

Intro-Blue, LLC | 617-454-1088 | peter@intro-blue.com | www.intro-blue.com | Volume 23 | 12/11/19

FLOWER ONE (FONE): EXECUTING TO BECOME THE LEADING SEED-TO-SHELF CANNABIS COMPANY

Flawless execution, a strong focus on free cash generation, a stable management team, and leadership in a key cannabis-consuming state (Nevada) make [Flower One Holdings \(CSE:FONE/OTC:FLOOF\)](#) one of the cannabis names to watch in 2020. We discussed in our [Oct. 16 Stash report](#) how Cannabis 2.0 will separate the contenders from the pretenders as investors choose quality and stability of management, profitability, and free cash flows over growth-at-any-cost models. It will also end the currently high correlation (0.46) between cannabis stocks as the market consolidates and winners outperform the laggards. We believe Flower One Holdings, which is the largest cannabis cultivator, producer, and full-service brand fulfillment partner in Nevada, fits the bill of a winner.

We spoke with FONE management to understand their strategic priorities and the related KPIs investors should be monitoring as the company executes its goal of becoming the leading seed-to-shelf cannabis company offering brands an accelerated path to entry into key state markets and the ability to scale at a low cost. The five strategic priorities FONE investors should monitor:

1. **Cultivation** – high yield at low cash cost.
2. **Production** – ability to produce high-purity cannabis consistently and at scale.
3. **Brand assessment** – partnering with winning brands to meet strategic objective of owning dominant shelf space in Nevada.
4. **Expansion into new markets/geographies** – reverse MSO strategy: ‘Execute then Scale’ vs. most peers that scale and then focus on execution.
5. **Capital efficiency** – draw on scale, experience, technology, and expertise to become more capital efficient over time.

We are encouraged by the focused vision and execution of FONE’s management. We discuss the strategic priorities and related KPIs in detail below and will be monitoring each on an ongoing basis.

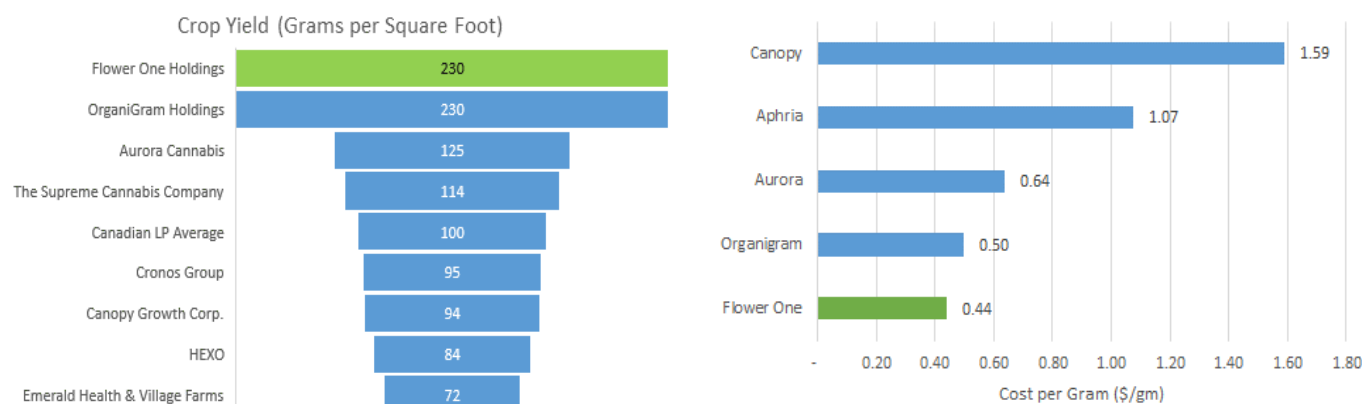
Chart 1: FONE’s Strategic Priorities and KPIs for Investors to Monitor

