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TheFutureOfCannabis.com







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#### Randall Huft



Randall Huft is president and creative director at the Innovation Agency, an advertising, branding, and public relations firm specializing in the cannabis industry. While working with blue-chip companies including AT&T, United Airlines, IBM, Walgreen's, American Express, Toyota, and Disney, he discovered what works, what doesn't, and how to gain market share.

#### Brian Hull



Bryan Hull is chief executive officer at EthoEx Corporation, a technology company focused specifically on cannabis applications. The company reaches production-scale hemp oil processing, mobile extraction platforms, industrial-scale fractional distillation and isolation technologies, manufacturing, engineering, cloud-based software monitoring, and analytics.

EthoEx.com

#### Jared Mirsky



Jared Mirsky and his award-winning cannabis-focused branding and marketing agency Wick & Mortar have helped shape the cannabis industry since 2009. Rebranding cannabis is his mission, and he aims to accomplish the goal by helping to educate the industry about the power of successful branding and the impact it has on the world. Despite his professional successes, he considers his son his greatest achievement

WickAndMortar.com

#### Cullen Raichart



Cullen Raichart, founder and chief executive officer at GreenBroz Inc., is a mechanical engineer, inventor, and veteran of the United States Armed Forces. A pioneer in the field of automation, he designs and manufactures GreenBroz machines in the U.S., providing cutting-edge solutions to the growing cannabis and hemp industries worldwide.

Green Broz.com

#### Darren Roberts



Darren Roberts is co-founder and chief executive officer at Green Mile Holdings, a provider of consumer mobile products and enterprise technology systems.

GMH offers product data insight, proprietary technologies, machine learning consumer data platform HighQ, and social network High There! Roberts previously worked in the financial lending sector for more than twenty-three years.

GreenMileHoldings.com

#### Dylan Sheji, Esq.



Dylan Sheji, Esq., is legal team manager at CannaRegs. He earned a law degree from the University of Colorado, Boulder, where he focused on cannabis. Sheji joined CannaRegs as a legal research analyst in 2017. He has hosted several webinars about topics related to cannabis and hemp, from in-depth looks at state-specific systems to general issues and concerns that affect the hemp industry.

CannaRegs.com

#### Kary Radestock



Kary Radestock brings more than twenty years of award-winning print and packaging expertise to some of the top brands in the world. She launched Hippo Premium Packaging in order to fill a need for professional, compliant packaging, brand development, and graphic design in the emerging cannabis industry. HippoPackaging.com

#### EDDIE OZZIE WINNER AWARDS

Congratulations to the *mg* team, and the entire cannabis industry.

We are pleased to announce mg Magazine received the 2019 Folio: Ozzie Award for Best Design in the B2B category. This is not only a compliment to the mg team, but also tremendous recognition for the entire cannabis industry.

FolioMag.com



#### LETTER FROM THE EDITOR



#### **Bittersweet**

THE MERRIEST OF SEASONS is upon us once again, tempered again by challenges. Last year, in California at least, regulatory changes set to take effect January 1 forced a number of companies into an end-of-the-year scramble to comply. For economic and scheduling reasons, some were unable to meet new requirements and folded.

This year, the vaping-related lung injury epidemic—dubbed EVALI (E-cigarette or Vaping product use Associated Lung Injury) by the Centers for Disease Control and Prevention—caused consumer confidence in vapes to plummet, leaving some of the biggest manufacturers and extractors struggling. Several laid off significant numbers of employees, who now are struggling, as well, at a time when they can least afford disruption in their personal finances.

Welcome to the world of unintended consequences. In a laudable attempt to protect consumers, federal authorities dealt a monumental blow to a thriving industry sector. We can't fault them for urging caution, but tarring all products with the same brush was an extremely reckless move.

The feds won't say so, at least yet, but it's likely the tainted vapes came from the black market. ISO-accredited testing lab CannaSafe analyzed the contents of some popular brands—legal and illegal—and found distressing results. All the illicit cartridges contained dangerously high levels of cutting agents including vitamin E acetate, medium-chain triglyceride (MCT) oils, and polyethylene glycol. They also contained lead, heavy metals, pesticides, and significantly lower levels of cannabinoids and terpenes than advertised.

Legal vapes are not off the hook, however. CannaSafe found some produced vapor containing carcinogens like formaldehyde, carbon monoxide, and hydrogen cyanide—the same damaging byproducts produced by traditional combustion—when voltage and temperature reached certain levels.

As an industry, we are devoted to health and wellness. Products are tested, retested, and tested again to ensure their safety. Voltage and temperature never seemed like potential hazards, so vape batteries and other devices weren't pushed to their limits to determine how those variables affect the products they deliver. That is changing. Sadly, it took a major health crisis to reveal the oversight.

As we observe the various celebrations we observe this time of year, let's keep in mind the victims of the vaping-related-illnesses tragedy. If we can reach out to them and their families in some meaningful way, let's do so.

Let's also keep in mind those of our own who lost jobs as a result of the public health crisis. They suffer financially at a time they can least afford the hit. If you can hire additional team members, even temporarily, please do.

The industry will survive this challenge as it has survived others, though recovering consumer trust will require time and dedication. Dig in, folks. We-all of us-have roles to play outside and inside our industry family.

mg Magazine respects, admires, and appreciates everyone who strives to give better lives to those in need of a magnificent, and decreasingly maligned, herb. We wish you all health, happiness, and wonder during the holiday season.

Kathee Brewer

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#### **NEWS** BRIEFING



#### **CDC Discovers Possible Connection in Vaping-Related Lung Injury Cases**

ATLANTA — A 17-year-old boy received a double lung transplant to avoid what doctors termed "imminent death" after developing EVALI, or "E-cigarettes or Vaping product use Associated Lung Injury," which by November 5 had killed thirty-nine people in twenty-four states and left 2,051 more across forty-nine states ill.

Officials at the Centers for Disease Control (CDC) believe they've found a potential culprit: vitamin E acetate. The substance, commonly used as a thickening agent in topical and ingestible applications, had been a suspect almost from the beginning of the disease outbreak. The CDC made its tentative assessment public after testing fluid samples obtained from the lungs of twenty-nine patients suffering from EVALI. The agency also revealed 82 percent of the samples contained THC and 62 percent contained nicotine. Officials cautioned the statement does not represent a definitive conclusion, as tests involving multiple federal agencies are ongoing and other contributors to the syndrome—including compounds, chemical reactions, and the vaping process itself—may surface.



#### RESEARCHERS: CANNABIS MAY HELP **CANCER PATIENTS GAIN WEIGHT**

**HAIFA, Israel** — Twice-daily consumption of capsules containing a combination of THC and CBD extracts may help cancer patients gain weight and temper muscle loss,

according to an Israeli study published in the journal Integrative Cancer Therapies.

Researchers followed a group of patients with advanced-stage cancer for six months. At the end of the period, 17.6 percent of the subjects exhibited weight gain of at least 10 percent. Half maintained their weight. All self-reported improvement in appetite and mood as well as reduction in pain and fatigue after cannabis treatments.

Researchers also noted a decrease in tumor necrosis factor- $\alpha$  levels, which measure inflammation, though they said the decrease was not statistically significant.



#### MAKE IT SO

Sir Patrick Stewart, the British Shakespearean actor perhaps better known for portraving Captain Jean-Luc Picard in the Star Trek fictional universe, is castigating the British government for being slow to expand its medical cannabis program. Stewart, 79, lives part-time in the U.S. and treats severe arthritis in his hands with cannabis.

#### **CBD POSSESSION LEADS TO** LIFETIME BORDER BAN

Two Canadians were banned for life from entering the United States after they attempted to cross the border with CBD oil. Hemp-derived products containing less than 0.3 percent THC are legal in both countries, but U.S. federal law prohibits importation. In addition to banning the travelers, U.S. Customs and Border Patrol confiscated the products and fined each Canadian \$500.



#### California Suspends **400 Cannabis Business Licenses**

**SACRAMENTO, Calif.** — The California Bureau of Cannabis Control (CBCC) in early November suspended the licenses of 394 cannabis businesses regulators say had not complied with track-andtrace requirements used to monitor the state's supply chain. Businesses suspended included distributors, retailers, and delivery services. A spokesperson for CBCC called the suspended businesses "stragglers" who had missed the extended deadline for training and uploading data to the monitoring system and still needed to complete the process.

The suspensions are expected to affect 5 percent of California's legal cannabis supply chain. Cannabis industry advocates warned the move would encourage black market businesses to encroach further.



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#### RAPPER DRAKE LAUNCHES WEED LINE

In partnership with multinational, multi-vertical Canopy Growth, musician, actor, and fashion maven Drake launched More Life Growth Company, a fully licensed cannabis producer based in Drake's hometown of Toronto, Canada. Canopy Growth, backed by beverage alcohol giant Constellation Brands, also has brand relationships with Snoop Dogg and Seth Rogen.

CanopyGrowth.com



#### **NEIL YOUNG TANGLED IN RED TAPE**

U.S. immigration officials reportedly told prolific singersongwriter and Toronto native Neil Young he must re-take the U.S. citizenship exam—even though he passed the first time—because of his history of illicit marijuana use and involvement with people known to use cannabis. Young seeks U.S. citizenship so he can vote in the 2020 election.



#### **SLEEP ON IT**

In a Sensi Products survey of 246 anonymous respondents, 73 percent preferred cannabis edibles for dealing with insomnia. Of those, 91 percent reported they found the products effective. The study also revealed 84 percent of patients who had used both cannabis and pharmaceutical sleep aids found cannabis to provide better results with fewer side effects. SensiProducts.com

#### **PRODUCTS**

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KandyPens.com



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Airgraft.com

#### **Students Sue Colleges Over Medical Use Bans**

PHOENIX — Decisions in recent lawsuits could establish precedent for the legal rights of medical cannabis patients, at least on college campuses. Students in three legal states have sued their universities alleging the schools penalized them for medical marijuana use.

The schools, which have "zero tolerance" drug policies, argue they could lose federal funding if they allow any kind of cannabis use since the substance remains illicit under federal law.

In Phoenix, Gateway Community College expelled Sheida Assar when she



tested positive for cannabis on a drug test administered as part of the medical technician certification process. Assar argued she has polycystic ovary syndrome and uses medical marijuana to help with sleep. She sued, seeking a refund of tuition and other educational expenses.

Connecticut nursing student Kathryn Magner sued Sacred Heart University after a positive test result prevented her from participating in required clinical rounds.

Magner, a resident of Massachusetts, said she uses medical cannabis with a physician's recommendation in accordance with the law in her home state.

Connecticut does not prohibit medical marijuana use, but state law does prohibit public and private schools from discriminating against patients. The parties settled after protracted negotiations.

Kaitlin McKeon, another nursing student with state-certified patient status, filed suit against Nova Southeastern University in Florida after the school threatened to expel her when she failed a drug test. McKeon said that when she enrolled in courses the university specifically told her medical cannabis use would not be a problem.

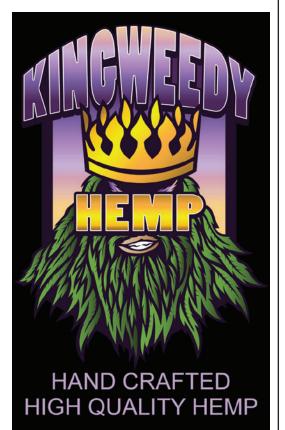
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#### **DECEMBER EVENTS**



#### CANNABIZ INNOVATION HUB CONFERENCE DECEMBER 4-5

Park Plaza Riverbank, London

A global convention focused on the European market, CIH provides a platform for enabling scale, efficiency, and industrialization of products and medicines in emerging legal markets. The event provides access to information and networking for those driving the fundamental shift in understanding and development of innovative applications for cannabis and cannabinoids. Topics to be addressed include health, science, and wellness, along with digital and business strategy innovation.

**CANNABIS-INNOVATION.COM** 

#### CBD EXPO WEST DECEMBER 5-6

Paradise Point Resort & Spa, San Diego
Focused on cannabinoids and natural products,
CBD Expo West offers a platform for broadcasting
product availability and sharing knowledge. The
event expects to host more than seventy-five
exhibitors and present a "substantial" lineup of
speakers and panel discussions.

**CBDEXPO.NET** 

#### MJBIZCON December 11-13

Las Vegas Convention Center, Las Vegas
The world's largest cannabis industry trade show
expects to host 35,000 attendees from more
than seventy countries for three days of exhibits,
education, and networking. Organizers expect more
than 8,000 C-level executives, 1,250 investors,
and 1,300 exhibitors. More than fifty educational
sessions will address topics including new cannabis
markets, finances and banking, global trends and
opportunities, business strategies, and retail.

MJBIZCONFERENCE.COM

#### THE EMERALD CUP DECEMBER 14-15

Sonoma County Fairgrounds, Santa Rosa, California

What began as a community celebration has become a global movement honoring each year's finest sustainable, organic, sun-grown harvest.

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#### Cannabinoids, Exercise & **Healthy-Minded Consumers**





The "lazy stoner" stereotype no longer applies among most U.S. consumers. Both GreenEdge™ dispensary sales trends and BDS Analytics' research suggest that cannabis and CBD consumption is instead often aligned with a healthy lifestyle focused on well-being. As more consumers enter the market, the trends featured in this infographic will likely continue to grow.



Roughly four in ten cannabis users watch what they eat for health reasons (38%), and highly prioritize their personal health/wellness (43%).\*

From Jan. – Aug. 2019, \$476.36M out of the overall \$4.51B (11%) in sales generated through dispensaries was spent on CBD products (AZ, CA, CO, OR, and NV markets).





More than six in ten cannabis users believe marijuana is healthier than alcohol, vs. one-third of canna-curious and one-tenth of canna-averse consumers.\*

Cannabis consumers are active: 50% say physical activity plays an important role in their personal care and 58% engage in physical activity on at least a weekly basis.\*





22% of Gen Z/Millennial cannabis consumers (age 21+) say they frequently pair cannabis with exercise – roughly equal to the % who pair cannabis with alcohol.\*





\*Source: BDS Analytics Public Attitudes and Actions Toward Cannabis in the US, Q1 2019.



This infographic was created exclusively for mg Magazine readers



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bdsanalytics.com

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## The Greatest **Story Ever Sold**

Advertising campaigns have the power to create societal change.

hroughout history, a few extraordinary advertising campaigns literally changed society. These tales have been told—and sold—to the masses and changed the course of human events.

Four simple words, "Make America Great Again," got a businessman and reality-TV star elected to the most powerful position in the world.

#MeToo is changing the value system of a nation by convincing women coming out of the shadows of harassment is safe.

In the 1930s and 1940s, De Beers' diamond sales plummeted because of the Great Depression and because diamond rings were not fashionable with the younger generation. In fact, before World War II, only 10 percent of American engagement rings contained a diamond. To combat sluggish sales, De Beers introduced an advertising campaign with the slogan "a diamond is forever" in order to persuade consumers not only is an engagement ring an indispensable purchase, but also a diamond is the only acceptable stone for the setting. Today, more than 83 percent of engagement rings feature a diamond center stone. De Beers' ability to move its market share from 10 percent to 83 percent is one of the greatest advertising successes of all time.

But perhaps the most compelling and world-changing marketing campaign ever was the selling of Christmas and the marketing of Santa Claus.

Christmas has its roots in the ancient Roman festival of Saturnalia. Depending on the

interpretation, Saturnalia was either a weeklong period of lawlessness or a non-stop party celebrated between December 17 and December 25. During this period, Roman courts were closed and normal social patterns were suspended, thus inviting unrestrained debauchery.

Saturnalia was by far the jolliest Roman holiday. The poet Catullus famously described the period as "the best of times."

Then, in the Fourth Century, Christian leaders appropriated the Saturnalia festival, hoping to take the pagan masses in with it. The problem was there was nothing intrinsically Christian about Saturnalia. To remedy the situation, Christian leaders named Saturnalia's concluding day, December 25, to be Jesus' birthday.

To this day, Christians worldwide celebrate Christmas as the birthday of Jesus, although many biblical scholars believe this was not likely the day or even the month of his actual birth. Nonetheless, the campaign to change the birthdate of the most influential figure in history was a huge marketing success.

