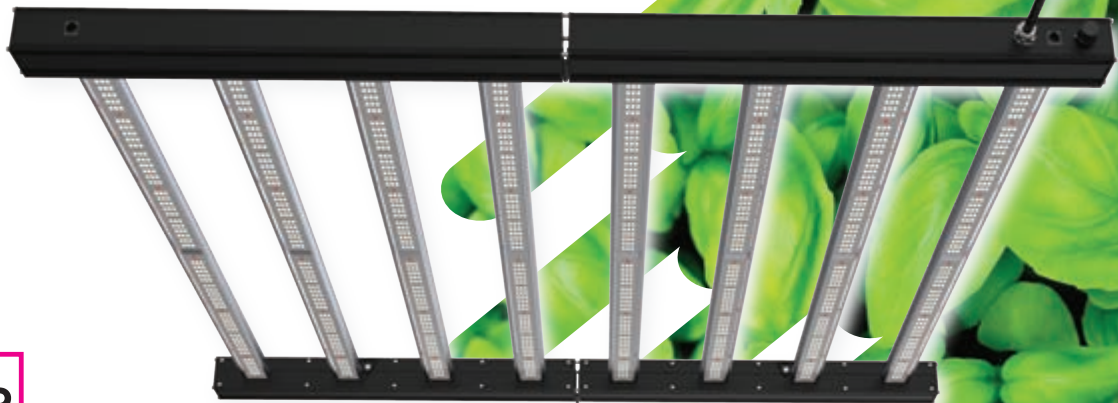


1000W HPS

www.growersc.com



GROWER'S CHOICE
It's the RIGHT Choice



MSRP
\$999

ROI-E680 HORTICULTURE LED SYSTEM

AN INSPIRED COLLABORATION

www.tslhortitech.com X www.growersc.com



While processors will often visit a cannabis producer's facility as part of the partnership, it's also recommended that labs host growers to give them a sense of how the extraction process works.
Courtesy Photo

Working Backward

Extractors can assist cultivators in creating high-quality raw materials

Quality in, quality out. Without good starting material, cannabis extractors don't have much to work with.

Ensuring cultivators provide excellent flower in a consistent manner is an important part of the process for any successful extraction company.

In order to establish that a cultivator is providing first-rate material, extraction companies should:

- Visit the facility to evaluate how the plants are grown.
- Determine exactly how the cannabis is harvested and if that process is in line with what is desired.

- Coach growers on the best method for storing flower destined for extraction.
- Test the flower in-house as it comes in and provide feedback to the grower.

"We're always working with our partners to create a better product and a better experience," said Eli Bilton, CEO of Attis Trading Co., a vertically integrated cannabis business based in Portland, Oregon.

Tour the Site

Visiting the grow facility is a good first step to determine if the cultivator is the right fit to provide raw materials.



EXECUTIVE SUMMARY

Extraction companies that want to ensure cultivators deliver consistent, excellent raw material should coach partner growers about what qualities they are seeking. Processors who want to provide feedback to cultivators should:

- Tour the grow site to determine if the farm is up to snuff.
- Decide whether the grower's harvest practices are in line with the processor's end goals for potency and terpene profile.
- Provide guidance to the cultivator about how they would like flower packaged.
- Test product in-house to offer growers objective data behind decisionmaking.

Easily Verify License Status

Tap into an API that enables you to quickly verify the legal status of state-licensed cannabis and hemp businesses to ensure you maintain compliance. You give us the state ID, we return the status and details about the license.



“We use the Verification API to automate the verification steps we use when setting up new buyers and sellers on our platform. And it was very easy to implement! The API is simple and straightforward, and we were able to build a successful integration in just a few days.”

– Andrew Graf
Sr. Product Manager
Leaf Trade

“Cannabiz Media is a leading data source in the cannabis industry. We utilize the Compliance Verification API to conduct audits for our banking clients, providing priceless peace of mind that they are building relationships with legitimate licensed businesses. Well worth the investment!”

– Tony Repanich
President and Chief Operating Officer
Shield Compliance

✔ Cannabis & Hemp Leads ✔ CRM ✔ Email Campaigns ✔ Domestic & International

www.cannabizmedia.com 203-653-7975

**cannabiz
media**

YOUR
VERIFIED
SOURCE

The Verification API allows you to look up license details without having to log into the License Database:



Input state ID numbers



Return verified data that includes the state of issue, legal status, tradename, and license description



Lookup results in bulk to enhance your workflow

“We will always tour the garden first,” said Murphy Murri, director of research and development for Sano Gardens, an extraction company based in Commerce City, Colorado.

She’ll drive four or five hours—to the other side of the state, if necessary—when she’s interested in working with a new grower.

“We have to go in there and see what’s going on,” Murri said.

During the site visit, Murri is looking for any indications there might be contaminants such as mycotoxins, mold or yeast, which can be determined by evaluating the cleanliness of the facility.

“Just because the flower they sell us passes testing doesn’t mean there aren’t risks inside their facility,” Murri said.

The visit also gives her insights into what lights and fertilizers the growers are using. She’s also evaluating the morale of the company’s staff and if there’s a high turnover rate, which can be “problematic.”

“If they’re constantly changing their gardener, we’re left with these huge variations in our output,” said Murri, whose company creates live resin and vape cartridges. “We want consistency.”