Strategic Priority	KPI to Monitor	Note
Cultivation	Yield - 230 gm/sq. ft. Cash cost - \$0.44/gm	FONE has become the cost leader in cannabis cultivation (<2 years)
Production	90% of early lots achieving potencies of 90% or greater	Cost leadership will dictate market share in product categories that rely on extract
Brand Assessment	Dominant shelf space in Nevada	Already recognized as key supply partner to market
New Market Expansion	KPI not defined yet	California identified as next market (2020 story)
Capital Efficiency	Lower capital intensity and higher state-level ROIC and FCF yields	Replicating large scale operation will be more efficient in new markets

Source: Intro-Blue, Company

Cultivation: FONE’s best-in-class yield and cash cost per gram will help the company take market share from peers. The company reported a cultivation yield of 38.3 grams per square foot per harvest cycle in 2Q19. Given that FONE has six harvest cycles, this translates into a crop yield of 230 grams per square foot vs. the Canadian LP average of ~100 grams per square foot, making FONE one of the most efficient players in North America. The yield moderated to \$192 per square foot in 3Q19 as FONE identified higher quality (thus higher margin) but lower yielding strains. Still, FONE’s cultivation yield is among the best in the industry. This high efficiency enables FONE to grow with cash costs of \$0.44/gram, which is more than one standard deviation better than peers and will help the company take market share from competitors that lack the same cost discipline. As the industry matures, we expect investors to value revenue per square foot more than yield per square foot as companies attempt to maximize absolute profits and minimize cost. We believe FONE possesses best-in-class fundamentals on both KPIs.

Chart 2: Efficiency (Crop Yield) of FONE's NLV Greenhouse Is Among the Highest While Cost per Gram is the Lowest Among Peers Across North America



Source: Intro-Blue, Company Reports

Production: FONE's ability to produce high-quality cannabis at scale is a key differentiator and one that will help establish the company as the leading seed-to-shelf player. Cannabis brands seek three things when choosing a production partner: quality, consistency, and volume.

- **FONE's 400,000 sq. ft. NLV greenhouse has eight flower zones and can produce over 92,000 kg of dry flower annually. It also has a 55,000 sq. ft. production facility.** This combination makes FONE the biggest cultivator and producer in Nevada and the fifth largest in the U.S., fulfilling the volume criterion which is a key requirement for customers, especially those requiring extraction services. FONE's production lab has been intentionally designed for large-scale product fulfillment. By leveraging multiple extraction methods – namely ethanol, LPG, and CO2 – that run in parallel, Flower One has access to three upstream extraction channels, granting it the flexibility to leverage the specific extraction techniques needed to produce a wide range of cannabis products.
- **The performance of FONE's extraction lab is best-in-class with 90% of early lots achieving potencies of 90% or greater,** a big positive as the first lots of concentrates made by FONE will enter the market in 4Q19. The extraction lab has the capacity to process 3,000 to 5,000 pounds of biomass and 100 to 150 liters of distillate per week. We believe this is a key differentiator as most suppliers are unable to meet the stringent quality requirements of states like NV and CA. As a result, vaping companies sometimes require more than 20 relationships to ensure uninterrupted supply. Given the ongoing vaping crisis, we believe the focus of brand partners on quality is only going to increase going forward, and that quality-focused players like FONE are best placed to emerge as winners since market share will consolidate among players that can guarantee quality. We will be closely monitoring the consistency of FONE's supply in the next few quarters to evaluate the company's performance on this key strategic objective, as this is a key driver of margin expansion for FONE.

Chart 3: FONE's Scale Is A Key Tenet of its Strategy to Become a Leading Brand Fulfillment Partner