But that was just the beginning. The way in which we celebrate Christmas in modern America largely was developed by two corporate giants.

Before Santa Claus, there was Saint-Nicolas—a tall, skinny bishop who was honored as a patron saint on December 6. How he eventually became the pot-bellied fellow we know today is quite remarkable.

The condensed story is Nicholas of Bari, an early Christian bishop, became renowned for his generosity and patronage of the poor. The bishop's legend as a giver of gifts gained traction after his death, and his relics eventually made their way to France, where he became the patron saint of Lorraine.

A hundred years later, the saint was well established in the culture and traditions of many countries, notably the Netherlands, where his Dutch name, Sint-Nicolaas, was changed to Sinterklaas.

But how did this austere saint, usually depicted as a tall, thin man accompanied by an angel, morph into Santa Claus, a bubbly red-cheeked, white-bearded, jolly old man?

While there were many hands in the transformation, one of the most influential figures was Clement Clarke Moore, who in 1823 penned a poem titled "A Visit From Saint Nicholas." Today, the poem is better known by its first few words: "Twas the night before Christmas."



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Moore described the Santa who is recognizable today and provided him with a slew of reindeer pulling a sleigh full of toys. Moore collaborated with Thomas Nast, a cartoonist working for *Harper's Weekly*, and the duo created many of the features we now associate with Santa, including a toy workshop based at the North Pole.

Then, in the early 1930s, the Coca-Cola Company commissioned the illustrator Haddon Sundblom to develop advertising images featuring Santa Claus. Sundblom's drawings are pretty much the image we have today. Coke's campaign ran for more than thirty years, enabling this view of Christmas to become ingrained in American culture.

Another American corporate giant, Montgomery Ward, is responsible for an additional famous chapter in the Santa mythology. Robert May worked at the department store and was instructed to write a cheery Christmas book to give away to shoppers. May decided to make a reindeer the central character of the book, and thus Rudolph the Red-nosed Reindeer was born. Shoppers loved the poem. Within a few

Perhaps the most compelling and world-changing marketing campaign ever was the selling of Christmas and the marketing of Santa Claus.

years, more than 6 million copies were given out for free.

Shortly thereafter, the president of Montgomery Ward gifted the copyright to the poem to May, who published it as a book. It became an instant bestseller. May's brother-in-law, Johnny Marks, penned a song based on the poem. The song was recorded by Gene Autry and went on to become one of the top-selling records of all time.



So, there you have it: a condensed history of how two American corporate giants, Coca-Cola and Montgomery Ward, transformed Christmas into the holiday we know and celebrate today.

And that's a marketing success for the ages.

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## Why Stop at Quantitative Data?

Contextual data helps to create a more detailed picture.

hen it comes to market research, quantitative data is king. Marketers want to dive deep into numbers to inform their company's next steps. How many people are using their products? What's the demographic breakdown? Which products are most popular? An abundance of quantitative data is collected daily in the cannabis industry. For instance, we know product sales spiked over Mother's Day and Father's Day weekends (my, how times have changed). Data analysts tracked by state the average price per ounce of high-quality marijuana in 2018. According to a recent Forbes article, such data is being used to manage growing and delivery activities and cut down on inefficiency.

Quantitative data is crucial, but it only tells part of the story. It gives the "what" but not the "why." And in the "why"—what's called qualitative data—we get a more complete picture of consumer trends.

For example, the numbers might indicate a specific brand of CBD drink is popular in a certain city, but the data point doesn't explain why that's the case. Perhaps buyers really like the flavor, or maybe the beverage is the only one stocked in the city's single dispensary. Without other contextual data, some quantitative statistics mean nothing at all.

In the example above, if the situation represents the former, then the manufacturer and retailer can say, with confidence, they have a strong market for that product. But if it's the latter, they can't yet make that claim. Without talking to the customers to find out why, the owner might determine he miscalculated what to stock and made unfortunate purchasing decisions. The truth, however, may be people actually resent the customer service in the store and don't like shopping there.

Knowing the "why" behind the numbers, the motivations and emotions, can help cannabis manufacturers and retailers gain a more nuanced—and, therefore, more informative understanding of consumer behavior.

Now for the obvious question: How does one capture qualitative data? Generally, qualitative data is collected via one-on-one interviews, focus groups, open-ended questions on surveys, observations, and action research (active involvement in a change process while conducting research). The main benefit is the information tends to be richer and provides deeper, more nuanced insight into the subject of investigation. Clear disadvantages to this approach exist, however.

Because gathering qualitative data involves one-on-one interaction, the process is time-consuming and costs much more than collecting quantitative data. That often leads to small sample sizes, leading to potential for interviewee bias, conscious or not, to impact what a company safely can claim based on the data. Furthermore, analyzing qualitative data takes judgment and even linguistic skills to parse wording; you can't simply run a report and obtain relevant analyses.

In many cases, capturing both quantitative and qualitative data-known as mixedmethods research—can provide researchers with the best of both worlds: large sample sizes, the ability to run analytical reports quickly, lower costs, time efficiency, and richer information that helps tell the full story. Often, the empirical data provides the base and the interviews back it up. It's a great example of the whole being greater than the sum of its parts.

Many industries use mixed-methods research to gain better understanding of their market landscape and inform business decisions. For example, the banking industry has used the combination research method to determine consumer perceptions of trust, risk, the usefulness of mobile payments, plus consumer credit trends by age. The Society of Chemical Industry conducted mixedmethods research to study Mid-Atlantic consumers' fresh and processed peach purchasing behaviors to determine whether packaging certain numbers of peaches together, providing information about nutritional content, and other factors would increase purchases. Using both quantitative and qualitative data can yield a veritable treasure chest of valuable information when looking at consumer website usage. The applications are endless.

Lots of quantitative cannabis data exists, but far from enough qualitative data is available. That's a shame, because it means we're making decisions without fully understanding what's taking place. Pairing quantitative and qualitative data provides companies powerful consumer intelligence, which can help drive not only product development and marketing but also cultivation, packaging, and delivery.

That being said, the cannabis industry as a whole needs to invest in collecting-and sharing-more user feedback and other qualitative data in order to make the best, most informed decisions possible.



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Debby Goldsberry, Executive Director, Magnolia Wellness

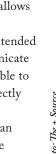


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Compassionate, knowledgeable staff is key to dispensary success.

## **Creating the** Perfect Budtender

Training benefits everyone, but not everyone benefits from the same kind of training.

ften referred to as budtenders, employees who interact directly with dispensary customers are the face of the industry. They shape the consumer experience. Managers who invest in their skills and education are investing not only in individuals, but also in consumer welfare, the industry's future, and—not coincidentally the shop's bottom line.

There is no denying advanced scientific, medical, and strain knowledge are among the most valuable attributes budtenders can possess, and all those may be learned. What arguably may be even more important, however, is compassion—and it's extremely difficult to teach that skill.

"We get a lot of sensitive questions," said Kim Lester, director of human resources at Las Vegas dispensary The + Source. "We hear questions about how cannabis interacts with seizure disorders, with cancer, with Alzheimer's, etc. Product knowledge is vastly important, but it can be taught. Empathy is a personality trait."

Only after she has determined an applicant's empathic ability does Lester make a job offer. New hires go directly into an on-the-job training program. "Shadowing more experienced team members is vital," she said. "We do regular product training and cannabis education, but no matter how thorough your classroom material is, it won't equal a day spent listening to live questions and answers."

Lester's new staff members aren't made to feel they must have all the answers immediately. "There's value in being stumped by a customer and having to do on-the-spot research," she said, adding honesty and willingness to find answers are far more important than encyclopedic knowledge. "Winging it" is tantamount to sin. "The moment a customer hears something they know to be false, trust is lost," Lester said.

Cannabis consumers are a diverse bunch, so dispensary staff members must be patient and understanding. "Whether a customer is entirely new to consuming cannabis or they are ready to revisit an 'old friend,' everyone needs a bit of handholding," said Erika Henika, general manager at San Jose, California, dispensary Caliva.

Like the customer pool, all employees are unique individuals with unique needs, Henika said. A one-size-fits-all approach to training may not work. "We take new employees through our training programs that include basic to advanced cannabis knowledge," she said. "Each employee takes an initial assessment so their training can be modified as needed." Like Lester, Henika has new staff members shadow experienced employees in order to learn.

Henika also relies on outside help to educate her staff. All vendors doing business with Caliva are required to provide staff training sessions. This allows Caliva staff members to understand individual products, how they are intended to be used, and how best to communicate benefits to customers. "The staff is able to ask questions and communicate directly with the source," she explained.

Although no amount of training can thoroughly prepare employees for the reality of working on a dispensary floor,





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#### THE ULTIMATE PARTY TOOL





Arguably more important than knowledge is compassion.

Henika said having a least some experience in other industries can be helpful. "We appreciate experience working with the public, teaching, engaging, and having an overall helpful nature," she said. "If candidates have experience in a traditional retail environment that maintains a high standard of service, then they are already well prepared."

Paul Hartje, director of retail customer experience at Denver's Seed & Smith, realizes just how much a shop relies on its staff to succeed. "Budtenders are the hospitality ambassadors for not only our business, but our industry as a whole," Hartje said. "If they do not deliver a positive experience for the guest, they can damage the public view of our brand and continue perpetuating the negative connotation of cannabis."

While Hartje is open to candidates with all types of experience, he has found applicants with backgrounds in hospitality, customer service, and sales already possess many of the necessary skills required to thrive in a dispensary setting. "At the end of the day, we are asking budtenders to be not only salespeople, but also act as brand ambassadors who deliver a positive experience for our guests," he said.

After a candidate who demonstrates compassion and a willingness to learn is selected, they are helped to refine their skills. Training at Seed & Smith includes cash handling, the shop's point-of-sale system, product education, and regulatory compliance. While compassion and product knowledge undoubtedly are critical to the customer experience, it takes only one compliance error to cause major headaches. Hartje limits the possibility by requiring team members to complete a responsible vendor training program.

Because budtenders tend to change jobs frequently, some hiring managers look for candidates who already have completed independent training programs. Hempstaff offers cannabis certifications for aspiring dispensary workers, drastically reducing the time and money shops spend to train new hires. Chief Operations Officer Rosie Yagielo has some advice for dispensary operators looking to hire staff members who are ready for the job. "Listen carefully for street slang versus professional words," she said. Applicants with a solid grasp of cannabis vernacular may already have sought training. "Candidates who have taken training classes to get ahead of their peers, usually with their own funds, tend to be more motivated to find employment," she explained.

Hempstaff's Dispensary Agent Training is designed for more than just aspiring budtenders. "It's helpful for owners to have the same knowledge and perspective they expect their dispensary agents to have," Yagielo said.

"If candidates have experience in a traditional retail environment that maintains a high standard of service, then they are already well prepared."

-Erika Henika, general manager, Caliva

The curriculum offered by Hempstaff includes more than generic information and industry jargon. For example, courses address cannabis biology and how it interacts with the human body. "We cover the top dozen cannabinoids and terpenes, because that's what makes cannabis work," Yagielo said. Hempstaff has trained dispensary staff members in twenty-three states and tailors its curriculum to each specific market. "We review the top twenty cannabis products available in that state and even conduct a mock sales transaction."

Hempstaff also assists students with professional services, helping to deliver polished candidates to the job market. At the end of their coursework, students review best job search practices as well as cover letter and resume creation. Finally, applicants take a twenty-question multiple choice test and must score 75 percent or higher to pass.

Yagielo is passionate about promoting best practices for dispensary staff, because she believes properly trained budtenders can propel the industry's reputation forward as well as help shops become more profitable. But as complex as Hempstaff's curriculum is, the best predictor of a shop's success boils down to one very basic concept. "It's simple really," she said. "People like to buy from people they like. A personable, educated agent is going to be much better for sales."



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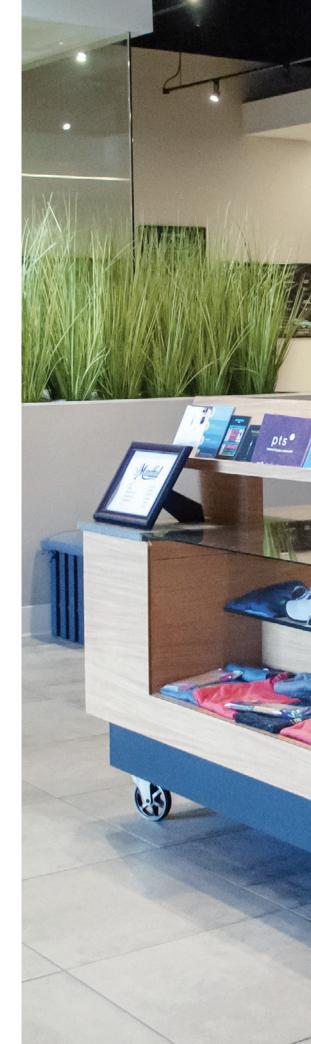


## A Study in Mindful-ness

The Illinois dispensary blends sly references to the past with a clear vision of the future.

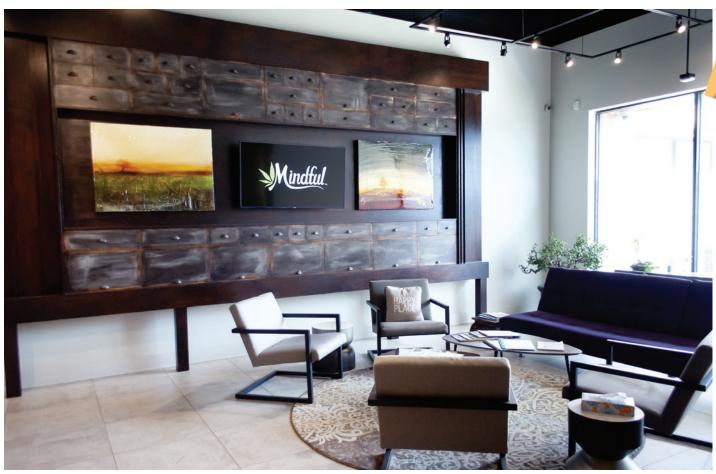
> rom the outside, Mindful is not the most impressive building in the neighborhood. Located in a suburban Chicago industrial strip mall, the all-brick edifice is bland and uninspiring. The exterior is deceptive, however: Inside, the dispensary demonstrates the old aphorism "beauty is more than skin-deep."

> Step through the front door, and the lobby immediately impresses. Two massive, antique wooden cabinet-like structures containing a multitude of small drawers dominate the space, evoking a turn-ofthe-nineteenth-century Midwest apothecary. Playing on the vintage aesthetic, a smattering of chalk-art menus created by patients adorn the walls. Streetlights visitors might have expected to find outside the shop instead sprout at strategic locations indoors. "One of our favorite design highlights is the full-sized streetlights surrounding the sales counter," said Kurt Berry, a former commodities trader and now Mindful's general manager. "They are the exact ones you see along busy roads or in parking lots, and they symbolize the back-alley way of buying cannabis in previous times."





#### RETAILING



Sleek monitors built into a wall of drawers scroll photos of products, sales flyers, and other content.



That's where the vintage design stops, in favor of high-tech, contemporary elements. Sleek monitors built into a wall of drawers scroll photos of products, sales flyers, and other content through a platform called Budtender TV. Tablets blinking full menus with live pricing and availability dot the sales area. Gleaming glass counters float above well-lit display cases, some of which contain cannabis products while others highlight glassware, accessories, and branded clothing. A few of the display cases are on wheels and may be moved off the sales floor to accommodate special events—cooking and rosin-pressing classes, glass blowing demonstrations, and cocktail parties with live music, for example—or for high-traffic sales days such as 420.

Once checked in, returning patients may wander about the facility interacting with budtenders and each other or lounging in a large circle of modern Crate & Barrel chairs orbiting around a sleek wooden coffee table. Views of the city are framed by grand, bright windows.

"We didn't get every design concept right, but this one was spot on," said Berry. "Mindful is more than 6,000 square feet [of floor space], and with all of this square footage we wanted to create a pampered and welcoming shopping experience for our patients. Some are in a hurry and get right down to [making purchases], while others enjoy the luxury of taking their time and being comfortable. We often see patients having conversations with one another while enjoying their leisurely pace."