Matthew Anderson, CEO of Vanguard Scientific, an Aurora, Oregon-based company that services the marijuana and hemp extraction industry, also encourages site visits.

“Meeting the grower at the farm and on site takes away a lot of mystery around the conversation,” he said. “Any grower can produce one premium cola or one nice, premium batch.” But he’s also looking for consistency.

Anderson has a checklist that he runs down when he tours a grow site. He wants to know:

- Does the grower have adequate sunlight?
- How will the crop be planted?



Murphy Murri, director of research and development for Sano Gardens, gives a demonstration during a recent extraction class.
Courtesy Photo

- What does the harvest schedule look like?
- What genetics are being used?
- What’s the expected yield?
- How many plants are grown at once?

Anderson also recommends asking for a sample of the product.

He’ll then ask the grower to take a tour of the extraction site so everyone is on the same page.

Harvest Evaluation

Bilton coaches his growers that if the flower is intended to be sent for extraction, it’s better to grow the more commercial strains that lend themselves to higher potency and higher yield, such as Silver Haze, Northern Lights and Chemdawg.

He’s also coaching the cultivators to provide strains with certain terpene profiles and minor cannabinoids such as THC-V and CBG.

Murri said too many cannabis products contain the terpene myrcene, for example, and she likes to work with cultivars that express other flavors to add variety to her products.

For Murri, her company’s focus is on live resin, which requires fresh frozen material, so the harvest is crucial. “I want it as fresh as I can get it,” she said.

Murri said she focuses on terpene content, and—unlike cannabinoids, that accumulate in the plant over time—terpene levels can change every day.

“That means whatever’s happening with that plant right before it’s harvested, that’s the content we’re going to get,” Murri said.

She’s interested in plant health and how the cultivator cuts down the plant. The longer the plant is out in the open before it’s frozen, the more terpene content can be lost, she said.

“If you have a stressed-out or struggling plant, and you harvest right away rather than giving it time to recover, it’s going to smell way less appealing,” Murri said.

Packaging Feedback

Aside from harvesting and strain-selection feedback, Bilton coaches growers about optimal methods for storing cannabis.

He recommends they avoid using plastic packaging such as turkey bags, because light breaks down the plant material. Such packaging also traps moisture and air, which will oxidize and ferment the flower and doesn’t lend itself well to extraction.

Instead, Bilton suggests cultivators store flower in mylar bags—similar to those used for potato chips—to keep light and oxygen out.

Murri posits that growers should shuck buds into frozen bags right away. And don’t pack those bags so full so that the flower can’t move around.

If raw product is stuck together, it will develop flat spaces, and compacted plant material can cause difficulties during the extraction process.

Next, get everything immediately into the freezer. “The sooner you can get it taken care of and frozen, the better,” Murri said.

In-house Testing

Anderson recommends testing the product for potency throughout the process. Testing can also include determining the loss rate to find out the amount of fats, waxes and lipids as well as tracking the terpene profile.

Once a company has narrowed down which cultivars produce the desired potency and terpene profile, Anderson advised that extractors “talk to the farmer and say it’s in both of our best interests to grow this cultivar or strain,” he said.

Murri concurs, saying a lot of growers don’t test enough during the harvest phase.

“Test those buds every single day and wait to harvest until they produce the most (terpenes),” she said.

She suggests doing the same for cannabinoid content. A lot of growers establish a schedule and



Matt Anderson *Courtesy Photo*

cut down plants on a set day, but waiting a few more days might be the difference in yield of a whole percentage point in terms of resin and terpene production.

Murri also tests the raw material for terpene profile and potency multiple times. “We put the labs to work for us,” she said.

The lab results are one way Murri can demonstrate to a grower that one version of the Honey Banana strain is better than another, and it’s not subjective. For instance, one batch might have 26 different terpenes at 7% total terpene content versus 18 terpenes at 4% total content in another.

“Then it’s very easy for me to say, ‘Here’s why, and do better,’” she said. “We can bring math into it.” **MBM**



Bart Schaneman covers extraction for Marijuana Business Magazine. You can reach him at barts@mjbizdaily.com.

An intensely focused yet aptly mellow approach to cannabis M&A.

Our sole focus is California’s cannabis industry, so we interact with more businesses here than any other investment bank.

And that’s how we get deals done in California.

See our completed deals: KOacq.com/transactions



1592 Union Street, Suite 325 San Francisco, CA 94123 415-215-5227 BRE License # 01354419

By Omar Sacirbey

A look at some recent hiring moves in the marijuana industry

Michael Blum

Goldman Sachs CTO Joins PharmaCann

It's not clear why **Michael Blum** left a well-compensated, partner-level position as chief technology officer of electronic trading at Wall Street titan Goldman Sachs. What is certain is that he didn't become New York-based PharmaCann's CTO for the money.



"It wasn't the compensation that brought me here. It was the opportunity," said Blum, who confirmed he's receiving less now than at Goldman Sachs. "I feel like I'm being fairly compensated, given where PharmaCann is at. It was an opportunity to help build a company, build an industry, that brought me here. Not the compensation."

Blum passed on an earlier opportunity to join PharmaCann in 2017.