Region	Name of Grow	Location	Capacity (Sq. Ft.)	-
Western US	Palo Verde Center	Blythe, California, USA	2,400,000	
Western US	Copperstate Farms	Snowflake, Arizona, USA	1,700,000	
Western US	Los Suenos Farms	Pueblo, California, USA	1,428,000	
Eastern US	Americann	Freetown, Massachusetts, USA	1,000,000	
Western US	Flower One Holdings	Las Vegas, Nevada, USA	480,000	
Western US	Harvest Inc.	Tempe, Arizona, USA	208,800	
Eastern US	GrowHealthy	Lake Wales, Florida, USA	200,000	
Western US	Glass House Farms	California, USA	200,000	
Western US	Reef Dispensaries	Las Vegas, Nevada, USA	165,000	
Western US	LivWell	Denver, Colorado, USA	162,000	
Eastern US	Revolution Enterprises	Illinois, USA	151,050	
Western US	Green Man Cannabis	Denver, Colorado, USA	128,000	
Western US	Grow Op Farms	Spokane, WA, USA	110,000	
Western US	Colorado Harvest Company	Denver, Colorado, USA	62,000	
Eastern US	Vireo Health NY	New York, New York, USA	60,000	
Western US	Essence Vegas	Las Vegas, Nevada, USA	54,000	
Western US	MedMen	Culver City, California, USA	49,100	
Western US	R. Greenleaf Organics	Albuquerque, New Mexico, USA	37,500	
Western US	Veritas Cannabis	Denver, Colorado, USA	25,000	
Western US	Swami Select	Medocino County, California, USA	10,000	

Source: Intro-Blue, Company, Growers Network

Brand assessment: Quality over quantity – this is going to be FONE’s brand strategy as it works toward capturing dominant shelf space in Nevada. FONE’s value proposition for brand partners is very strong. The company is differentiated from competition since its primary focus is to build partner brands and not its inhouse brand (like peers). As a result, FONE can extend instant access to production volume and supply cannabis as required by its brand partners, helping them establish/strengthen their presence in Nevada in a short period of time and at a lower cost. This strong client focus, coupled with FONE’s scale and quality processes, is reflected in the 15 brands that have partnered with FONE so far. The company has launched sales of five brand partners and is on track to launch more in the coming of quarters (see chart below). These launches will serve as a significant growth catalyst for the company in 2020. The performance of the already-launched brands is comforting as Old Pal and NLVO are among the top-10 best-selling flower brands in Nevada.

- **Management has articulated that brand assessment is a core competence, some of which is their “secret sauce.”** The company has a very long list of brands that would like to partner with it. However, our interaction with management suggests that FONE has become more selective in its brand partnerships. Its aim is to partner with brands that will resonate with Nevada customers, help FONE garner market share, and where the company can add value through volume discounts, just-in-time delivery, and efficient supply chain management. We expect KPIs in brand assessment to shift from number of brands to penetration rates at dispensaries, and even more granular to percentage of shelf-space over time. We estimate that FONE currently has product relationships with 85% of the 67 dispensaries in Nevada, a number that is expected to nearly double by the end of 2019.

Chart 4: FONE’s Brand Addition Strategy Is Aimed at Capturing Dominant Shelf Space Rather Than Number of Brands