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#### RETAILING



The shop combines tones of brown, beige, and gray to create a soothing environment.

The shop's palette—a mélange of browns and beiges with splashes of gray—was designed to soothe troubled waters and calm the spirit. Painted cork covers the countertops. "Although it is slightly soft and porous, it is durable," Berry said. "[Painted cork] is also a fraction of the cost of marble or granite." Italian ceramic floor tiles pull walls and counters together.

New patients are treated to a different, but no less sumptuous, experience. Counselors spend an average of thirty minutes with each new guest in a comfortable, private-without-seeming-claustrophobic consultation room surrounded by three-foot-high silk grass plants. Hand-painted plumes of smoke adorn the wallpaper, along with a funky, utterly random painting of a frog. "[The frog] has no significance or meaning," said Berry. "We just like it."

Mindful sees an average of 150 patients daily, but Berry expects that number to grow significantly when recreational use becomes legal in 2020. Although he knows competition for adult-use consumers will be fierce, Berry feels Mindful is well positioned for the transition.

"We often use the phrase 'proudly independent," he said. "Out of the fifty-five medical dispensaries in Illinois, only about fifteen are not owned by cultivators. Mindful is one of them."

> 1433 W. Fullerton Avenue, Suite C Addison, Illinois 60101 MindfulMMJ.com









## How Decentralization Could Transform Manufacturing

he cannabis industry has come a long way from the flower strains and crude oil-extraction practices seen at the onset of legalization. In this new age of mass industrial oil extraction and vertical grows, the biggest need is a system that can process large amounts of raw plant material into high-quality concentrates for retail.

Decentralized manufacturing gives companies the ability to manufacture goods across multiple locations, mitigating the cost of shipping and long wait times. Moving toward decentralized manufacturing will provide cultivators with mass quantity and high-quality oil extraction in a fraction of the time it takes for a centralized manufacturer to produce and ship the product. Mobile ethanol extraction platforms offer cultivators the same benefits normally produced in-house, but on site for those who are unable to maintain large-scale extraction equipment.

Currently, grows that don't operate their own equipment on site contract with a centralized manufacturer to provide biomass for the manufacturer's products. An extraction partner then extracts using ethanol or a similar solvent, and upwards of 1,000 gallons of raw, cannabis-rich ethanol is shipped to a manufacturing facility. From there, the manufacturer must filter the tincture, remove the solvent, and package the oil to be shipped back to the cultivator for a profit share or split based on the amount of bulk concentrate extracted.

The centralized model generally benefits the manufacturing company, maintaining one central factory with extraction equipment that can produce a large quantity of product, cutting down on costs. In this model, the cultivator is unable to uniquely customize their extract due to manufacturers' inability to drastically change equipment or settings because they are using the same equipment for many clients. In this fast-changing industry, mobile extraction manufacturers can customize the extracts to keep up with trends, unlike centralized manufacturers. The centralized model for the extraction industry is outdated, time-consuming, and less profitable for cultivators.

At the outset of legalization, only large companies were able to maintain a vertically integrated manufacturing process from seed to sale. Mobile ethanol extraction companies

make it possible for businesses of all sizes to manufacture extracts. With a decentralized manufacturing process, mobile extraction allows for the exclusion of shipping and wasted time by simply extracting from the biomass on site at a cultivator, where the plant material is in its freshest state. From there, on site, the full-spectrum oil can be profit-shared right then. The cultivator gets as much high-quality extract as needed, in a decent time frame, without ever having to leave the facility where the original plant material was grown. At this point, the manufacturing and cultivation partners can issue their agreed-upon profit or product split and move along to the retail portion.

Decentralized mobile ethanol extraction platforms offer same-day setup and processing with trained operators, thus circumventing downtime due to unforeseen circumstances such as mechanical or technical failures and new equipment installation/purchasing. Decentralizing oil extraction gives businesses the ability to oversee the manufacturing process, communicate with representatives, and create unique oils rapidly. Decentralized manufacturing will become the standard for cultivators who want to produce high-quality extracts without the need for permanent onsite equipment and high machinery overhead alongside their already robust equipment for growing.

The industry is maturing and scaling at a fast rate, and manufacturing and production processes need to keep up with the demand for high-quality, large-batch products for businesses and consumers. Mobile platforms are revolutionizing the extraction manufacturing industry by providing their customers with fully integrated ethanol extraction services on site. The decentralized model is projected to become the standard model for companies that need to outsource the extraction of raw materials.

Mobile manufacturing reduces costs for cultivators, speeds up processing time, and lets cultivators oversee the extraction process without forgoing quality or quantity. The centralized model should be a thing of the past.







## Be Like Apple

Learn to succeed using brand equity.

he world of cannabis is growing up. Consumers are savvy and sophisticated, and they want more than just being able to buy products they like. Today's consumers want brands that align with their lifestyle and with their ideals; brands they can recognize instantly and know what they stand for.

In other words, if you want to develop a successful cannabis company, then you will have to build up your brand equity.

What is brand equity? It's the commercial value generated by consumer perception of a company's or product line's name, irrespective of the specific products or services offered. There are few better examples of a company with strong brand equity than Apple. Although many products the company sells are equal to their competitors' product in terms of speed, processing power, and features, consumers are willing to pay more for Apple products simply because of the company's brand name.

The concept is especially important in the cannabis industry. As the market matures, consumers will develop loyalty to companies and their products. Entities that have built up their equity will have a much higher chance of capturing loyal customers and developing a strong consumer base. If you want your company to survive the next ten—or even five—years, you must work to build brand equity.

How does one build brand equity? Step one is to create a strong identity. Who are you and what makes your brand special? Identify your ideal customer, and then imagine the thought processes they go through before purchasing a product or service and how your brand fits into that process. Once you know who you are and know your ideal customer's profile, you will be able to address the needs of customers, meet them where they are, and build a relationship.

The next step is identifying the meaning and values behind your brand. There are two parts to creating meaning: your products' performance and their image. Performance refers to how well your wares meet consumers' expectations. Is your product or service reliable and consistent? Is your product or service effective? Does your brand keep the promises it makes?

Image refers to customers' perception of how well your company, products, and services address their social values and psychological needs. For example, if your customers value sustainability, are you taking steps to ensure your brand is environmentally friendly? In short: Keep your promises to your customers and champion their values. Consumers constantly judge brands on quality, credibility, responsiveness to their needs, and performance compared to the competition. You want to remain cognizant of their emotional responses and how you respond to those feelings.

Ask yourself how your company can enhance its credibility. What can you do to improve product quality (both real and perceived)? Is your marketing addressing consumers' needs? Does it resonate with your target market? How well does your brand measure up against competitors? What can you do to enhance consumers' emotional responses to your brand?

Finally, you want to create a bond with customers that transcends the normal transactional nature of commerce. You want customers to feel almost as though your brand is part of their family. Ask how you can engage customers better or more often. Do they feel a sense of community with your brand? Are they repeat purchasers? Do they recommend your products?

Find ways to build customer loyalty and reward those who are passionate about your products or services. A simple rewards program goes a long way toward building customer loyalty. List all the ways you can resonate with your customers and start developing a plan of action.

In a highly competitive market, brand equity will become increasingly important. By attaching a sense of value and loyalty to your brand's name, your company will be better able to distinguish itself from its competitors and build a foundation on which it can continue to succeed for years to come.



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Across all industry sectors, these companies provide benefits and perks that show they understand the importance of employee satisfaction.

#### **Methodology**

mg Magazine's second annual Top Employers report celebrates exceptional workplaces and the people behind them. Each year, during a long, exacting process, hundreds of nominations are painstakingly reviewed to single out the best and brightest the cannabis industry has to offer. To be eligible, companies must have participated in the industry for more than one year, be headquartered in the United States or have a U.S. divisional headquarters, and employ a minimum of ten full-time staff members. Finalists are chosen based on a number of factors including employee satisfaction, benefits and perks, company culture, social responsibility, and charitable giving.

This year's competition was a close race with finalists boasting a plethora of exceptional characteristics. The honorees span every facet of the industry, with 32 percent whose primary business lies in cultivation and horticulture, 30 percent in product manufacturing, 14 percent in technology, 8 percent in science and labs, 6 percent in media, 2 percent in retailing, and the remaining 8 percent in ancillary services and other categories. The range of finalists' longevity increased dramatically over 2018 numbers with the emergence of seasoned mainstream businesses entering the market; one company was founded in 1943. Also noteworthy and indicative of the industry's maturation: 24 percent of honorees are publicly traded, with many offering stock options within their benefits packages.

The cannabis industry has seen a great number of successes and a fair amount of strife since its inception, but perhaps the most challenging obstacle it has faced to date is the e-cigarette or vaping product use associated lung injury (EVALI) epidemic that began spreading in summer 2019. An immediate—and uncharacteristically rash—response from Centers for Disease Control and Prevention warned the public vaping could be dangerous and to avoid all vaping devices, regardless their origin. The action has had a devastating financial impact on the entire industry, resulting in large-scale layoffs. Several companies initially qualifed for this year's list, but the unforeseen consequences of the EVALI outbreak resulted in their disqualification. We sympothize with these businesses and are optomistic they will recover soon and be back in the rankings again next year.

The following fifty companies represent the best of cannabis employers. They understand our industry must rise to meet the demands of mainstream corporate culture while maintaining the spirit, goodwill, and compassion sewn into the heritage of American cannabis.

To them, we tip our hats.

#### **4Front Ventures**







HO: PHOFNIX **FOUNDED: 2011** EMPLOYEES: 100+ JOB OPENINGS: 20 + **PAID EDUCATION: YES WEB:** 4FRONT VENTURES.COM

Attracting and retaining talent is a top priority at this publicly traded company and "doing so starts with paying [its] employees living wages." Regular checkups are conducted to ensure salaries remain on par with "similarly situated positions in other industries." On top of fair pay, the company covers 100 percent of its staff's health and life insurance premiums, provides paid training, offers a 50-percent product discount in its retail stores, and encourages career growth.

#### **Advanced Nutrients**









**HQ:** LOS ANGELES **FOUNDED: 1999** EMPLOYEES: 100+ JOB OPENINGS: 11-20 **PAID EDUCATION: YES WEB:** ADVANCEDNUTRIENTS.COM

In addition to medical and dental insurance and a 401(k) retirement plan, Advanced Nutrients provides catered meals, unlimited daily coffee and snack service, ergonomic workstations, subsidized gym memberships, team outings, special reward programs, and complimentary products. The company is developing a program to teach team members how to grow and nurture their own cannabis. Its Humanity Heroes initiative annually provides hundreds of thousands of dollars in assistance to the homeless in and around Los Angeles.

#### AKERNA (formerly MJ Freeway)



HO: DENVER FOUNDED: 2010 EMPLOYEES: 100+ JOB OPENINGS: 6-10 **PAID EDUCATION: NO** WEB: AKERNA.COM

Publicly traded Akerna pays 100 percent of employees' medical, dental, and vision insurance in addition to offering more than fifteen vacation days per year and flex-time schedules to encourage work/life balance. A collaborative corporate culture is heavily influenced by an initiative aimed at empowering women in the workplace. The One Woman Challenge, launched inside and outside the industry, encourages mentoring women, and the company's C-suite team devotes significant time to the endeavor.

#### **Apeks Supercritical**



HQ: JOHNSTOWN, OHIO FOUNDED: 2001 **EMPLOYEES: 26-50 JOB OPENINGS: 1-5 PAID EDUCATION: YES** 

WEB: APEKSSUPERCRITICAL.COM

An atmosphere of transparency "helps foster a sense of commitment and camaraderie" throughout this company, where monthly employee meetings keep everyone abreast of pertinent information like financials, the state of the company, future plans, and product innovations. The company hosts an annual gift drive for the American Legion and supports local charities and animal rescue organizations. Rewards are given to peer-nominated employees for going "above and beyond their job description."

#### Anresco Laboratories



**HQ**: SAN FRANCISCO **FOUNDED: 1943 EMPLOYEES:** 51-100 **JOB OPENINGS: 1-5 PAID EDUCATION: YES** 

WEB: CANNABIS.ANRESCO.COM

Family owned and operated since its founding in 1943, Anresco extended its services to cannabis in 2017. With tenured benefits like a one-year retention bonus, semi-annual performance reviews and bonuses, and increasing paid time off based on years of service, loyalty is key-especially since the company "promotes almost exclusively from within." Employees enjoy 100-percent covered Kaiser health plans, dental and vision reimbursement, daily breakfast and snacks, monthly lunches, and nine paid holidays yearly.





















### **HONORABLE MENTIONS**

A handful of companies barely missed the list but earned our respect and deserve an honorable mention.

#### ANTHEA 🕸

**HQ:** FORT COLLINS, CO **FOUNDED: 2017 EMPLOYEES**: 26-50 **WEB:** ANTHEARCS.COM

#### CANNACRAFT INC.

HQ: SANTA ROSA, CALIF **FOUNDED:** 2014 EMPLOYEES: 100+ **WEB:** CANNACRAFT.COM

#### EAZE INC.

**HQ:** SAN FRANCISCO **FOUNDED: 2014** EMPLOYEES: 100+ **WEB:** EAZE.COM

#### FLOW KANA 🕹

HQ: OAKLAND, CAIF. **FOUNDED: 2014 EMPLOYEES: 100+ WEB:** FLOWKANA.COM

#### GENERAL CANNABIS CORP.

**FOUNDED:** 2013 **HQ:** DENVER WEB: GENERALCANN.COM EMPLOYEES: 100+

#### HARVEST HEALTH & RECREATION INC. 4 @

HQ: TEMPE, ARIZ. FOUNDED: 2011 EMPLOYEES: 100+ **WEB:** HARVESTING.COM

#### HYPUR 🕸 😉

**HQ:** SCOTTSDALE, ARIZ **FOUNDED: 2014** WEB: HYPUR.COM **EMPLOYEES:** 26-50

#### IANTHUS CAPITAL HOLDINGS 🔮 🚳 🐷

**HQ:** NEW YORK **FOUNDED: 2013** EMPLOYEES: 100+ **WEB:** IANTHUS.COM

#### 

**HQ:** DENVER **FOUNDED: 2009** EMPLOYEES: 100+ **WEB:** LIVWELL.COM

#### PAX LABS INC.

**HQ:** SAN FRANCISCO **FOUNDED: 2017** EMPLOYEES: 100+ **WEB:** PAX.COM

#### PHYLOS BIOSCIENCE

HQ: PORTLAND, ORE. **FOUNDED: 2014 EMPLOYEES:** 50-100 WEB: PHYLOS.BIO

#### SWEET GRASS KITCHEN @

**HQ:** DENVER **FOUNDED: 2009 EMPLOYEES:** 26-50 WEB: SWEETGRASSKITCHEN.COM





















#### **Baked Bros**



**HQ: PHOENIX FOUNDED: 2014** EMPLOYEES: 26-50 JOB OPENINGS: 6-10 **PAID EDUCATION: YES** WEB: BAKEDBROS.COM

Employees tout the company's culture of personal betterment and professional development, "founders [who] have a true passion for the community," and a company-wide drive to "change the negative stigma surrounding cannabis." Each month the team makes sandwiches and personal hygiene packs for Change Society's #LunchBag program and delivers them to those in need. Perks like team meals, group activities, concert tickets, and product discounts combined with benefits like paid training and self-help workshops add to employee satisfaction.

#### **BDS Analytics Inc.**



HQ: BOULDER, COLO. **FOUNDED: 2014** EMPLOYEES: 51-100 **JOB OPENINGS: 6-10 PAID EDUCATION: YES** WEB: BDSANALYTICS.COM

Despite mainstream benefits like 100-percent paid medical, dental, vision, life, and disability insurance; company-matched 401(k) with immediate vesting; stock options; and fifteen days paid time off annually, employees say they feel empowered by an atmosphere they consider more startup than corporate. Onsite classes including yoga and dispensary discounts are plusses. Volunteerism and community outreach include feeding the hungry and other organized activites in the greater Boulder/ Denver area along with mentoring local students and graduates.