Between 2016 and 2017, the electronic trading trailblazer worked at GETCO (now KCG Holdings), an electronic trading firm in Chicago, with several current PharmaCann leaders including CEO **Brett Novey**, Chief Strategy Officer **Michael Chodil**, board member **John McCarthy**, Executive Director and PharmaCann investor **Stephen Schuler** and **Dan Tierney**, head of Wicklow Capital, a Chicago venture capital firm that also invested in PharmaCann.

After Virtu Financial, a New York City financial-services company, acquired KCG in 2017 and let Blum and other executives go, he explored joining his buddies who were already at PharmaCann. But cannabis still seemed too risky, while Goldman Sachs gave him an offer—including coming in as a lateral partner, something extremely rare in top-tier financial institutions—that was too good to pass up.

At Goldman, Blum built a technology system that processes more than 5 billion transactions per day. But he kept his eyes on cannabis, watching more states launch medical and/or recreational programs. PharmaCann, however, had frozen hiring during its merger (announced Dec. 24, 2018) with California MSO MedMen Enterprises. When that merger collapsed last October, PharmaCann resumed hiring and soon reached out to Blum. This time, he said yes.

"I want to make PharmaCann more efficient, and I want to try to help the cannabis markets become more efficient," he said.

UN's Top Anti-MJ Crusader Joins Medical Cannabis Firm

Viroj Sumyai, president of the United Nations' International Narcotics Control Board (INCB) from 2017 to 2018, has been hired as president of Thailand's leading medical cannabis company, Thai Cannabis Corp. At the INCB, which oversees international drug treaty compliance, Sumyai was highly critical of cannabis legalization for nonmedical use as well as "poorly regulated" medical programs. In his new role as president of 10-year-old Thai Cannabis, which has mostly acted as an informal adviser to Thailand's government on medical marijuana policy, Sumyai is expected to boost the global credibility of the industry, especially in Asia.

Oakland MJ Company Hires For CPG Experience

Nug, a diversified cannabis business in Oakland, California, hired **Alissa Berihu** as its new director of product development. Berihu is the founding partner and co-formulator of Andalou Naturals, where she launched more than 200 products and guided her startup business through an acquisition by the publicly traded BWX Brands, a global beauty company. Berihu also previously served as new product manager for the Shaklee Corp., a natural supplement company, and brand manager for Zia Natural Skincare in Indonesia.

Nug also hired **Steve Lilak** as director of sales. Lilak has held key executive positions at Southern Glazer's Wine & Spirits, one of the largest alcohol distributors in the United States, grocery chain Safeway and wine and spirits e-commerce platforms Bounty Hunter Rare Wine & Spirits and Vinfolio. In 2018, he was appointed vice president of sales for California-based Jetty Extracts. Lilak then became the director of sales for CBD luxury lifestyle brand Toast.

**Cresco Loses Co-founder,
Gains Chief Commercial Officer**

Joe Caltabiano, the co-founder of multistate marijuana operator Cresco Labs, resigned as president of the Chicago-based company. Caltabiano will continue to serve on the board of Cresco, one of the largest vertically integrated marijuana companies in the United States.

Caltabiano, who co-founded Cresco Labs in 2013, told Marijuana Business Magazine his "skill sets are different than what Cresco needs from the president of a publicly traded company that's forging into the next version of the cannabis space."

Caltabiano's accomplishments include helping Cresco Labs gain access to major domestic cannabis markets, launching and rolling out the Sunnyside national retail brand and leading several sale-leaseback

transactions and capital raises.

Caltabiano said his next step will likely be joining a plant-touching company in the startup phase. "I'll help with their strategic vision and a capital plan and help them achieve their success," he added.

Cresco also hired **Greg Butler** for a newly created post, chief commercial officer. Butler has been a senior brand executive at major CPG companies such as Pfizer, Johnson & Johnson and Molson Coors. Butler most recently served as operating partner at MNML Ventures, an affiliate of Cresco Labs. In that role, he led the creation of a pioneering occasion-based portfolio strategy, relaunched seven cannabis brands



Greg Butler

with new brand positionings, identities and packaging design, oversaw the creation of a multi-year innovation pipeline and drove the concepting and launch of the national Sunnyside retail brand. He also helped reshape Cresco Labs' robust marketing, retail operations and sales teams made up of notable hires from Apple, Starbucks, PepsiCo and Red Bull.

**Cannabis Pioneer to Try
Genetic Research**

Marijuana pioneer **Andy Williams** left Denver-based Medicine Man Technologies, the vertically integrated MJ company he founded in 2014, to pursue opportunities in medical and genetic research as well as other opportunities in the cannabis industry. Williams, who was president and vice chair, left after a major cash injection from Dye Capital, a

PENTAIR
CLEARWATER TECH

CANNABIS CONFERENCE
BOOTH 410



SMART, SUSTAINABLE WATER & AIR TREATMENT
REDUCE YOUR CHEMICAL FOOTPRINT WITH OZONE WATER SOLUTIONS

Use the planets strongest oxidizer to treat the water and air in and around your indoor grow facility safely, and effectively. Disinfect surfaces, equipment, control pathogens, treat incoming and outgoing water, control odors, and recycle water for reuse.