LAUNCHED					Q4 2019 LAUNCH	
						
Q1 Q2 2020 LAUNCH						
						

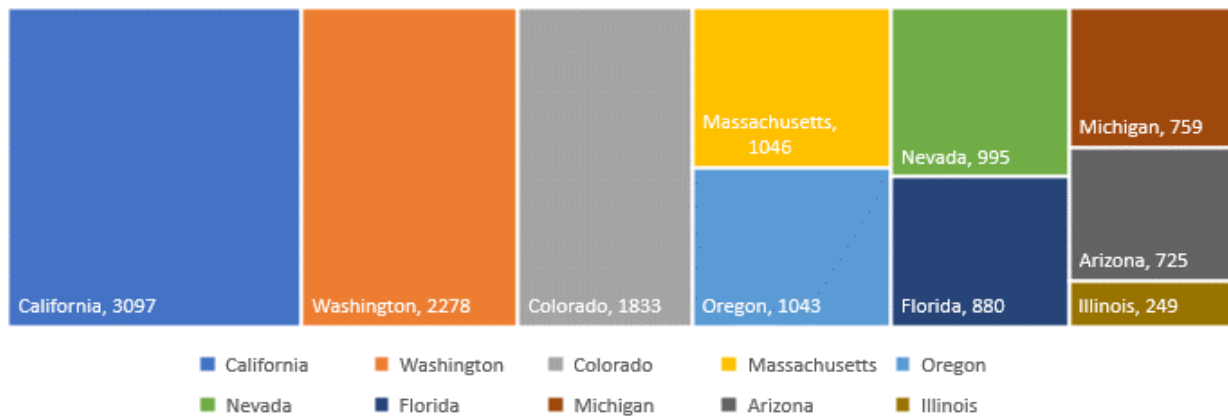
Source: Intro-Blue, Company

Expansion into new markets: The guiding principle will be ‘Execute then Scale’ vs. the ‘Scale then Execute’ plan that is followed by most MSOs. In our [Cannabis Industry Primer](#), we discussed how the current regulatory setup in the U.S. favors players that have a leadership position in a few states (market share and brand recognition), are not/least affected by restrictions on inter-state movement of cannabis, and whose operations are capital efficient (FCF positive). Still, most MSOs have been expanding aggressively into multiple states – organically and inorganically – in order to grab the early mover advantage and with the hope of positioning themselves favorably ahead of eventual federal legalization. Most of these expansionary moves have been dilutive in nature given the variation in cannabis regulations across states, high competitive intensity in the industry, the capital-hungry nature of the cannabis business, and the limited management and execution bandwidth at most cannabis companies.

- **To avoid the above pitfalls, FONE has taken a different and more measured approach (reverse MSO) to expansion.** FONE was able to build its Nevada greenhouse from conception to revenue generation in less than 14 months, and to \$10mn in revenue in <2 years. Now, instead of expanding into multiple states at the same time, the company plans to leverage the strengths of its Nevada operations and gradually expand into other states, starting with California. The company will benefit from California’s proximity to Nevada, which will allow it to leverage the already-established processes and efficiencies related to cannabis production and cultivation, as well as management, purchasing, training, and brand engagement. While the efficacy of this strategy will be put to the test in the coming quarters, we believe that such a measured and well-planned approach to expansion is unique in the cannabis industry and should allow FONE to remain true to its objective of being FCF positive in each state in which it operates.

Chart 5: FONE Is Likely to Enter California, the Largest State Market in The U.S., in 2020

Estimated Size of Top 10 State Markets in 2020 (\$ Million)



Source: Intro-Blue, Intro-Blue, State Taxation Departments, New Frontier Data

Capital efficiency: FONE remains committed to building an FCF-positive business whose efficiency continues to improve over time. FONE's strategy is aimed at ensuring that operations in each state generate free cash, which can then be deployed for expansion in the same or other states. Management has guided that FONE will be free cash flow positive in 1H20. We believe that FONE could generate as high as a 38%+ EBITDA margin in the next couple of years, with 2-3x the profitability of the rest of the players. The company aims to drive margin improvement by engaging in refinement, compounding, and commercial-kitchen-related activities, including ongoing optimization via data-driven continuous improvement processes. It also plans to leverage its scale, experience, technology, and expertise to become more capital efficient over time – ensuring that expansion into new states costs less (lower capex) and that FCF generation remains a top priority. FONE spent ~\$120 million to build its Nevada operations. However, capital needs are going to decrease considerably as the CAPEX for Nevada operations is complete and the company requires only maintenance capital of \$1.8 million in 2020. This, coupled with the recent fund raises by the company, means that FONE is well capitalized to execute its growth strategy, launch new brands, capture a large part of the Nevada market, and generate free cash flow in the coming quarters.