#### **Bloom Farms**





HQ: OAKLAND, CALIF. **FOUNDED: 2014** EMPLOYEES: 51-100 **JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: GETBLOOMFARMS.COM

Nationally recognized for social and environmental responsibility, Bloom Farms is driven by two core values: "give something amazing back" and "be good to everyone, including yourself." Among its many charitable programs, BF provides a healthy meal to a needy individual for each of its products sold. The company boasts a diverse, inclusive culture and offers a standard health benefits package as well as unlimited paid time off, performance bonuses, tuition reimbursement, and stock options.

#### Boveda Inc.







HQ: MINNETONKA, MINN **FOUNDED: 1997** EMPLOYEES: 26-50 **JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: BOVEDAINC.COM

A commitment to breaking the cycle of poverty, hunger, and addiction heavily informs the company's culture and financial generosity. Boveda offers flexible work schedules, bonus paid time off during holiday weeks, 401(k) matching after six months, a \$75 monthly phone allowance, and contributions toward health insurance premiums. Afternoon happy hours are frequent, as are onsite barbeques, potluck lunches, and educational "lunch-andlearns."The company's family-like environment is reflected in showers for new "Boveda babies."



#### **Caliva**











HQ: SAN JOSE, CALIF. **FOUNDED: 2015** EMPLOYEES: 100+ JOB OPENINGS: 20+ **PAID EDUCATION: YES** WEB: CALIVA.COM

Founded on the tenet "happy plants make happy people," Caliva's team comprises passionate, happy employees who strive to bring the power of plants to customers and community. As part of its commitment to social equity, the company supports the Clear My Record program and local initiatives that empower communities and champion the rights of children and families. Staff enjoys product discounts, quarterly swag giveaways, an employee referral program, dogfriendly corporate offices, and stock options.

















#### **Cova Software**



**HQ:** DENVER **FOUNDED: 2016** EMPLOYEES: 51-100 **JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: COVASOFTWARE.COM

Among the most expansive benefits and charitable giving programs on this list: Each employee is provided one paid-time-off day per quarter to volunteer, company retreats include "giveback days" in exotic locations, and fund drives receive matching donations. An innovative "buy your own birthday" time-off program costs participating employees \$50, which is donated to Free the Children. In addition to benefits including flex time and stock options are bereavement leave and six months of new-parent leave at 70-percent salary.



#### Canndescent





HQ: SANTA BARBARA, CALIF.

**FOUNDED: 2015** EMPLOYEES: 100+ JOB OPENINGS: 6-10 **PAID EDUCATION: YES** WEB: CANNDESCENT.COM

In a "fun-oriented culture" with opportunities for learning and growth—45 percent of employees earn promotions within their first six months—Canndescent says its people make the company special. Staff receives a comprehensive perks and benefits package that includes a monthly stipend toward medical costs; 100-percent covered premiums for dental, vision, and life insurance; equity in the company; product and gym membership discounts; and a 401(k) plan.

#### Cresco Labs









HQ: CHICAGO **FOUNDED: 2013** EMPLOYEES: 100+ JOB OPENINGS: 20+ **PAID EDUCATION: NO** WEB: CRESCOLABS.COM

Competitive pay, a comprehensive benefits package including 401(k), stock options, and more than fifteen days PTO yearly paired with perks like casual dress code, flexible schedules, daily lunch stipends, and ergonomic workstations attract top-notch leadership from Fortune 500 companies to publicly traded Cresco Labs. Staff is compensated six days yearly for time spent doing volunteer work, and Cresco's new Social Equity and Educational Development (SEED) program aids those negatively impacted by the war on drugs.

#### Curaleaf









HQ: WAKEFIELD, MASS. **FOUNDED: 2010** EMPLOYEES: 100+ JOB OPENINGS: 20+ **PAID EDUCATION: YES** WEB: CURALEAF.COM

Curaleaf is the largest pure-play cannabis company in the United States with more than twenty locations nationwide, employing more than 200 full- and part-time employees. Benefits and perks vary by location. Committed to the betterment of the communities in which its entities are located, the company leads local food drives and blood drives, supports schools by paying off students' lunch bills and installing vape detectors, and donates to local veterans' organizations.

#### **Flowhub**



**HQ:** DENVER **FOUNDED: 2015 EMPLOYEES:** 51-100 **JOB OPENINGS: 6-10 PAID EDUCATION: NO** WEB: FLOWHUB.COM

Core values—honesty, transparency, and inclusivity—drive the culture at Flowhub. From the C-suite down, "all voices matter." The company encourages sharing ideas and considers collaboration essential. To ensure its open environment endures, a "culture committee" is tasked with maintaining the cultural core as the company grows. Perks include an equity program, new-hire happy hours, dog-friendly offices, flexible schedules, and free coffee, beer, and kombucha on tap.















#### **ForceBrands**



HQ: NEW YORK **FOUNDED: 2007** EMPLOYEES: 51-100 **JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: FORCEBRANDS.COM

A job placement company with divisions in several industries, ForceBrands's HerbForce is its newest branch. While the company takes pride in its employee retreats and unique team events, corporate emphasis falls on "overall employee experience and how everything from career growth and management training to succession plans and flexible working hours come together to create a positive and productive environment." Health and dental insurance are provided.

#### **Future State Brands**





HQ: CULVER CITY, CALIF. **FOUNDED: 2014** EMPLOYEES: 51-100 **JOB OPENINGS: 1-5 PAID EDUCATION: YES** 

WEB: FUTURESTATEBRANDS.COM

Work-life balance is a top priority at Future State Brands, where employees are afforded unlimited paid time off. Management expects staff to take a least two weeks off annually, one at Christmas when the office closes down completely. Eleven paid holidays plus several half days make a total of at least thirty days PTO annually. Additional perks include company-paid continuing education, equity in the company, and a performance incentive plan that provides additional annual grants.

#### **Green Bits**





HQ: SAN JOSE, CALIF. **FOUNDED: 2014** EMPLOYEES: 100+ **JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: GREENBITS.COM

Green Bits offers a range of benefits and perks including telecommuting, unlimited paid time off, dog-friendly offices, and free beer and snacks. The company sponsors community-wide volunteer days and fundraisers at both its office locations, encourages employee growth inside and outside the office, and offers "programs and events aimed at employee and community elevation, and fun offsite [activities] as a way to say 'thank you."

#### **Green Peak Innovations**







**FOUNDED: 2016** EMPLOYEES: 100+ JOB OPENINGS: 11-20 **PAID EDUCATION: YES** 

**WEB:** GREENPEAKINNOVATIONS.COM

An impressive list of benefits and perks illustrates a culture "where employees are engaged, celebrated, and taken care of." In addition to the basics, the company provides short-term disability and life insurance, a 401(k) program, bonus incentives, and all required uniforms and shoes. Monthly staff lunches; regular outings, harvest celebrations, and holiday parties; and two paid days per year to volunteer or provide community service round out the package.

#### **Green Thumb Industries**







HQ: CHICAGO **FOUNDED: 2014** EMPLOYEES: 100+ JOB OPENINGS: 20+ **PAID EDUCATION: YES** WEB: GTIGROWS.COM

Publicly traded GTI stands out because of a large commitment to social causes. Monthly Inspire Impact days see the entire staff volunteering for causes including Special Olympics, suicide prevention, Walk for Hunger, My Block My Hood My City, blood drives, cleanup projects, veterans organizations, animal shelters, breast cancer awareness, and LGBT organizations. Perks including twice-monthly happy hours, offsite events, and generous time-off policies are among employee favorites.



#### Greenlane





HQ: BOCA RATON, FLA. **FOUNDED: 2005** EMPLOYEES: 100+ JOB OPENINGS: 11-20 **PAID EDUCATION: YES** WEB: GNLN.COM

Employees enjoy health insurance, dental insurance, 401(k) with match, and a promote-from-within policy. Healthy meals and snacks are made daily on the premises, and two company-wide events per year feature food, giveaways, and concert-style live entertainment. Multiple charitable projects and a mandatory recycling program demonstrate commitment to the community and planetary health. Tuition assistance, quarterly company-wide meetings, teambuilding exercises, and weekly coaching sessions are part of the company's training and development program.



#### **Honest Paws**



HQ: LEAGUE CITY. TEXAS

**FOUNDED: 2017 EMPLOYEES: 51-100 JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: HONESTPAWS.COM

For a company headquartered in a cannabis-averse state, Honest Paws impresses with a workat-home policy, unlimited paid time off, promotions from within, and opportunities to transfer to divisions in U.S. territories and on other continents. Everyone from the CEO down wears multiple hats, providing ample opportunity for personal and professional development. The company is committed to environmental protection, along with diversity and workplace equality, and in 2020 will launch a foundation devoted to animal welfare.

#### **Indus Holdings Inc.**





HQ: SALINAS, CALIF. FOUNDED: 2014 EMPLOYEES: 100+ **JOB OPENINGS: 6-10 PAID EDUCATION: YES** 

WEB: INDUSHOLDINGSINC.COM

The publicly traded company provides its 300 employees with health and dental insurance, paid educational opportunities, and a 50-percent discount on its brands. "Indus is committed to supporting the communities in which its employees live and work"; consequently, the company invests in, and encourages employee volunteerism at, charities and causes including Boys & Girls Club, Mixed Roots Foundation, Rancho Cielo, AIM for Mental Health, and the Workforce Investment Board for Monterey County.

#### Island Cannabis Co.



HQ: REDONDO BEACH, CALIF.

**FOUNDED: 2014** EMPLOYEES: 51-100 **JOB OPENINGS: 6-10 PAID EDUCATION: YES** 

WEB: ISLAND.CO

Island describes itself as a "forbenefit" instead of "for-profit" company because it "wants to leave this world a better place." It actively supports organizations focused on positive social change with charitable giving, team engagement, and organized volunteerism. In addition to providing health, dental, and vision insurance; paid education; a fully loaded kitchen; and indoor and outdoor workspaces, the company encourages work/ life balance with frequent staff get-togethers and unlimited paid time off.

#### **Jupiter Research**





**HQ:** PHOENIX **FOUNDED: 2015** EMPLOYEES: 26-50 **JOB OPENINGS: 1-5 PAID EDUCATION: YES WEB:** JUPITERRESEARCH.COM

In addition to standard benefits, publicly traded Jupiter provides financial bonuses plus career education, training, and advancement opportunities to encourage long-term employment. The company hosts holiday parties, team outings to sporting events, competitive fantasy football, a stocked kitchen, and monthly happy hours. Hydraulic desks in an open workspace with abundant natural light serve employee health. The company contributes to annual water and toy drives to benefit underprivileged area residents.

















#### KCSA Strategic Comm.





HQ: NEW YORK FOUNDED: 1969 EMPLOYEES: 51-100 **JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: KCSA-CANNABIS.COM

In addition to health and dental insurance, KCSA offers birthdays off, a flexible work-from-home policy, and paid days off to perform community service. Other perks include discounted gym memberships, a metro transit commuter benefit program, and team outings like cocktail hours, movie nights in the park, boat cruises, and baseball games. This year, the firm kicked off its social responsibility efforts with a companywide day of service at a New York City food kitchen.

#### Kikoko



HQ: EMERYVILLE, CALIF. **FOUNDED: 2015 EMPLOYEES**: 26-50 **JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: KIKOKO.COM

Kikoko provides four-plus weeks of paid time off annually, life insurance, a stipend for acupuncture and chiropractic care, onsite yoga classes, and gym memberships. The company employs fair-trade ingredients and 100-percent recyclable or compostable packaging, in addition to donating 20 percent of net profits to criminal justice reform. Fair pay and quarterly "town hall" meetings, along with bi-annual, mandatory diversity and sexual-harassment-prevention training, contribute to an equitable, safe, and respectful workplace.

#### **Kiva Confections**



HQ: OAKLAND, CALIF. **FOUNDED: 2010** EMPLOYEES: 100+ JOB OPENINGS: 20+ **PAID EDUCATION: YES** WEB: KIVACONFECTIONS.COM

Kiva's family-oriented culture is supported by generous paid-timeoff and educational policies, a fully stocked kitchen, free products and company-hosted meals monthly, family picnics and holiday parties, fully paid maternity and paternity leave, and a nursing mothers perk program. The company supports diversity and empowerment with inclusive hiring practices, donations to LGBT charities, and funding for local equity programs. A "talent infusion strategist" and safety-and-training manager contribute to career development.

#### **Koi CBD**

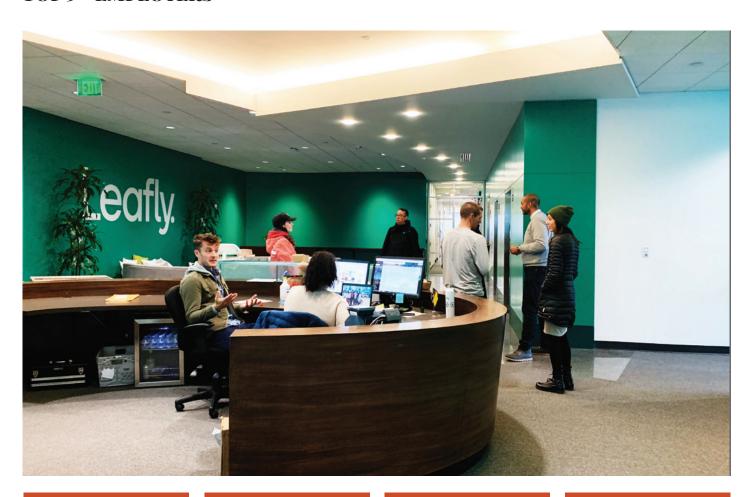




HQ: NORWALK, CALIF. **FOUNDED: 2015 EMPLOYEES:** 51-100 **JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: KOICBD.COM

Koi's Create Better Days program provides insurance and a generous paid-time-off policy in addition to a 401(k) program; quarterly company outings; birthday celebrations; use of a company recreational vehicle and vacation home; free meals; vehicles, phones, laptops, and gas cards; rewards for sales performance; and weekly professional-training and personal-development classes. A portion of pet products sales goes to animal rescue organizations, and the company sponsors benefit programs for military families.





#### Leafly







HQ: SEATTLE FOUNDED: 2010 EMPLOYEES: 100+ JOB OPENINGS: 11-20 **PAID EDUCATION: YES** WEB: LEAFLY.COM

"A career at Leafly combines the excitement of a startup, the social purpose of a non-profit, and the growth opportunities of a major corporation," according to one employee. Benefits include unlimited paid time off, 3.5-percent 401(k) match, biweekly free lunches, maternity and paternity leave, cellphone allowance, commuter transit benefit, and companypaid life insurance. The corporate headquarters' commitment to environmental sustainability includes elimination of plastic bottles, energy-efficient appliances, and a composting program.

#### Lowell Herb Co.









**HQ:** LOS ANGELES **FOUNDED: 2017** EMPLOYEES: 100+ JOB OPENINGS: 11-20 **PAID EDUCATION: NO** WEB: LOWELLFARMS.COM

A dog-friendly workplace, a kitchen stocked with healthy snacks, company parties, and unlimited vacation time top the list of perks at Lowell. The company's social equity and reparative justice programs stand out because they give special employment consideration to recently pardoned, non-violent cannabis offenders and offer a wide spectrum of resources to individuals hoping to enter the cannabis space. Lowell pays farmers a living wage and maintains a family-like culture in the corporate office.

#### **Mattio Communications**



**HQ:** NEW YORK FOUNDED: 2004 EMPLOYEES: 11-25 **JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: MATTIO.COM

The Mattio staff, 73 percent of whom are women, describe the company as a tight-knit family with values based on trust and integrity. Perks include paid educational opportunities, gym membership, lunch-and-learn events, staff retreats, flexible schedules, a work-from-home policy, unlimited paid time off, and an employee equity program. Health and dental insurance are provided. The company is a founding donor to the Last Prisoner Project and supports Athletes for CARE.