- CONTROL MOLD and ODORS
- ELIMINATE PATHOGENS
- REDUCE ENERGY COSTS
- REDUCE CHEMICALS
- PRODUCED ON SITE
- BOD/COD REDUCTION
- SMALL FOOTPRINT

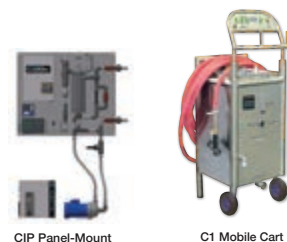
Wall-Mount, Panel-Mount, and
Mobile Systems Available



SHOW SPECIAL

Purchase a C1 Mobile Disinfection Cart at the show and receive a **FREE** Hose Kit (value \$750)

Pentair - ClearWater Tech **CALL OUR SALES TEAM TODAY!**
800.262.0203 | 805.549.9724 | cwtozone.com | sales@cwtozone.com



PRODUCE HEALTHIER PLANTS SAFELY & EFFECTIVELY WITH ENERGY EFFICIENT OZONE WATER TECHNOLOGY - SINCE 1986

private-equity firm in Boca Raton, Florida. **Justin Dye**, managing general partner at Dye Capital, became Medicine Man's CEO in December. Williams was appointed CEO of Medicine Man last April, after the unexpected death of **Brett Roper**, who had held the top position.

Ex-Cargill Extraction Chief Joins Florida CBD Company

Matthew Turner, an international extraction and refining expert, joined the executive leadership team of Fort Lauderdale-based Green Point Research as chief science officer and will oversee the company's extraction and refining operations.

Turner brings experience from roles including global manufacturing operations manager of Cargill's extraction and refining plants. He also has led manufacturing, engineering and operations for Golden Peanut, Justin's Nut Butter and was the former CEO of DeSmet Ballestra, an edible-oil extraction and refining business.

► Canadian Cannabis Pioneer Joins 1933 Industries

Jeannette VanderMarel,



a Canadian cannabis pioneer, joined vertically integrated 1933 Industries in Vancouver, British Columbia, as an adviser in the areas of business development and corporate governance. VanderMarel founded cannabis companies such as The Green Organic Dutchman and Good and Green, the latter of which was acquired by 48North.

Leadership Changes at Miami MSO Miami-based Consortium, a vertically integrated cannabis company with operations in Florida, Michigan, Pennsylvania and Texas, announced

that **Neal Hochberg**, chair of the board of directors, has been appointed executive chair after the resignation of co-founder and CEO **Jose Hidalgo**. Hochberg is a vice president at Charles River Associates and was the global leader of the Forensic and Litigation Consulting segment at FTI Consulting from 2008 until 2017 and served on the firm's executive committee. His career also includes service as a forensic and litigation partner at two of the Big Four global accounting firms.

Unilever Vet Joins Quebec License Holder

Neptune Wellness Solutions, a licensed producer from Laval, Quebec, appointed **Scott Antony** as senior vice president of U.S. retail sales. Antony joins Neptune from Unilever North America, where he held a variety of senior leadership positions since joining the company in 1986.

Most recently, Antony served as vice president of sales for Unilever's Target Division, where he developed and managed the company's relationship with retailer Target, one of Unilever's largest and most strategic customers in North America. Antony also led Unilever's Safeway Division and held the positions of director of sales strategy and operations, director of business development and director of sales strategy and integration.

Cannabis Farm Taps Culinary Ag Specialist

Sonoma Hills Farm, a craft cannabis farm and culinary garden in Sonoma County, California, appointed **Aaron Keefer** as vice president of cultivation and production. Keefer has been an adviser to Sonoma Hills Farm since 2018 and most recently worked as head culinary farmer for the Thomas Keller Restaurant Group, which includes three-Michelin-starred restaurant The French Laundry in Yountville, California.

He has been a keynote speaker at prestigious farming conferences and also taught at Google's teaching kitchen as part of their farm-to-table program. In recent years, Keefer advised three-Michelin-starred eateries SingleThread and Saison farms. He also has cultivated cannabis for Grassroots and The Apothecarium in San Francisco.

Last fall, Sonoma Hills Farm was granted the first 1-acre conditional-use permit for a cannabis grow in Sonoma County. The first harvest is planned for late 2020.

► Denver Law Firm Names MJ Practice Head

Denver-based Fortis Law Partners named **Alyson Jaen**



as head of its expanding cannabis practice. Jaen represents clients before state regulatory agencies such as the Colorado Marijuana Enforcement Division and the Denver Department of Excise and Licenses. Jaen was previously at a Denver law firm where she advised public and private companies on federal enforcement risks in legal cannabis markets and has assisted in more than \$1 billion in transactions for the cannabis industry. She earned her law degree in 2014 from the University of Denver Sturm College of Law.

Maine Cannabis Company Gets Operations Leader

Sweet Dirt, a vertically integrated cannabis company in Eliot, Maine, appointed **Jessica Oliver** to vice president of cannabis operations. Oliver most recently was Sweet Dirt's director of retail operations. In her expanded role, Oliver will continue to lead a growing retail team but will also connect with cultivation, finance, compliance and

marketing to manage manufacturing operations and oversee all product operations including procurement, merchandizing, packaging and pricing.

Oliver started her cannabis career in 2012 with a major medical cannabis dispensary, and in 2017, she founded J.J. Oliver Consulting, offering project management and operations consulting for the cannabis industry. Her specialties include cannabis retail operations, compliance management, process improvement, product development, packaging design and retail operations planning.