#### **Medically Correct**





**HQ:** DENVER FOUNDED: 2010 **EMPLOYEES:** 51-100 **JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: MEDICALLYCORRECT.COM

Low turnover rates and dedication to internal promotions and career advancement foster employee loyalty at Medically Correct. With both national and international expansions ongoing, team members have opportunities to relocate and help build the company's newest divisions. Employees cite positive incentives such as a "welcoming and open work environment," monthly staff meals, a 401(k) program, and discounted product pricing among favorite perks.





















#### Mile High Labs





HQ: BROOMFIELD, COLO.

**FOUNDED: 2016** EMPLOYEES: 100+ JOB OPENINGS: 6-10 **PAID EDUCATION: NO** WEB: MILEHIGHLABS.COM

Mile High team members say their co-workers are "fun to be around," attesting to the company's laid-back-but-professional culture. A collaborative environment encourages innovation and empowerment, and the company promotes from within. Employees enjoy easy access to leadership, thanks to an open-door policy and an office design that houses executives among the rest of the team. Favorite perks include transportation reimbursement, a casual dress code, flexible schedules, and multiple annual parties.

#### **Native Roots Colorado**







**HQ:** DENVER FOUNDED: 2009 EMPLOYEES: 100+ JOB OPENINGS: 20+ **PAID EDUCATION: YES** 

WEB: NATIVEROOTSDISPENSARY.COM

In addition to health, dental, and vision insurance, the company provides long-term disability and \$10,000 life insurance and a confidential employee assistance program. Family-oriented, company-wide events, quarterly team-building activities, flexible working hours, discounts on retail merchandise, and a dogfriendly workplace are popular perks. Since 2017, the team has performed more than 1,300 hours of hands-on volunteer work and contributed more than \$100,000 to local organizations devoted to medical, youth abuse prevention, and hunger causes.

#### **Nectar Cannabis**



HQ: PORTLAND, ORE. **FOUNDED: 2013** EMPLOYEES: 100+ **JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: NECTARPDX.COM

As part of its mission "to create a new kind of industry culture," Nectar embraces diversity and promotes from within in addition to offering standard benefits plus a confidential employee assistance program, employee discounts, paid birthday time off, meritbased raises, financial support for continuing education and professional certifications, and flexible scheduling. The company encourages work/life balance with weekly team events including bowling and laser tag, in addition to holiday parties.

#### **NorCal Cannabis Company**



**HQ:** SAN FRANCISCO **FOUNDED: 2014** EMPLOYEES: 100+ JOB OPENINGS: 11-20 **PAID EDUCATION: YES** WEB: NORCALCANN.COM

NorCal offers standard benefits and extensive social-impact and corporate-responsibility programs. Cannabis for Good and Pass It Forward support homelessness reduction, environmental efforts, and job training programs. The company also provides grants to communities and individuals harmed by the war on drugs and offers a mentorship program for underrepresented groups. NorCal annually awards \$500 stipends to ten employees who may apply the funds to college or post-secondary education expenses.

















#### Papa & Barkley



HQ: EUREKA, CALIF.
FOUNDED: 2016
EMPLOYEES: 100+
JOB OPENINGS: 6-10
PAID EDUCATION: YES

WEB: PAPAANDBARKLEY.COM

In addition to health, dental, and vision care, P&B provides accidental death and dismemberment coverage and life insurance, a 401(k) program, corporate retreats, team-building outings, complimentary meals, gym membership, and tickets to conferences, tradeshows, and Cannabis Cups. One in six employees is on a management track thanks to mentorship and training programs. Teams engage in monthly volunteerism with food banks, museums, and programs that benefit farmers; the company sponsors more than 100 community events nationwide per month.

#### Platinum



HQ: SAN DIEGO
FOUNDED: 2014
EMPLOYEES: 51-100
JOB OPENINGS: 1-5
PAID EDUCATION: YES
WEB: HOUSEOFPLATINUM.COM

Father-and-son team George and Cody Sadler founded Platinum with the goal of supporting people on its team and in its communities. Staff receive equitable pay and standard benefits plus meals, retreats, and swag. The REACT social-equity program donates a portion of sales to employee-endorsed charities focused on issues including suicide prevention, veteran support, world hunger, animal rescue, breast cancer awareness, and pediatric medical care. The program highlights a different charity each month.







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#### **SC Labs**



HQ: SANTA CRUZ, CALIF. FOUNDED: 2010 **EMPLOYEES:** 51-100 **JOB OPENINGS: 1-5 PAID EDUCATION: NO** 

WEB: SCLABS.COM

Competitive pay and a collaborative environment that rewards employees' views and ideas are top-of-the-list for many at this company. Competitive salaries, 401(k) matching, paid health benefits and retirement plan, free snacks and drinks, company dinners and entertainment outings, ergonomic office furniture, topof-the-line computer equipment, flexible scheduling, monthly birthday celebrations, and company swag are among the perks and benefits employees tout. The company's primary cause is beach clean-up.

#### springbig



HQ: BOCA RATON, FLA. **FOUNDED: 2014** EMPLOYEES: 26-50 **JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: SPRINGBIG.COM

Among the extras here are unlimited paid time off; maternity, paternity, and family leave; 401(k) matching; weekly group activities like yoga, meditation, office Olympics, and trivia nights; rec-league sports; weekly group lunches; holiday parties with corporate gifts; work-from-home policy; very casual dress code; and an outdoor work area. Fifty percent of management is female, and the company promotes from within. The office is mostly paperless, and employees are encouraged to use public transportation.

#### **Treez**



HQ: OAKLAND, CALIF. **FOUNDED: 2015 EMPLOYEES: 26-50** JOB OPENINGS: 6-10 **PAID EDUCATION: YES** 

WEB: TREEZ.IO

With core principles of knowledge, education, innovation, and pragmatism, "Treez has a fun, open, and infectious company culture" offering competitive compensation packages plus unlimited vacation, equity, work-from-home hours, and team events like happy hours, company outings, and professional sporting events. Employees value the opportunity for upward mobility, and the company helps create opportunities for non-violent victims of the war on drugs by contributing to clemency projects.

#### Vangst





**FOUNDED:** 2016 **EMPLOYEES:** 51-100 JOB OPENINGS: 11-20 **PAID EDUCATION: YES** WEB: VANGST.COM

"At Vangst, we know we need to get sh\*t done, build upon our internal relationships, foster an inclusive environment, and always think bigger."The company puts that mantra into action with an onsite gym and sauna, monthly lunchand-learns, unlimited paid time off, a dog-friendly office, offsite team-building activities, and a casual dress code. Vangst partners with advocates, community-based organizations, and municipalities to address injustices of the war on drugs, support equal access, and create economic empowerment.





#### Würk



**HQ:** DENVER **FOUNDED: 2015** EMPLOYEES: 51-100 JOB OPENINGS: 11-20 **PAID EDUCATION: YES** WEB: ENJOYWURK.COM

"Würk looks for people who share ideas, collaborate, and present unique solutions." Health, dental, and vision insurance; parental leave; equity; sabbaticals; unlimited paid time off; cellphone reimbursement; and a dog-friendly workplace are top benefits cited by employees. The company's open environment fosters growth and creativity and makes it easy to connect with team members to collaborate on projects, support one another, celebrate successes, and share failures, they say.



#### **Vicente Sederberg LLP**



**HO:** DENVER FOUNDED: 2010 **EMPLOYEES:** 51-100 **JOB OPENINGS: 6-10 PAID EDUCATION: YES** 

**WEB:** VICENTESEDERBERG.COM

Competitive salaries and a benefits package including 100-percent employer-paid medical, dental, and vision insurance for employees and their dependents, plus life, shortterm and long-term disability for employees; a 401(k) plan with matching; generous paid time off; paid parental leave; fitness membership reimbursement; lunches and retreats; and a dog-friendly workplace are a few of the perks here. The firm contributes both time and money to social justice causes including drug policy reform and the rights of marginalized groups.

#### Vireo Health Inc.









**HQ:** MINNEAPOLIS **FOUNDED: 2014** EMPLOYEES: 100+ JOB OPENINGS: 11-20 **PAID EDUCATION: YES** WEB: VIREOHEALTH.COM

Publicly traded Vireo gives new employees three to four weeks paid time off immediately upon hiring. A flexible work-from-home policy; quarterly "all-hands meetings" comprising two days of strategic meetings, team-building, and events; a 401(k) program; and monthly innovation meetings during which employees pitch leadership their ideas for new products, services, and processes are favorite perks here. The company prioritizes gender and ethnic diversity, employs solar power at its cultivation facilities, composts all leftover plant matter, and enforces in-office recycling.

#### **Wana Brands**



HQ: BOULDER, COLO. **FOUNDED: 2010** EMPLOYEES: 51-100 **JOB OPENINGS: 1-5 PAID EDUCATION: YES** WEB: WANABRANDS.COM

Wana Brands' mission to "enhance life" guides its corporate culture, which places a premium on respect and camaraderie. The company provides tuition and continuing education reimbursement, up to sixteen hours of paid volunteer time annually, monthly social events, discounted YMCA memberships, and complimentary bus passes. Promotions from within and a robust bonus plan are favorite perks. A corporate social responsibility program in 2019 completed 500 volunteer hours working with organizations that address issues like food insecurity and domestic violence.

#### Yerba Buena



HQ: HILLSBORO, ORE. **FOUNDED: 2015 EMPLOYEES: 11-25 JOB OPENINGS: 1-5 PAID EDUCATION: YES WEB:** YERBABUENA.COM

Yerba Buena pays 100 percent of employees' health, vision, and dental insurance premiums, plus provides bereavement and maternity/paternity leave as well as bimonthly "wellness days." A robust training program, including outside educational opportunities, is available to all team members. The company takes an aggressive approach to sustainability, employing LEDs and drip systems throughout its facilities, collecting runoff, composting green and food waste, and recycling and upcycling. Volunteerism includes planting trees, adopting parks and highways, and Habitat for Humanity.

















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# Stephen Mueller's Big Idea

Mile High Labs' founder and chief executive officer turned a former Big Pharma manufacturing complex into one of the largest extraction facilities on the planet.



Colorado Governor Jared Polis, right, delivered a copy of his "Mile High Labs Day" proclamation to Stephen Mueller.

ore than a few iconic technology companies were launched in Silicon Valley garages by scrappy tech geeks with a vision and some science and engineering know-how. Apple, HP, and Google are only a few.

In the cannabis and hemp industries, entrepreneurs have launched makeshift operations in urban warehouses and rural farms over the past few decades, but as the industry matures companies increasingly rely on technology innovation and sound science to secure their future in a hypercompetitive and global market.

Stephen Mueller, a young engineer with a background in physics and electronics, is relatively new to the cannabis industry—specifically, the hemp side of the business. His journey began almost by accident in 2016 at a neighbor's backyard barbeque in Loveland, Colorado. That's where he smelled a dank and enticing odor wafting across the yard from a nearby greenhouse and started asking questions.

"Oh, this is going to be big," Mueller recalled thinking. When he started researching hemp, he quickly realized that, while thousands of farmers already were planting crops in states across the country, very few scientists were focused on how to extract and distill a burgeoning mountain of biomass into cannabidiol (CBD). "Nobody was smoking the flower, so all of it needed to be processed," he concluded.

Just a few years after his fortuitous brush with the plant, Mueller now finds himself at the helm of one of the largest CBD companies on the planet, Mile High Labs, which recently bought a 400,000-square-foot facility near Denver and dubbed it the "center of the CBD universe."

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#### **EXECUTIVE PROFILE**



Stephen Mueller, left, leads a tour of Mile High Labs' new 400,000-square-foot extraction facility.

#### **BACK TO BASICS**

Mile High Labs' new facility is located in Broomfield, Colorado, a mid-sized city lodged between Denver and Boulder. Most recently owned and operated by Sandoz, a division of Switzerland-based global health care company Novartis, the mammoth complex has been home to major pharmaceutical operations since the 1970s. Mile High purchased the site, along with its manufacturing equipment, for \$18.75 million earlier this year.

Sitting in his corner office, which is not as glamorous as it may sound, Mueller looked out the window and pointed to a building next door that formerly served as the headquarters for Novartis executives—the "ivory tower" of the pharmaceutical world, he said. Mueller scoffed at the idea of creating personnel divisions like this, and moreover sees benefits in putting C-level and lower-level employees in the same office area to promote interaction and collaboration.

"We have good people here, and everyone is excited to work here and is excited about the company and the industry," he said. "It's cool to see the reaction of people from pharma companies, where it's a totally different culture, and they love it. They've never felt this kind of energy."

Prior to founding Mile High, Mueller worked as a field applications engineer for Agilent Technologies and Teledyne LeCroy, traveling around the United States and testing electronics equipment, analyzing products ranging from iPhones to missileguidance systems. The experience gave him a broad perspective on product design and scale that came in handy when he set out to build his first extraction lab, which he did with \$250,000

contributed by family and friends. The operation became profitable within three months.

The quick first-stage success convinced some private investors to stake Mueller \$35 million in a Series A funding round. He was off and running.

"When I got in, I realized none of the obvious stuff was done already, so [I decided to] do that and do it really well," he said very matter-of-factly. "In the early days people would have some crazy idea, and I'd say, 'Just simplify it. Nobody is doing the basic version of this yet."

In an industry that's taken off like a rocket over the past few years—Brightfield Group estimates CBD sales will reach \$22 billion by 2022—it's perhaps fitting the chief executive officer for one of the biggest companies in the world is a young, downto-earth engineer who initially looked at the market as a science problem in need of engineering solutions.

And that's when he began sketching out plans for the "Mile High Monster."

"If this takes off like I think," Mueller recalled thinking, "there will be huge quantities of hemp, and none of the equipment out there can handle it. The CO2 machines were more expensive and complicated to build big, and butane is problematic to scale up, so alcohol was a good fit. But there weren't any large-scale operations at the time, so that's what we set out to build."

Just a few years ago, he explained, there weren't many hemp extraction facilities in the U.S. and most were small-scale operations designed for the medical cannabis industry's different priorities and end-products. Initially, Mueller planned to build a pilot plant that used a miniature, scaled-down version of industrial



#### **EXECUTIVE PROFILE**

equipment and prove the Mile High process worked before building a heavy-duty version. "If you try to build a big one right off the bat, you can make some really expensive mistakes," he said. "And we've seen people do that."

Mueller wasn't keen on making mistakes, but he also knew the window was closing fast in an industry attracting more and more well-funded operations, along with more scientists and engineers like himself.

#### **'THE MILE HIGH MONSTER'**

The Mile High Monster arguably was the first industrial-scale hemp extraction machine that could be installed directly on a farm. It's able to process about fifty acres of hemp daily into fullspectrum oil, the baseline ingredient from which CBD products are made. One of the machines currently operates in Eastern Colorado; another has yet to be deployed.

Extracted oils are sent to the company's Loveland and Broomfield facilities, where some of the material is distilled and crystallized into isolate. While CBD isolate has been the foundation of Mile High's business thus far, the company has expanded its production capabilities and now produces watersoluble distillates, THC-free distillates, and water-soluble isolates.

"As ingredients get commoditized and get more differentiated and quality becomes an important aspect, [expansion production has] been our strategy," Mueller said. "I'm excited to have this building now and have it come to life, and we're starting to see big companies signing contracts through private-label production for finished products. The transformation from just the engineering extraction business to the finished products, all the way from the plant to the shelf."

In 2019, Mueller identified another critical problem causing headaches for operators large and small: locking down a steady supply of high-grade biomass. In order to address the supply problem and lay groundwork for the industrial-scale extraction operation he envisioned, Mile High secured a loan for \$65 million from MGG Capital in New York in one of the largest non-dilutive capital raises in the sector to date. The deal was a game-changer for the company and the industry as a whole. Mile High Labs used the cash infusion to buy several million pounds of high-quality hemp, in what Mueller called "the largest cannabis purchase in the history of the world."

In October, Mile High Labs estimated it supplies about 25 percent of the wholesale CBD market in the U.S., with hundreds of different brands incorporating its isolate. The new facility will allow the company to ramp up its wholesale extract production and produce a wider variety of private-label products including tinctures, capsules, tablets, topicals, and gummies.