Florida CBD Business Hires FDA Chemist

Veritas Farms, a vertically integrated agribusiness in Fort Lauderdale, Florida, that focuses on the production of full-spectrum hemp oil products with naturally occurring cannabinoids, is pleased to announce that **Daniel Connors** joined the company as a new executive to assist in research and development of new products. Connors previously worked as an analytical chemist for the U.S. Food and Drug Administration. Connors has built and operated laboratories, managed teams of specialized scientists, generated multiple new patents and produced and maintained health, safety and environmental records and policies for large corporations.

North Carolina CBD Company Boosts Product Development

Open Book Extracts, a Roxboro, North Carolina-based cultivator, processor and manufacturer of CBD products, appointed **Phoebe Leppla** as director of product development. Most recently, Leppla led skin-care research and development and a team of formulation chemists, packaging scientists and process engineers for Burt's Bees. She also spent nearly a decade in engineering,

formulation and project-management posts at The Clorox Co., specializing in the cleaning, wellness, beauty and personal-care categories.

Utah's Top MJ Regulator Departs

Utah's top cannabis regulator, **Andrew Rigby**, announced his resignation. Rigby, who became director of the state's medical marijuana and industrial hemp program in early 2019, told news outlets he had planned to resign once the state's cannabis program was operational.



▲ Napa Infused Beverage Firm Taps Ex-Constellation Exec

House of Saka, a Napa Valley, California-based producer of alcohol-free, cannabis-infused beverages made from vineyards in Napa Valley, hired wine and spirits veteran **Sue Bachorski** as chief operating and financial officer. Bachorski will oversee operations, logistics and finance for the company.

Before Saka, Bachorski spent nearly three decades as a senior operations and finance executive at Constellation Brands, which is also a major investor in Ontario-based Canopy Growth. She most recently served as Constellation's senior vice president of operation services-global wine and spirits, which supported 24 production locations in five countries. Bachorski also has served in executive positions at Constellation Wines North America and Pacific Wine Partners, where

she led teams through multiple acquisitions, business combinations and organizational re-alignments.


MJ Tech Firm Makes CEO Permanent

Tilt Holdings, a Massachusetts-based cannabis company with a focus on technology, installed **Mark Scatterday** as permanent CEO. He had served as the company's interim CEO since May 2019. Before joining the company as interim CEO, Scatterday was the founder and CEO of Jupiter Research, a vaping technology company acquired by Tilt in January 2019.

Tilt also announced that Chief Operating Officer **Tim Conder** would serve as company president.

London CBD Tech Platform Hires Former PharmaCielo Head

London-based CBD marketplace Alphagreen appointed **Patricio Stocker** as chair of the board of directors. He will work directly with co-founder and CEO Alexej Pikovsky to scale the business as well as chairing and managing the board of directors. Stocker was previously chair, president and CEO of PharmaCielo, a large, licensed cannabis producer in Toronto with Colombian operations. In 2019, he moved to Blueberries Medical Corp., another producer of medicinal cannabis products, as CEO before his appointment to chair of Alphagreen.

Before joining the cannabis sector, Stocker spent 20 years in the European and South American automotive industry, chiefly at Daimler. During his time there, he held various positions, from country president and CEO for DaimlerChrysler Colombia to head of the truck and bus division for Daimler Latin America. 

Hired or promoted someone for a senior-level position? Send a news release or general information to omars@mjbizdaily.com.

By Omar Sacirbey

Each month we survey a group of cannabis executives and ask them an industry question. We welcome your suggestions for topics. Email us at magazine@mjbizdaily.com. Intellectual property is increasingly important in the cannabis industry, and since April 26 is World Intellectual Property Day, we asked executives to summarize their companies' intellectual property strategies or name something for which they are pursuing patents.



Pam Marrone

CEO/Founder, Marrone Bio Innovations, a plant health and pest management company, Davis, California



We have commercialized a line of bio-based products for pest management and plant health, including cannabis and hemp. IP is critical to the company, as we are in a very competitive (agrichemical) industry with a diverse range of small and large companies around the globe. We have 396 foreign-issued patents and 53 U.S.-issued patents—105 (patent applications) are foreign pending and 23 are U.S. pending.

Our product lines are comprised of naturally occurring microorganisms or plant extracts. All of our product lines are patented. We patent the microorganism (and its complementary DNA) or plant extract and/or its uses for pest management and plant health, the pesticidal compounds produced by the microorganisms or in the plant extract, formulations and synergistic mixtures with other products.

We have patented the process for discovering a new bioherbicide. Our Pro Farm subsidiary has patented the process for making its biostimulant/bionutrient products from wood waste.

Stephen Goldner

CEO/Founder, Pure Green, an infused product company, Inkster, Michigan



Pure Green Pharmaceuticals has applied for eight patents, was awarded the first that we applied for, and is moving toward approval on the others. We have patentable inventions in the cannabis field about four times per year (that are) designed to enable our core technology: the synergistic application of true water-soluble cannabinoids/terpenes to people and animals to relieve multiple medical conditions in a user-friendly form factor.

Our IP strategy builds a “picket fence” around extraction processes, product formulations and manufacturing processes for medical and consumer products worldwide. The first awarded patent is a unique process that decreases microbial contamination in cannabis plants, vastly increases cannabinoid/terpene recovery during extraction and decreases plant drying cycle time.

Ben Larson

CEO, Vertosa, an infusion technology company, Oakland, California



Intellectual property is a significant consideration in Vertosa's strategy as an ingredient manufacturer and technology provider in the marijuana and hemp supply chains. We custom design our emulsion formulas to fit the needs of each partner brand's product, so we've developed a unique patent strategy to match the flexibility of our formulas based around the work of founder and Chief Science Officer Dr. Harold Han, who has been developing nano- and micro-emulsions his entire career. Dr. Han figured out how to merge the insoluble—cannabis and water—to create incredibly homogeneous and stable beverages, topicals and more, while combatting challenges such as ingredient and packaging compatibility. While the patents focus on the components of the solutions, we also have implemented a robust trade-secret strategy that is the key to producing our final products.



EDEN

THE COMPLETE CONTROL SYSTEM

SYSTEMS DESIGNED & BUILT FOR GROWERS



TOTALGROWCONTROL.COM



CONTROLS & SOFTWARE

Total Grow Control's proprietary custom control system is simple and intuitive. Stand alone user friendly interface capable of controlling nutrient delivery, recipe management and environment.

Rest easy knowing that you can monitor Eden from your phone, tablet, or computer while you're away. Secure 128 bit encrypted with controlled access.



info@totalgrowcontrol.com | 720-316-6284



Photo Courtesy of Dispensary 33

Illinois began recreational marijuana sales Jan. 1, 2020, with long lines and enthusiastic customers generating \$11 million in sales that day. During the first two months, recreational sales in Illinois reached nearly \$75 million, a figure that is likely to increase over time as the market develops. The medical marijuana program is expected to stay strong given the large discrepancy in tax rates between the two systems: Medical patients pay only 1% in taxes while recreational customers pay up to 34.75% depending on product, potency and location of purchase. *Marijuana Business Daily* estimates Illinois' recreational sales could reach \$2.5 billion annually when the market matures.
 – Maggie Cowee

► What to watch

Retail outlets will continue to open in Illinois, which will impact month-over-month sales. The state has developed a complex system to roll out recreational retail outlets. While existing medical dispensaries were given priority to apply for recreational licenses in 2019, the remaining retailers will be licensed in a series of waves. The maximum number of retailers allowed by the end of 2020 is 185. Sales are likely to increase as more cannabis stores open across the state, but they might not grow as quickly as in other states, given that towns and municipalities have the ability to opt out of retail activity.

Illinois aims to have one of the most socially equitable recreational systems in terms of ownership. The state's licensing system was designed to place strong emphasis on social equity ownership. License applicants who own more than 51% of the company and have a previous cannabis conviction eligible for expungement earn extra points, as do applicants living in areas disproportionately impacted by cannabis-related arrests, convictions and incarcerations. The Cannabis Business Development Fund was created to offer low-interest financing to business startups as well. "Strawman" agreements have cropped up in other states' social equity programs, where an applicant owns 51% or more of an operation on paper to qualify for equity points but has no true control or authority over the business. Illinois will initiate a disparity study in May to evaluate the system.

Main measures	State tax requirements	Sampling of state licensing & application fees	
HB 1438 (2019)	Local sales tax: ≤3.5% State sales tax: 6.25% Retail tax: 10% to 25%, depending on type of product and THC content Total tax: 19.55%-34.75%	<p>Existing medical cannabis license holders: Application (nonrefundable) Cultivators: \$100,000 Retailers: \$30,000</p> <p>Fee existing license holders pay into the state Cannabis Business Development Fund Cultivators: \$750,000 or 5% of total sales—whichever is less—between June 1, 2018, and June 1, 2019, with a minimum fee of \$250,000. Retailers: First license: \$100,000 or 3% of total sales—whichever is less— between June 1, 2018, and June 1, 2019. Second license: \$200,000</p>	<p>New entrants to market: Application (nonrefundable) Craft growers: \$5,000 Infusers: \$5,000 Retailers: \$5,000 Transporting organizations: \$5,000</p> <p>License Craft growers: \$40,000 Infusers: \$5,000 Retailers: \$60,000 (biannually) Transporting organizations: \$10,000</p>
Fee waivers of up to 50% toward nonrefundable application and initial licensing fees are available through the Department of Financial and Professional Regulation and the Department of Agriculture to social equity applicants meeting certain requirements.			



PREMIUM PRODUCTS YOUR CUSTOMERS ARE LOOKING FOR

VAPORIZERS • GRINDERS • PAPERS • GLASS • ACCESSORIES

WHOLESALE ORDERS CALL 877.292.7660 | GNLN.COM

NOT FOR SALE TO MINORS

Cannabis Lab Solutions

- ☑ **UniMax Fume hoods to safely isolate contain and ventilate botanical extraction processes for the Medical Marijuana Industry.**
- ☑ **Medical Marijuana Testing Labs, Quality Control, Third Party Inspections, Sized to meet your specifications**
- ☑ **UniFlow AireStream Laboratory Fume hoods, UniLine Casework Furniture Groupings**

NEW

ISO 9001:2015 Certified Company **HEM CO** Specify HEM CO on Your Next Lab Project

Made in USA www.CannabisLabSolutions.com Call: (800)779-4362

WE CAN CANN.

STAY AHEAD OF THE CURVE - GET YOUR THC/CBD BEVERAGE INTO CANS.