#### **BUILDING A CORPORATE CULTURE**

Mueller's deep knowledge of science and engineering has been a fundamental part of his success thus far, enabling him to design customized machines for extraction and purification and troubleshoot problems along the way. But as CEO of a

company with 230 employees worldwide, he's beginning to realize prioritizing and delegating tasks is now the name of the game. "I've been reading tons of books on performance management lately, and my goal is to make sure we have the best people in the right positions and we have the structure and processes in place where good decisions get made," he said.

Fortunately for Mueller and Mile High, there is no shortage of talented scientists and engineers in the Denver area, and some of them already know their way around the new facility. Mile High hired a number of employees from the Novartis operation and expects to add about 100 more employees at the Broomfield facility by the end of 2019.

"It's gotten a lot easier to get good people—top-notch engineers who are super conservative guys," Mueller said. One of his most prized hires is Brad Stone, a chemical engineer who spent sixteen years at nearby Boulder Scientific. Now, Stone is Mile High Labs' vice president of engineering.

"I'm not a chemical engineer, but I can learn this stuff because it's similar to physics," Mueller said. "But then I would have these really difficult problems and was up late at night trying to solve them and thinking Brad Stone!" He laughed and shook his fist in the air. "I knew I had to hire this guy [Stone], and it took me six months to do it. Good engineers are not motivated by money but by interesting work."

Mueller explained the development of new technology in the industry—whether it's solvent-free extraction or a new technique for purifying chemical compounds—is driven by market demand and new products. As new regulations and market forces come into play, manufacturing processes will come under increasing scrutiny and consumers will develop stronger opinions about how products are sourced and produced.

"It's a weird situation, because [CBD is] a natural product and that's why people like it," he said. "So, they want this natural product, but they also want it extracted, and that's a chemical process to do that. And then they want the THC taken out. So now you're getting into some physical chemistry purification, but people don't want that. So, you end up with a paradox."

While Mile High Labs bills itself as the "center of the CBD universe," it may have to modify that moniker to "cannabinoid universe" going forward. As CBG, CBN, THCV, and other nonpsychotropic cannabinoids are recognized for their medical and therapeutic benefits, Mile High and other extraction companies surely will add these compounds to their business operations to meet market demand.

"We are really excited about all these other cannabinoids, and CBG is super exciting," said Mueller. "It's going to take a long time before we have good scientific data about the medical benefits. You have THC as most psychoactive and CBD as the least, but they're all psychoactive. So, these other cannabinoids fall somewhere in the middle, and some of them will get you high a little bit, which will make it interesting as this industry develops. The [2018] Farm Bill made it so simple, but it will turn out to be a



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#### **EXECUTIVE PROFILE**

lot more complicated than we thought in terms of how to classify all these compounds."

#### **AHEAD OF THE REGULATORY CURVE**

One of the biggest clouds looming over CBD in 2019 is the regulations and oversight due in 2020. Agencies including the Food and Drug Administration and U.S. Department of Agriculture are preparing to weigh in on everything from hemp production standards to new rules for dietary supplements.

Mueller believes when the FDA weighs in on manufacturing standards, many extraction facilities will have a hard time meeting the minimum requirements. The environment will favor large, wellfunded facilities like Mile High, which has the expertise, personnel, and equipment to implement good manufacturing practices (GMP) at a very high level. Mueller said the company already has high standards for quality assurance (QA) that mimic those found at pharmaceutical and biotech companies.

"[CBD] is a dietary supplement, and there are rules for this stuff," he said. "The companies need to understand how this works, but a lot of companies don't have that experience. The FDA guidelines are generic, so it's up to you to interpret those and apply them to your process and product."

At the Broomfield facility's grand opening in October, Director of Compliance and Regulation Wendi Young explained the company is pursuing International Organization for Standardization (ISO) certifications and will become one of very few labs in the country with that level of QA, standardization, and consistency. Young previously served as senior director of quality control at Tolmar Inc., a pharmaceutical company based in Fort Collins, Colorado. She spent the past seventeen years interpreting FDA regulations and participated in more than twenty audits by various regulatory agencies.

"I was talking to a guy who runs a synthetic cannabinoid company that sells to pharmaceutical companies, and their specs on CBD are way looser than ours," said Mueller. "Our customers are holding us to standards that are higher, and our residual solvent limits are a tenth of theirs, our purity levels are way higher, our THC level spec is lower. It's really interesting."

Mueller testified at an FDA hearing earlier this year and predicts federal regulations will set dosage thresholds such that products containing more than a certain number of milligrams will be labeled "pharmaceuticals." Products with cannabinoid content below the threshold will be classified food products. "I don't think they will open the can of worms about full-spectrum oil or isolate, because if you go into that they are more likely to allow only isolate."

He said one of the problems from a regulatory standpoint is very little is documented or understood about cannabinoids beyond CBD and THC.

"From a regulatory standpoint, the [CBD] isolate is easier for them to deal with, and they are getting pressure to do something with CBD so they will set those limits," he said. "And then when the flood of CBG hits the market this year, it will throw a wrench into the process."

#### **EYES ON THE PRIZE**

When he looks at markets across the U.S., Mueller sees different specialties and skillsets in each region. In Oregon, for instance, he talks about the heritage of the cannabis industry in Southern Oregon, just north of California's storied Emerald Triangle, where smaller farms in remote areas are developing high-quality plants with superior potency and genetics. In Kentucky and other southern states, on the other hand, he sees the legacy of big agriculture and industrial-sized farms that grow lower-potency, lower-quality hemp but on a larger scale.

Colorado occupies a unique place, emphasizing the manufacturing side of the industry because of the prevalence of high-tech and pharmaceutical companies and people with expertise in engineering, QA, and operations.

"It's hard to recruit someone from a pharma company if you're in Kentucky because there aren't many out there," Mueller said. "You see a big difference in the focuses of the companies and the culture of the companies and the industries in the different states."

In many ways, he expects hemp and CBD to mimic what has happened in the marijuana industry over the past five to ten years: As margins on raw products shrank, companies differentiated themselves by the quality and uniqueness of their products as well as marketing and branding.

"You certainly saw a lot of exuberance early on and then a green rush, with a lot of money pouring in, and then stuff got overbuilt," Mueller said. "You position the company so that when the excitement dies down and becomes more realistic, [the company] will survive. For us, focusing on quality and driving scale will be our differentiation."

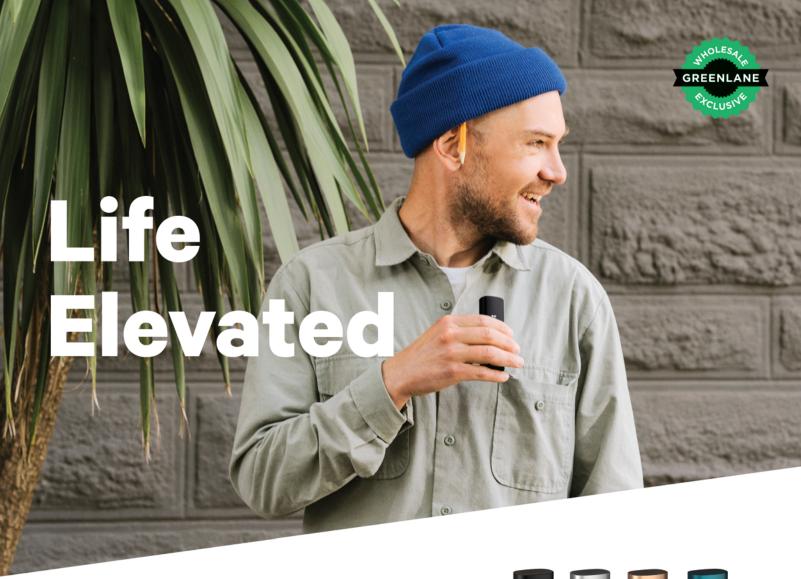
Mueller explained Mile High isn't planning to build its own brands, but instead is focused on producing ingredients along with private-label and white-label products. By next year, he wants to have the core business divided between private-label and ingredients—mainly CBD isolate, but also THC-free oil and CBG.

"Part of what is helping us be successful here is focus," he said. "There are so many opportunities in the cannabis industry. Every time we hire someone from outside the industry, they have this twomonth freak-out frenzy and they want to do everything. We have to say, 'Okay, calm down. This is what we want to be focused on."

His advice to people and companies considering the market? "If you missed the scale, there are a lot of other opportunities," he said. "Find a niche and be differentiated somehow... Have a product focused on the plant, the terroir, the whole story."

As for Mile High Labs, Mueller's vision moving forward is to become a one-stop shop for entrepreneurs who want to build quality brands.

"A lot of companies making CBD products are trying to put it all together and buying CBD from us and different co-packers and managing all of these different components," he said. "And that's what we're trying to do here. So just come to one place and work with us on what you want, and we'll do all that for you and deliver the product."





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# PRINTING & PACKAGING

## INSIDE

#### **ADVICE** page 70

Kary Radestock says now is the time to begin planning for the holiday season—the 4th of July holiday season.

#### **DESIGN** page 72

Innovations in texture, size, graphic elements, and sustainability are raising the bar for cannabis packaging.

#### **INSIGHT** page 84

Retailers offer perspective about packaging that sells products.







## Happy 4th of July!

A slightly out of season greeting.

BY KARY RADESTOCK

I HAVE TO ADMIT IT: Underneath my hip Southern California urban-chic exterior, I am a sucker for the holidays. I love fireworks on Independence Day, turkey dinner on Thanksgiving, and decorating a Christmas tree that I keep up way too long into the New Year.

With the holidays upon us, I think now is a great time to remind everyone it takes time to plan a holiday promotion.

In the retail world, they call the off-season practice of planning special winter holiday promotions "Christmas in July," which means you need to start readying deals and promotional materials during the heat of the summer. The basic premise is to allow four to six months to create new packaging, advertising, and collateral materials.

There is a tremendous upside to planning ahead. Not only will you have the luxury of time to get everything just right, but you also can lessen the worry and reduce the expense that comes with last-minute production.

So, what should you start planning in the middle of December? How about 4th of July campaigns?

Independence Day is a huge selling opportunity for cannabis companies. According to the National Retail Federation, 86 percent of Americans celebrate Independence Day, spending \$7.1 billion during the holiday. In fact, more than \$1.6 billion is spent on beer and wine alone!

Cookout-related items compose the majority of spending (65 percent). What goes better with a cookout than cannabis?

Whether you are offering a Patriotic Pre-roll, some Independence Extract, or a Victory Vape, you'll want to start planning your custom packaging now so you can be ready later when your customers want some high-spirited goods. Then, as you roll out your sizzling summer specials in July, you can start thinking about your winter holiday promotions.

As you can imagine, the winter holidays are huge. In fact, Americans spent nearly \$721 billion during the 2018 holiday season. With a little pre-planning, you can get your slice of that delicious pie.

Try thinking about your business in counter-seasonal cycles. In winter, start planning for the summer. In fall, focus on 420 celebrations. And get the wheels moving for Valentine's Day on Labor Day.

With a bit of advance planning, you can outshine and outsell your competition.

It might be counter-intuitive to be thinking about July in December, but in terms of marketing and packaging, Independence Day is right around the corner. Start planning your patriotic packaging now, and your 4th of July sales will light up like fireworks.

#### SAMPLE PRODUCTION SCHEDULE

IN THE BEGINNING

Creative process (design and development): three to four weeks.

Structural design (may work concurrently): two to three weeks.

Compliance check: one week.

**Proofing process:** one to two weeks.

PRINTING AND SHIPPING

Folding carton, domestic (depending on complexity): two to four weeks.

Flexible packaging, domestic: four to five weeks.

Folding carton, international: three to six weeks.\*

Flexible packaging, international: six to eight weeks.\*

Direct print jars and containers follow similar international timelines: Stock jars and bags with labels are the most common and cost-efficient items to market, but even those take a little time.

Labels: two to three weeks.

\*Overseas packaging must ship via ocean freight for best costs and adds four weeks to the schedule. Airfreight, which requires only seven to ten days, is available in most cases, but it's expensive.









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# DESIGNING Outside The Box

BY ROB HILL

WHILE every aspect of the cannabis industry has undergone major changes in the past five years, none have been more radical than those in retail packaging. Although some brands dedicated significant resources to their products' shelf presence from the beginning, many others just now are beginning to realize the importance of presenting a solid brand identity in stores and consumers' hands. The resulting change in the landscape is nothing short of extraordinary.

Among the most noticeable shifts has been movement away from shades of green, marijuana leaf iconography, and Rastafarian motifs. Bloom Farms was in the vanguard, presenting its boxed pre-rolls in classic foil with gently debossed type for a subtle touch of elegance. "Bloom Farms was one of the first brands to understand that in order for the industry as a whole to be legitimatized and taken seriously, outdated stereotypes needed to be shed in order to attract new and casual-use consumers," said Michael Hester, founding principal and creative director for Pavement, a San Francisco-based design and packaging studio.

Other brands took notice. Companies began playing with size, shape, tactile experience, colors, and materials found in high-end mainstream retail packaging. Today, brands are spending big to hire heralded packaging and design firms and world-class consultants. They source materials from vintage tin companies and lavish paper mills. "As the cannabis and CBD markets have grown, Neenah has seen the demand for premium packaging evolve as well," said Michelle Turner, brand manager for Wisconsin- and Georgia-based Neenah, a 100-year-old leader in the creation and manufacturing of papers for premium packaging and label applications. "Cannabis products are quickly becoming more mainstream, and experience shows high-end, luxury brands want to showcase their products with high-end packaging."

Another major change? Chic yet sustainable packaging is *en vogue*—and in demand. "The increasing focus on sustainable packaging is great to see," said Jesse Dixon, director of strategic sales at package engineering and manufacturing company GPA Global. "The seemingly collective goal to move packaging to be as earthfriendly as the product seems to be received well by consumers and industry professionals alike." James Eichner, who co-founded Sana Packaging, said satisfying the demand for renewable and regenerative materials can be challenging. "Our core focus has always been on

circular and sustainable cannabis packaging solutions, and we've seen a huge increase in demand lately," he said. "It's gotten to the point where we're generating fifty-plus leads per week." Sana develops containers not only from hemp and other plant fibers, but also from reclaimed ocean plastic.

Neenah's Turner said her company keeps 30-percent to 100-percent post-consumer-waste options in stock to meet the demand from cannabis customers. The company also developed the first bright-white premium hemp fiber folding carton papers.

Other innovations like Hush-Kush's Perma-B, a process consisting of coating the inner surface of pouches with a completely biodegradable beeswax-based natural compound, are gaining popularity too. Simple, efficient, smell-resistant, waterproof, size-customizable, and lightweight, the Hush-Kush pouch is the only product using the technology. "My partner and I have seen companies using a similar technology in the food industry," said Hush-Kush co-founder Héloïse Fortier. "Learning about all the other great properties of beeswax, we had the idea to create a pouch for environmentally conscious cannabis brands who were looking for a fun, practical, and affordable carrying accessory that is customizable, able to carry five pre-rolls, and fits perfectly in a jeans pocket."

That cannabis packaging has taken on mature sophistication is no small feat considering the obstacles and stumbling blocks that stand in the way. Regulations vary by state and are subject to spur-of-the-moment revision in some jurisdictions. Among them are rules about font and iconography sizes and colors, warnings, and required "out-front" information. The challenges can be frustrating, but they also create an environment ripe for creativity. "We're starting to see some more thoughtful packaging," said Courtney Zalewski, founder of creative agency Studio Good. "More and more brands are going the extra mile with details and printing techniques."

Freelance retail packaging creative Gordana Perić indicated the industry's metamorphosis is far from complete. "I am impressed with the progress and how quickly it got to the point of having so many beautifully packaged products," she said. "At this pace, I have no doubt we will be seeing even more impressive packaging in the near future with more illustrative and typographic designs."

Here are a few packaging designs we found noteworthy this year.

### Skunk Factory

Creative agency Noise 13 built a package system that showcases Skunk Factory's street-savvy and unapologetic attitude. The base packaging employs sleek, uncoated black paper stock with white and metallicsilver ink. By spending extra money on colored paper, Noise 13's design team cut down the number of ink colors and ensured solid black on all folded corners.

"For the flavor indicator, we were inspired by the street and yellow caution tape," said Dava Guthmiller, founder and chief creative director at San Francisco-based Noise 13. "By repeating stripes and text-mimicking street signs and streetwear fashions-and incorporating pops of bright color with a glossy sticker, we were able to punch up the look and feel of the brand."

SkunkFactory.com





### Henry's Original

Henry's founders take pride in being real farmers—the kind who can spot what a plant needs from 100 feet away. The Henry's team applied the same attention to detail in its efforts to create packaging that reflects an utter lack of pretention. Containers evoke comparisons to vintage apothecary labels—fitting for a company that offers heirloom craft cannabis. "The custom box is made with natural papers flecked with fine gold foil details that forge an understated sophistication," said Pavement's Hester, who created Henry's shelf look.

HenrysOriginal.com

### 1906

1906 is named for the year the Pure Food and Drug Act passed, kicking off what would become the era of cannabis prohibition. To capture the brand's lively, punchy spirit, 1906 hired Studio Good to remodel its original packaging. The creative agency saturated handsome boxes and tins with Skittles-like colors—canary yellow, rosy pink, lagoon teal, lavender purple, tangerine orange—to enhance the playful side of the brand's image.

1906NewHighs.com





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### **Lucky Box Club**

Lucky Box Club is a CBD subscription service providing monthly boxes of highend, "mystery" products to members in California. With an existing brand identity in place, Lucky Box Club hired San Francisco's Pavement branding and design studio to create a container as discreet as it is premium. Luxurious paper and gold foil complement the hexagon hat box style structure to create a delivery experience that feels fanciful and covetable-brand values key to LBC's business model.

LuckyBoxClub.com

### **Famous Farms**

Born and raised in Hollywood, California, Famous Farms' packaging would feel right at home on the beauty counter at Nordstrom's or Barney's. When, at age 10, the brand's identity needed a refresh, the company called on Studio Good. The mod and bespoke matte black paper wrap with raised gold foil and die-cut lettering evokes both modernism and stardust nostalgia. The jar's lid, which could pass as a ritzy eye serum jar the size of a petite hockey puck, sits perched atop the center of an open-sided box. The voguish gold stacked logo framed in a square is straight out of a Tom Ford design and screams extravagance and opulence.

FamousFarms.com





### **Canna Bath**

Canna Bath's original packaging proved too pedestrian to serve the goal of appearing on shelves in high-end stores. So, the company turned to Hippo Premium Packaging to redesign its entire look. Now, petite, eyecatching boxes and glossy bags pop with softly fluorescent greens, yellows, blues, and purples. According to Hippo founder Kary Radestock, re-packaging resulted in the brand landing shelf space in leading retailers. "Within a short time, Canna Bath's sales doubled," she said.

CannaBathCo.com

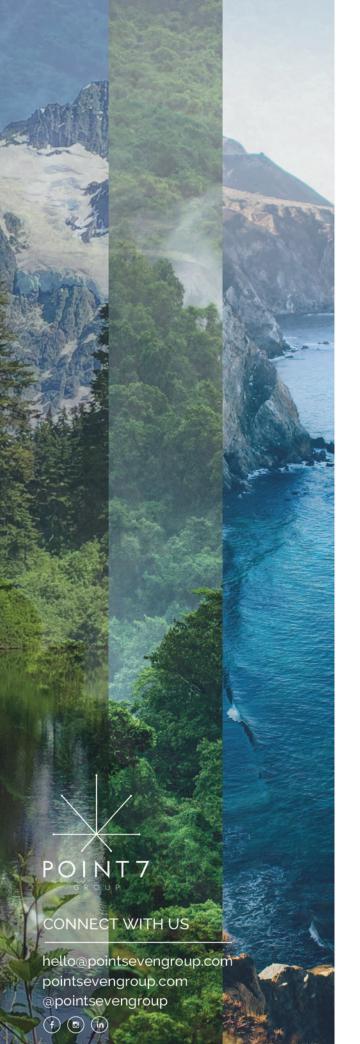




### Doug's Varin

Doug's Varin is a unique product—the first-ever THCV vape pen-and the packaging had to reflect that. The oceanblue, telescoping rigid box with a hot-gloss soft gold foil, in combination with a display system outfitted in cooling azure blue with a soft matte gold foil liner, is at once elegant, distinctive, and dashing.

California Cannabinoids.com



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grows and the
mountain of plastic
packaging, legal
weed is not as green
as you would think."

- Rolling Stone<sup>1</sup>

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### Zoma

Zoma radiates luxury with a dark, mysterious edge—perhaps not surprising, since the brand's owner is a professional magician. Sacred geometries and other arcana play into the packaging's look. Pavement created layers of contrasting textures with embossed elements, gold foil, Classic Crest Epic Black paper from Neenah, and whimsical perforations conjuring turn-of-the-century vintage stamps. An overall sense of balance, sophistication, and enigma give the packaging a bewitching and fetching feel. "We used a blind emboss illustration of Mother Earth paired with gold foil flourishes so it feels opulent and indulgent, yet grounded and calming," said Hester.

ZomaCannabis.com



### Woah Candy Co.

Woah's founders wanted the company's packaging to tell the story of a family of artisan confectioners. "The design harkens back to vintage confectionery packaging with an intricate and playful gold-foiled logo as the centerpiece," said Pavement's Hester, who headed up the project. The resulting look feels worldly, elevating the brand above the crowded edibles marketplace.

Woah Candy Co.com

### **Golden State Greens**

Golden State Greens, an upscale dispensary in San Diego, wanted statement boxes to contain its most exclusive flower and prerolls. Hippo Premium Packaging met the challenge with a charming mandala-inspired, soft touch box with a magnetic closure. The design employs matte copper foil and spot UV coating with an authentic red-leaf wax seal to add a touch of old-world panache. Golden State Greens.com





#### **Narvona**

Narvona aspires to be both luxurious and approachable. Wick & Mortar began with a minimalist style incorporating marble, custom glass jars, and thick, matte packaging with debossed metallic foil printing. The containers combine visual and tactile appeal. "Opening any container of flower is a unique experience, but we opted to create glass jars with a snow globe effect, so rather than seeing the lid you instead see their impeccable flower first," said Wick & Mortar founder and Chief Executive Officer Jared Mirsky.

Narvona.com

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### **Humboldt Patient Resource Center**

HPRC already had a beautiful design concept and logo for its award-winning product line but needed updated packaging. "We showed how the addition of soft-touch lamination and spot UV coating would showcase the quality of their brand and bring out the best in their design," said Hippo's Radestock. The earth tones and tangled tree branches that appear on the roof of the box when opened illustrate Hippo's signature "interior-exterior" design approach. HPRCHumboldt.com

### **WYLD**

WYLD's gem-shaped containers are fresh and free-spirited, seemingly imbued with the wildness and nonconformity the company holds at the heart of its brand. The packages' contours conjure the impression of a rare mineral or wild berry, and the logo works seamlessly with the design—a keen juxtaposition of soft organic images combined with rigid geometric edges. "The origami box is fun and inviting. It's a little like opening up a present," said Vice President of Business Development Tyler Elson. "The experience of the packaging and effects are something we want people to always think about and come back to." WyldCanna.com





### ZoZ

ZoZ had been an established brand for more than a decade when Wick & Mortar redesigned the look, marrying metals with wisps of color to resemble smoke. Sustainability is at the core of the company's ethos, so the etched glass jars are fully recyclable, including the tops. "Customers can return the jar to the retailer and ZoZ will reuse the jars for future product drops," said co-founder Natali Schutz.

ZoZCannahis.com



### Cabana

Cabana, a pre-roll product from the LTRMN brand house, draws its inspiration from the world of premium cigars. The line's full-gram pre-rolls are packaged in individual, resealable metal tubes lined in Spanish cedar for freshness and humidity control. The tubes are available to shops in batches of thirty, set into custom Cerulean cigar boxes that function as wholesale shippers and display cases. "The goal is to give the consumer a taste of a premium experience on par with all the other aspirational facets of their life," said LTRMN Creative Director Jarren Simmons. "Cabana is the luxury you can taste and feel without being pretentious or snobby."

LTRMN.com/cabana

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### Lowell Herb Co.

"We're mindful and take pride in the details of our packaging, but how the products function is key," said Lowell Herb Co. co-founder and Vice President of Product and Design Courtney Zalewski. "Beyond looks, we set out to create an experience that was as convenient as possible for our consumers." To that end, the boxes in which flower is packed unfold to function as rolling trays for grinding and rolling smokes in an easy-to-use, contained area. Matches and a strike surface also are part of the package. Packaging for one-gram single pre-rolls includes a mini-envelope with two matches and a strike surface.

LowellFarms.com



### Old Pal

Old Pal's vintage-looking tobacco pouch format for both flower and vapes gives the brand a familiarity and unpretentious appeal. The packaging, designed by Austin, Texasbased LAND design studio and creative consultancy, is "supposed to pay homage to older times when you didn't buy weed from a dispensary, but from a friend who showed up at your house with a half pound of weed," Old Pal co-founder Rusty Wilenkin said. "It's definitely a throwback brand. We are playing hard on the vintage, old-time feel." OldPal.com

#### **Wana Brands**

Previously wrapped in multiple layers of plastic and packaging, Wana Brands unveiled a more sustainable container design for its artisan edibles this year. The new container reduces the product's footprint by 60 percent, while a new tamper-evident shrink band adds another level of security.

According to Chief Executive Officer Nancy Whiteman, the new packaging, designed by Calyx Containers, has upped the brand's shelf appeal. "It is innovative and more sustainable, furthering Wana's brand narrative," she said.

WanaBrands.com





### **Leef Organics**

Leef's CBD-infused soaps are packaged in a half sleeve that accentuates the handcrafted shapes and is "plant-able." According to cofounder Emily Heitman, consumers discover, post-purchase, "a better way to recycle, plant, water, grow, and sprout non-GMO, organic tomatoes by planting the sleeve."

Heitman said the company's "farm to lifestyle story" demanded a neutral color palette of bone and black mixed with smoky, soil-like amber and rich browns to impart a hand-selected, natal feel.

LeefOrganics.com

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# Photo: Mike Rosat

## PACKAGING That Sells

Boxes, bags, cartons, jars, and other containers do much more than protect products during transportation.

BY DANIEL REED

**CANNABIS** packaging performs more functions than corresponding collateral in many other consumer packaged goods sectors. Because of a nearly complete absence of traditional advertising and promotional platforms, every product's external trappings must serve as a billboard, of sorts, to bolster brand recognition in an ever-more-crowded market. Packaging also must communicate a veritable landslide of information, including dosages, testing certifications, track-andtrace tags, and other information mandated by state regulations. In addition, containers must preserve product quality and be child safe.

Last, but by no means least: Packaging is a sales tool. As such, it must resonate with consumers. But what does that mean, exactly?

"The vast majority of shoppers in cannabis stores right now are new customers who are impressionable

with very few formed opinions about existing brands," said Adrienne Mulligan, supply chain director at Harborside dispensary in Oakland, California. "Packaging is the main vehicle companies can use to communicate with those consumers.

"Our store data shows items with thoughtful packaging have higher rates of engagement and sales," she added. "As a result, an increasing number of brands are trying to reach out to consumers directly through branding and thoughtful packaging."

Mulligan said although elaborate packaging seems to be on trend right now, well-executed simple concepts still have appeal. "The main element of packaging I've seen increase sales lately is color," she said. "For a long time, most cannabis brands used very sterile packaging for the medical market. But when brands reinvent themselves with new packaging that has personality



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and color, we definitely see those brands perform better compared to products with uninspiring packaging."

The biggest challenge for some manufacturers, she said, is fitting all the legally mandated verbiage on packages without destroying an otherwise charming design. Customers are eager to find potency, dosage, and other information, so incorporating the information in the design benefits everyone: consumers, manufacturers, and retailers. "Harborside's in-house brand, KEY, clearly marks dosage and ingredients on the front of each edibles package while offering vibrant descriptions of each baked treat or confection," she said.

Mulligan also warned brands should be aware of the "grab-and-go" trend while designing packaging. Many consumers want to purchase their selections and be on their way as quickly as possible, especially in recreational markets. Quality products in bland packages used to be able to rely on budtender recommendations, but that's no longer true. Brands have an average of three seconds to catch and hold a consumer's attention.

Mike Lempert, logistics director at Colorado's Seed & Smith, said effective packaging starts with product preservation, which is the most significant way to preserve profits. "If cannabis sits too long, the product is essentially spoiled and could turn a loyal consumer into a harsh critic," he said. Childproofing, too, can cause customer dissatisfaction. "While there is a need for child-resistant packaging, there is no need for it to create frustration for the end consumer to access the product," he said.

For him, quality packaging strikes a balance between functionality and visual engagement. "The end user should both notice and not notice the packaging," he said. "It should be eye-catching enough to be intriguing without being too cliché or expanding on the stigmas

that are already present with cannabis consumption."

He also encouraged brands to carefully consider their packaging's environmental impact. Sustainability and earth-friendliness were not considerations when megabrands like Coca-Cola and Nestle rose to prominence and solidified their images in popular culture, but now they present significant challenges—and opportunities for cannabis brands. "The move toward a smaller environmental footprint is an important piece of the puzzle for us," Lempert said. "We have recently moved to 100-percent recyclable tins for some of our products and are sourcing more sustainable packaging for the entire Seed & Smith suite of products."

Lempert hopes to see the entire industry embrace sustainable packaging sooner rather than later, but he said regulators will have to work with manufacturers to encourage competition in the packaging space. "In the future, we hope larger packaging manufacturers are legally allowed to put forth a larger interest in cannabis packaging, not only to meet eco-friendly standards, but to improve functionality, as well."

At Harmony Dispensary in Secaucus, New Jersey, best-selling products fall everywhere along the packaging spectrum, from simple to ornate. According to Chief Executive Officer Shaya Brodchandel, flashy packaging alone won't sell a product. "At the end of the day, the only thing a consumer is left with is the product and packaging, so it's important to create a connection and story between the product and the packaging that the consumer can relate to," she said.

While differentiation is important, some brands overthink it, she added. Harmoniously integrating brand messaging with preservation, child-resistance, and other mandated elements does not have to mean excess. "Nowadays, most consumers are intrigued by sleek packaging; there really is no interest in bulkiness,"



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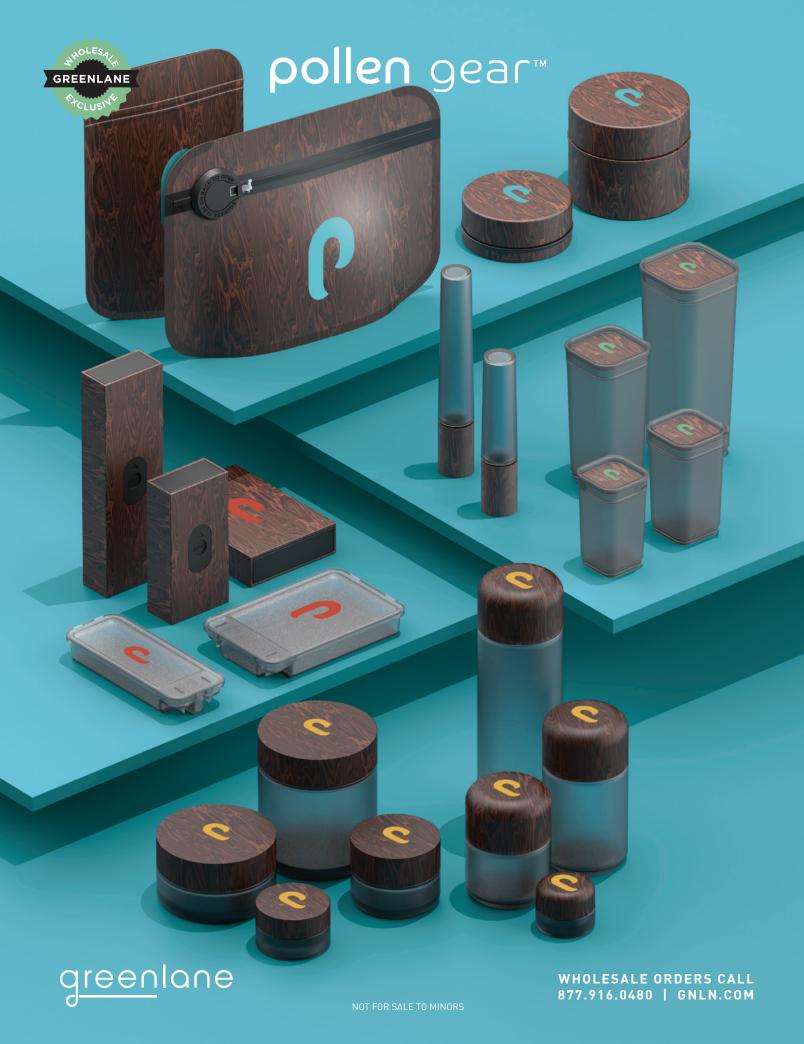
Harmony Dispensary collaborated with local artist David Andre, who created engaging graphics based on strain names and characteristics.

she said. "So, we offer packaging made with mylar bags, which protect the product while also maintaining the convenience and aesthetic aspect of sleekness."