- DEPALLETIZERS
- PALLETIZERS
- RINSERS & DRYERS
- CONVEYANCE SYSTEMS
- DATE CODING
- FILL DETECTION
- CAN CARTONING
- CUSTOM LINE DESIGN

With over 750 happy customers worldwide, Ska Fabricating is the industry leader in packaging line automation.

WWW.SKAFABRICATING.COM
Sales: (970) 403-8562 • Email: sales@skafabricating.com

ODOR CONTROL FOR THE CANNABIS INDUSTRY

FROM SIMPLE SOLUTIONS DISTRIBUTING

Introducing the **RMS-800 Recirculating Molecular Air Scrubber**

Odor control for enclosed grow and processing environments

IndustrialOdorControl.com/cannabis
973-846-7817 - sales@industrialodorcontrol.com

Patent #8,273,162

Growth Capital Since 2015

- Equipment Leasing for the Cannabis/CBD Industry
- \$500,000 to \$5.0 Million
- Affiliated Company of Veterans Capital Corp and its Private Equity Fund
- 7leafCapital.com
- Call Now @ 239-325-1950 (Naples, FL)

Seven Leaf Capital

THE MOST COMPLETE GUIDE TO THE CANNABIS INDUSTRY

Exclusive data, analysis and trends.
Plus new quarterly updates to keep you current.

Sponsored by:



Data Partners:



Purchase your copy at:

mjbizfactbook.com
or call 720-213-5992x1

\$399.99

ANNUAL MARIJUANA BUSINESS **FACTBOOK**

THIRD QUARTERLY UPDATE

7th Edition

Marijuana Business **Factbook**



AFINIA LABEL
MAKE YOUR OWN LABELS

Get a competitive advantage with on-demand label printing

afinialabel.com/mjbiz

***Save up to \$500**

- NO LONG LEAD TIMES
- LOWER LABEL COSTS
- NO MINIMUM ORDERS
- EASILY ADD VARIABLE DATA



CANNABIS
EQUIPMENT LEASING

- ✓ Direct Funding Source
- ✓ Flexible Terms and Options
- ✓ Manufacturer and Vendor Calls Welcomed
- ✓ We Do Not Re-broker Transactions

cannabisequipmentlease.com 972-690-9444 ext. 225

GROW GREEN

Remove mold spores and contaminants from incoming air and indoor air, and remove odors from exhaust air, without the high costs of energy and maintenance.



Dynamic V8 Air Cleaning System Dynamic Activated Carbon Matrix

Dynamic
Air Quality Solutions
www.DynamicAQS.com

Marijuana investing made simple. And profitable.

Cabot Marijuana Investor
Profit From the Best Cannabis Stocks

CabotWealth.com/MJB




Cannabis Business Brokers 


Experts in all aspects of buying and selling marijuana businesses

Tel Karen:
949-280-3092

Cannabis-Business-Brokers.com
CA License #02064427


www.chuckallenproperties.com

Cannabis and Hemp Properties on California's Central Coast

Chuck Allen
(831) 818-1069
42 Brennan St.
Watsonville CA 95076

DRE#00357826



ANNUAL HEMP & CBD INDUSTRY FACTBOOK

See through the hemp and CBD hype with all the facts, insights and statistics.

HempIndustryDaily.com/NoHype

MJBizDaily Investor Intelligence

Sophisticated Market Intelligence for Sophisticated Investors.

Become a Member at MJBizDaily.com/Investing

Our Advertisers

Afinia Label.....	109	Hawthorne Gardening Co.....	59, 84-85
BIC.....	17	HEMCO Corp.....	108
Busch.....	23	Huber USA.....	57
Cabot Wealth Network.....	109	Industrial Odor Control.....	108
Canapa.....	1	KO Acquisitions.....	99
Cannabis Business Brokers.....	109	LaSalle Nova Capital Markets.....	62-63
Cannabis Equipment Leasing.....	109	Mammoth Lighting.....	13
Cannabiz Media.....	Inside Front Cover, 97	<i>Marijuana Business Daily</i>	51, 91, 111
CB Mills.....	19	Natoli Engineering.....	61
Chuck Allen Properties.....	109	NexTec Group.....	25
ClearWater Tech.....	101	Nexus Greenhouse Systems.....	7
Colorado Extraction Systems.....	Inside Back Cover	Omega.....	33
Colorado Society of CPAs.....	21	Precision Extraction Solutions.....	15
DaVinci.....	69	Seven Leaf Capital.....	108
DisplayDispensary.com.....	71	Ska Fabricating.....	108
Dynamic Air Quality Solutions.....	109	Siva Enterprises.....	Outside Back Cover
Ecodyst.....	81	Storz & Bickel.....	43
EZ Lock USA.....	74-75	Surna.....	55
Gavita.....	57	Total Grow Control.....	105
Greenlane.....	107	TruSteel.....	47
Grenco Science.....	9	Ushio.....	111
Grower's Choice.....	95	Velxtech.....	83
GrowSpan.....	67	Valoya LED Grow Lights.....	5

Powerful portfolio-altering effects.

Membership in Investor Intelligence does more than increase your knowledge of cannabis investing. Your portfolio will benefit from our team of experienced journalists and financial analysts who go beyond data to identify trends and deliver the unbiased data and market intel that sophisticated investors demand.