To add "local color" to its packaging—and strengthen ties with the community—Harmony collaborated with local artist David Andre, who created engaging graphics based on strain names and characteristics. "Customers should have a sense of trust, relief, and anticipation when they encounter a product," Brodchandel said, and Andre's work evokes those responses. The vibrant artwork, rather than quirky strain names, delivers a powerful sales pitch. "Our product packaging is hugely popular with patients because it makes it easier to recognize and repurchase their preferred strains," Brodchandel said. "Patients come to the dispensary describing the product artwork instead of the strain name."

Melissa Roberts founded and owns Stone Coast, a group of dispensaries in Brunswick, Maine. She, too, understands the impact engaging packaging can have on consumer behavior and sales. Roberts operates in a state where recreational use remains new and novel. The market's youth provides a chance for new and innovative brands to etch their names into the minds of consumers. Roberts said she is noticing quite a few creative minds taking advantage of this opportunity. "Among our emerging Maine cannabis companies, we have some brands taking a strong lead in terms of the visual impact of well-designed packaging," she said.

Like most other dispensary owners and managers, Roberts keeps an eye on how packaging affects consumer engagement, sales, and revenue. Although eco-friendly materials have not become as big of an issue in Maine as in older markets out west, she can see that day coming. Like Lempert, she hopes lawmakers will work with the industry to balance an eco-conscious approach with regulatory compliance. "In the cannabis industry, we are contending with the problem of overpackaging waste due to regulations designed to prevent inappropriate or accidental consumption by children," Roberts said, adding she had identified several ways to minimize waste in packaging and other areas. "We use HISIERRA child-proof exit bags, which are made with sustainable and renewable plant-based raw materials in a wind-powered, [Leadership in Energy and Environmental Design]-certified facility to mitigate the harm the overpackaging problem is causing to our environment."



## A Year in Review: The Evolving **Cannabis Industry**

2019 WAS AN EVENTFUL YEAR FOR CANNABIS. With states tackling new legalization efforts, developing already existing industries, and adjusting to federal hemp legalization, the cannabis industry has continued to evolve and establish itself throughout the

Here are some of the biggest developments we saw this year.

#### THE STATE OF HEMP

One of the biggest cannabis-related stories this year was the end of hemp prohibition. For many years, hemp existed in a legal gray area that wracked its producers and consumers with uncertainty over what could be done—and what couldn't. The 2014 Farm Bill allowed limited production, predominantly for research purposes. That proved to be marginally beneficial for the farming community in some states, but not others.

The 2018 Farm Bill, signed at the end of 2018, allowed for much more expansive programs and effectively legalized the crop, allowing each state to determine whether hemp may be produced and sold within its borders. So far, every state except Mississippi and Idaho have passed laws to create hemp programs.

The 2018 Farm Bill does not allow for production of hemp until states submit a "State Plan" to the United States Department of Agriculture. The USDA stated it will not review state plans until the department promulgates regulations, which should occur before year-end 2019. The demand for hemp has built to a point where the crop has become the new kale. With fewer restrictions on hemp than cannabis, some legal cultivators hopped aboard the hemp train into the new future. The fate of this new industry will be played out next year, but the seeds of its success were planted in 2019.

#### **ILLINOIS' REC-USE LEADERSHIP**

In June 2019, Illinois became the eleventh state to legalize recreational cannabis and the first to do so through legislative action. Kudos to the state for building a social equity program into the recreational licensing structure.

Illinois has yet to promulgate regulations, but many local jurisdictions have begun discussing pathways to approval for recreational licenses. The state-license application period begins December 10, 2019, and the deadline is January 20, 2020. Applications for facility types other than recreational retail will be released early in January 2020.

Sales of recreational cannabis are set to begin January 1, 2020.

#### MICHIGAN RECREATIONAL EXPANSION

Michigan legalized recreational cannabis in November 2018. In July 2019, the state's newly formed Marijuana Regulatory Agency released emergency regulations for the recreational industry. Michigan also implemented a social equity program.

Rec application forms became available October 3, 2019; the state began accepting applications November 1.

### **COLORADO DELIVERY, SOCIAL CONSUMPTION**

Although Colorado was the first state to allow operation of a regulated recreational cannabis industry, the state has not significantly updated its laws since that momentous day. By comparison, California has added license categories including events, delivery services, and social consumption.

In 2019, Colorado expanded its industry by passing bills that authorize delivery services and social consumption in places called "marijuana hospitality establishments." The hospitality establishments are expected to begin operating in 2020. Delivery permitting for medical marijuana centers will begin January 2, 2020; medical marijuana delivery permitting for transporters and all retail operations will begin January 2, 2021.

### **MISSOURI DELUGED WITH LICENSE APPLICATIONS**

Although an unlikely candidate for legalization, Missouri approved medical marijuana in November 2018. The state's application period, which closed August 19, 2019, drew more than 2,163 applications. According to the Department of Health and Senior Services, 1,163 of them were for dispensaries. Only 192 will be chosen, but the strong showing of interest demonstrates Missouri is more than ready for the industry.

### **MASSACHUSETTS EXPANDED INDUSTRY**

Massachusetts significantly expanded its recreational program in 2019, increasing the number of licensed stores from five at year-end 2018 to twenty-three in October. The state also issued proposed regulations that would allow for social consumption and delivery. Under the social-use program, up to twelve communities may host cannabis establishments where adults ages 21 and older may consume cannabis on site. Deliveries will be allowed for Economic Empowerment Priority applicants, social equity program participants, and microbusinesses with a delivery endorsement for an initial period of two years.

Overall, the future looks bright for the cannabis industry. Although there certainly will be trials and tribulations in 2020, the industry's momentum is strong and will only continue to accelerate next year.





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## The Inevitability of Automation

No matter how small or large a cannabis/hemp producer may be, automation is the future.

annabis production soon will be as sophisticated in its automation as any other large-scale consumer packaged goods industry, utilizing systems able to power rapidly expanding global marketplaces. These systems will employ all the bells and whistles modern technology has to offer, including game-changers like artificial intelligence (AI) and complex end-to-end systems that can process plant material from harvest to packaging with minimal human interaction. In fact, automated solutions are evolving as we speak, driven not by choice but by sheer necessity as the hemp and cannabis industries position themselves for historic growth on a global scale.

The numbers explain why automation is becoming imperative. We are accustomed to touting them, and the media equally accustomed to repeating them, for good reason: They anticipate explosive demand. In the United States alone, legal medical and adult-use sales today range

between \$13 billion and \$15 billion and are estimated to balloon to around \$24 billion by 2025. Internationally, with regions like South America, Africa, Europe, and Canada leading the way, global expansion is an ongoing phenomenon.

The global hemp market probably will exceed the size of the global cannabis market and be equally disruptive. Without exaggeration, hemp has the potential to revolutionize economies, create new markets and alliances, and make an array of new products widely available to consumers on a scale we have not seen before. It's already happening, in fact: Smokable hemp is big in Europe, Guatemala is pushing for largescale hemp/CBD production, and potential CBD production in Asia is attracting a lot of attention. Thailand is enthusiastic about getting into the game, and South Africa is developing a market. It will be interesting to watch where some of these countries go in the 2020 season. In their rush to embrace the

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"new normal," many already are considering converting large tracts of traditional agricultural lands to hemp production.

Unfortunately, while the amount of hemp being grown globally is mind-blowing, the available technology is not capable of handling the current cultivation volume. As a result, automation is following the same path as most other agricultural industries. As larger and larger grows require ever-more-sophisticated automated systems, the global market soon will require industrial-grade harvesting machines like the harvesters and combines used in traditional agriculture. Ultimately, complete, customizable, end-to-end automation is the future for the giants of the industry.

### **AUTOMATION AT EVERY LEVEL**

Automation is crucial for industrial-scale cannabis and hemp operations producing 1,000 kilos or more per day. In such an environment, end-to-end customized automated systems that, at a minimum, sort, trim, sift, and package are an absolute necessity. Ideally, the machines will learn continuously, improving as they run 24/7 and handle thousands of pounds of product per day while providing data collection and management around the clock in real time.

As the industry develops, small and medium cultivators also will need to embrace automation. For example, small farmers (1,000 to 5,000 kilos cultivated per year) in Northern California may find salvation in systems that enable aggregating services they will need to stay viable. These include communal, central locations with processing equipment to which farmers transport their raw material for processing. Automated

equipment will help such co-ops compete with larger operations.

Medium-sized operations—those producing from 500 to 1,000 kilos per month—also have specific needs that may be addressed by appropriate automation.

As larger and larger grows require ever-more-sophisticated automated systems, the global market soon will require industrial-grade harvesting machines like the harvesters and combines used in traditional agriculture.

Intelligent tools can help maintain high quality by providing producers with multi-function capabilities and precise measurements in terms of weights and packaging. Mid-size growers also need continuous processing capability and data monitoring in order to move a large amount of product through their systems while reducing the number of employees needed to operate the machinery. Recent automation innovation has focused on reducing to a minimum the number of people required to operate equipment, resulting in greater efficiency and a reduction in cases of contamination and human error.

### WORKING TOGETHER TO AUTOMATE A BETTER FUTURE

Because no single machine can meet all needs, producers inevitably will work with automated systems that range from single machines capable of one function to machines with multiple capabilities such as data collection, data management, programming, and packaging. In order to reach that point, collaboration will be key, especially when one considers the work necessary to establish processing from visual inspection systems, remediation, processing, trimming, sorting, solventless extraction systems, packaging and batching, and labeling—all while maximizing efficiency and minimizing waste.

Equipment-based communication also will be essential as different kinds of raw material are allocated to different value streams. Data-driven decision-making will be key to maximizing profitability, helping producers obtain maximum value from their raw material in order to remain competitive. Partnerships between equipment manufacturers and producers to create equipment that really works will be key. Market forces may drive technology, but technology works best when born within the industry it is designed to serve.

The emerging global cannabis and hemp industries will revolutionize economies, create new markets, and make widely available to consumers a new array of products on a large scale, but the magic carpet that will deliver this version of the future will take the shape of automated systems manufactured in partnership with the innumerable small, medium, and large producers and manufacturers in this brave new world.

# Attracting and Keeping Talent



## WHAT PERKS AND INCENTIVES DO WORKERS SEEK?

There is too much emphasis on perks, and that often distracts from

what really matters. Too many companies are trying to leverage perks over stable base salaries. Longevity, company culture, the team you are working with—these are more important than perks because, at the end of the day, how can you actually reap the rewards of the perk if you aren't going to be around long enough? With the lengthy list of startups in the industry, adding personal value and being individually integrated into brand development stand as incentives on their own.

Offering incentives or equity as an alternative to stable income doesn't work for every candidate. Every compensation package should be tailored to fit the candidate or position and contain clear terms that both parties agree on. It's things like these that are generally more important than extra vacation days or working from home.

Justin Dada Co-founder and CEO, Flourish Flourish.la



### HOW CAN COMPANIES ATTRACT TOP TALENT?

Before anything else, invest in a [human resources] team.

Allow them sufficient time to craft inclusive job descriptions, a welcoming interview process, and rubrics for fair hiring. Work with recruiters for key hires. Help with relocation expenses for skilled managers. One of the best retention rates is at 7 Stars Holistic Healing Center, a dispensary in Richmond, California, where the owners and managers do everything from reception to budtending and the entire team is knowledgeable about the menu. Berkeley Patients Group is celebrating its twentieth anniversary with \$1 Million For Good, a campaign to invest \$1 million in ten community partners. This kind of initiative will attract team members who want to be part of an organization that is making a tangible contribution to society.

Companies need to be creative when building teams. The strongest teams I've seen are a combination of people with and without cannabis experience and include all ages and genders. Predominantly white male teams are not sustainable, and the industry needs to move beyond hiring white women to bring diversity to a

group. We are approaching a critical mass of people disproportionately impacted by the war on drugs who are insisting that cannabis companies hire those most impacted. It is unacceptable that the vast majority of owners in the industry are white, while thousands of black and brown folks are still incarcerated for low-level offenses.

Danielle Schumacher Co-founder and CEO, THC Staffing Group THCStaffing Group.com



### WHAT CAN WE LEARN FROM THE MAINSTREAM ABOUT KEEPING TOP TALENT?

As dispensaries start to resemble high-end department stores, it's critical to have the human resources within the environment reflect the make-up of the store. So, it's extremely important to have a dedicated customer relations person available to address issues customers may have. You never want a customer to hold up the line or have a debate at the register with a budtender. Not only does this create a bottleneck for other customers, but it also creates a contentious environment that can discourage people from coming back.

Jacob Krushall Senior Recruiter, Vangst Vangst.com



## WHAT WILL THE JOBS MARKET LOOK LIKE OVER THE NEXT FEW YEARS?

A "war for talent" has been heating up, but we expect it to really intensify in the coming years. Where we currently see this most clearly is among the lynchpin roles in cultivation, extraction, and chemistry—particularly candidates who have both cannabis experience and years of previous, relevant experience in similar industries like agriculture, food and beverage, and pharma.

Lately, stock options have gained increasing popularity. However, both candidates and employers should beware of equity and stock option offerings. On the candidate side, make note of the vesting periods and talk to individuals who have been at that company longer and see if they've received the stock options they were promised. The devil is in the details of the offer letters and employment contracts.

Kara Bradford Co-founder and CEO, Viridian Staffing ViridianStaffing.com @



-Monica Lo





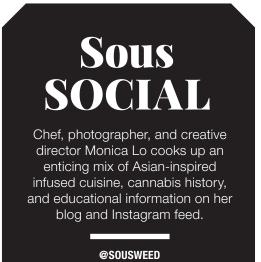
### How did you come to view cannabis as a superfood?

I really started to research the medicinal benefits of cannabis when I herniated a spinal disc. I was fed up with all the pills that wreaked havoc on my system. Along with acupuncture and chiropractic care, I also switched to an anti-inflammatory diet that included foods that fight inflammation like nuts, fatty fish, and a variety of leafy greens that included cannabis.



### What else did you learn?

I was excited to discover the roots of medicinal cannabis use in ancient Chinese medicine. This is our ancestral medicine, and I'm here to reclaim cannabis as a part of traditional Chinese medicine's healing repertoire and to help destigmatize and demystify cannabis within our communities.







## How do you use social media to destigmatize cannabis?

Instagram is a great platform to engage, empower, and connect with your audience. When I find an exciting piece of cannabis history, I like to share these tidbits with images that I've captured.



### What's your advice for brands?

Have a voice, be original, and don't be afraid to engage with your audience. Unique content is so important. I don't like to follow curated accounts that repurpose images and memes from all over the internet; that [kind of behavior] doesn't feel authentic. It's okay if social media is not your forte. You can always hire and collaborate with your favorite content creators and let them do what they do best.



### HOLIDAY COOKING TIP

If you have an infused butter on hand, you can easily make a medicated gravy for holiday dinner parties. You can also drizzle the butter on popcorn along with finely minced rosemary and parmesan cheese if you want to cuddle up with a good holiday movie.

—Monica Lo

Photos: Monica Lo; Brent Hofacker / Shutterstock

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