MJBizDaily
**Investor
Intelligence**

Explore Investor Intelligence: Access complimentary white papers, webcasts with expert analysts, and market reports at mjbizdaily.com/investing-access.

Having the head of the INCB (International Narcotics Control Board) suggesting that the conventions are not fit for the challenges of the 21st century is already breaking a strong taboo. ... Taboo is the only reason why there has not been any discussion about a new, a different or another drug treaty since 1988.

– **Kenzi Riboulet-Zemouli**

an independent expert on United Nations drug policy, on the significance of INCB President Cornelis P. de Joncheere questioning whether the agency's decades-old drug conventions are outdated in light of international policy developments.

Source: *Marijuana Business Daily International*



Expect constant change and more regulation. We know that all the various operations along the supply chain might have unique oversight from the federal government.

– **Diane Czarkowski**

Co-founder of Canna Advisors, a Colorado-based cannabis consulting firm, on what marijuana companies can take away from U.S. legalization of hemp.

Source: *Marijuana Business Daily*

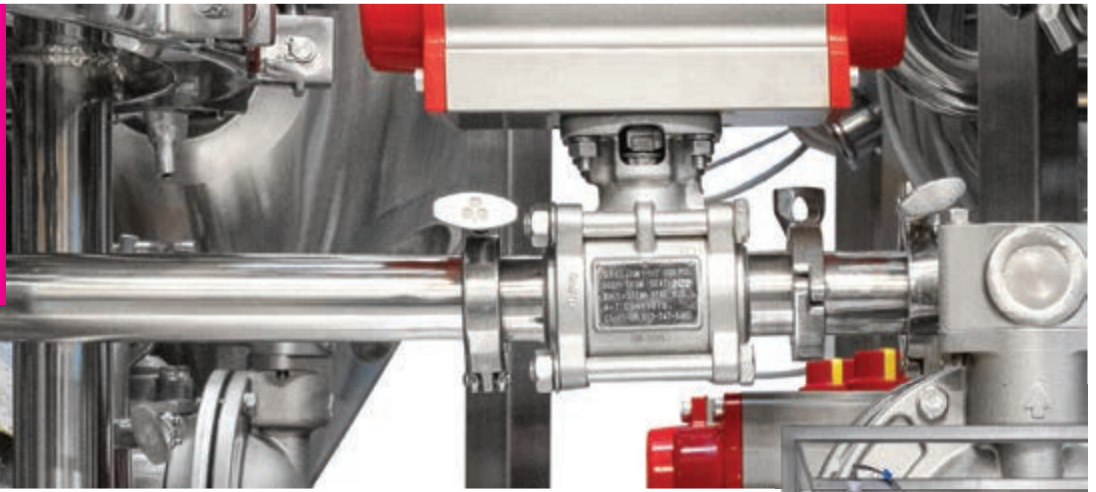
We are going to develop a supply chain that uses the entirety of the plant for high value. The potential participants in this are massively different. The cool part is that, right now, we know enough that we see a zillion options (for hemp).

– **Bruce Linton**

Former co-CEO of Canadian marijuana giant Canopy Growth on his new project, the Collective Growth Corp., which he and his collaborators are trying to get listed on the Nasdaq and hoping will shake up the U.S. hemp market.

Source: *Hemp Industry Daily*





IN A WORLD OF KNOCKOFFS, **ONLY ONE HOLDS THE PATENT.**

We are the technology. Our patented designs lead the industry in extraction efficiency, solvent recovery, and throughput. From equipment selection and installation to reliable performance and training, our team delivers trusted equipment that grows with you.

99%

solvent
recovery

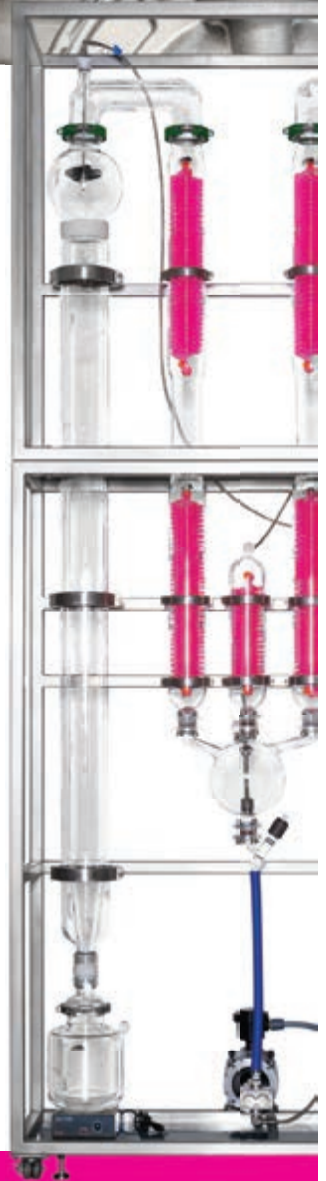
92%

CBD
extraction
efficiency

196

proof
purity

Results dependant on quality of the biomass.



Pure Processing Power™



SCHEDULE A DEMO

coloradoextraction.com

800.513.5560 | sales@coloradoextraction.com





SIVA™

CONSULTING

BRANDS

VENTURES

INVESTMENTS

INSURANCE

MANAGEMENT

(818) 562-3362 | #SIVAKnowsBest | Sivalc.com