Chart 6: FONE Is A Fully Integrated CPG Cannabis Fulfillment Partner



Source: Intro-Blue, Company

CANNA NEWS

STATE AND REGULATORY NEWS

The cannabis industry's nine biggest moments of 2019. The cannabis industry made major strides in 2019, from Ohio's launch of medical cannabis sales in January to Michigan's announcement that it would start adult-use sales in December. The industry's biggest moments of the year include:

1. Ohio launches medical marijuana sales
2. Illinois legalizes cannabis
3. FDA holds first-ever public hearing on CBD
4. Louisiana pharmacies launch medical cannabis sales
5. Vaping-related lung disease prompts public health questions
6. U.S. House passes SAFE Banking Act
7. With White House approval, USDA posts interim hemp regulations
8. Michigan launches adult-use cannabis sales December 1
9. Key House committee approves MORE Act to federally decriminalize cannabis

[Read More](#) (Cannabis Business Times)

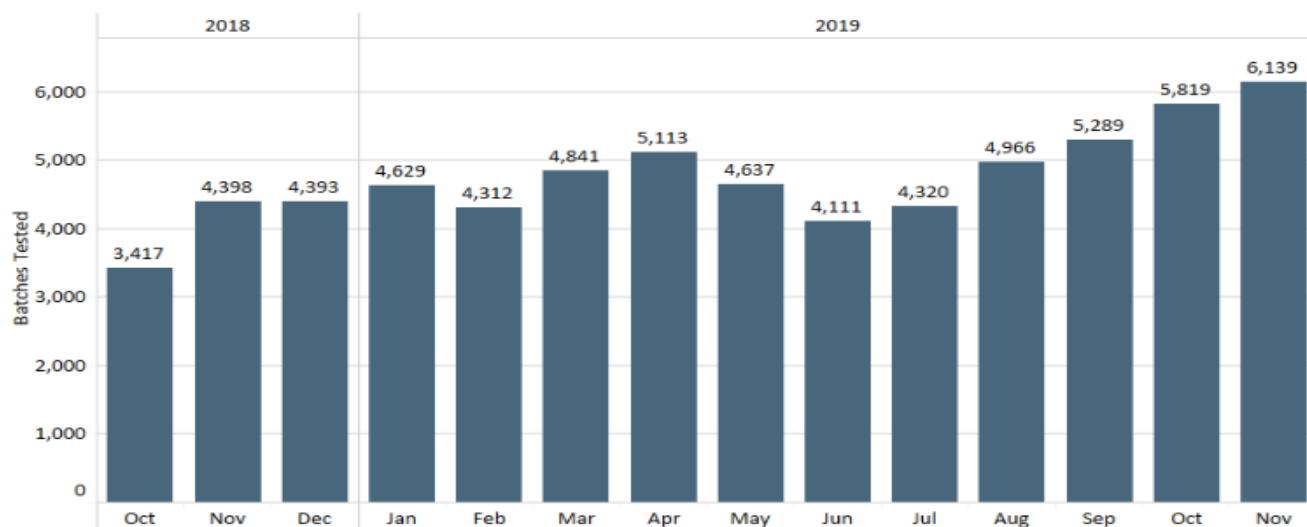
The three most anti-cannabis presidential candidates. At a time when historic votes are being conducted in Congress, it would appear that momentum lies with those trying to reform existing marijuana laws. Yet three presidential candidates in the 2020 election, two of which are front-runners, may stand in the way of this progress.

- **Joe Biden:** Among the large field of Democratic presidential candidates, most support some form of legalization of cannabis. But when it comes to front-runner Joe Biden, cannabis isn't something he's exactly thrilled to discuss.
- **Michael Bloomberg:** Of all the presidential candidates still left in the race (on either side), none has a more outright negative view on marijuana than billionaire Democratic candidate Michael Bloomberg.
- **Donald Trump:** Republican incumbent Donald Trump is also no sure thing to support marijuana reform efforts. While Trump is likely the most amicable of these three presidential candidates toward pot, it's still quite possible he'd be against significant reforms of existing cannabis laws.

[Read More](#) (Fool.com)

Uptick in California lab-tested marijuana products met with both hope and skepticism from industry. The number of legal cannabis product batches undergoing lab testing in California each month has rebounded since a lull over the spring and summer and, as of late November, was on pace to grow even more before the end of the year. But the increase in legal product making its way through the supply chain met with mixed reactions from California marijuana industry insiders as the turbulent market in the state still struggles to find some measure of stability. [Read More](#) (Marijuana Business Daily)

Chart 7: California Cannabis Testing (Batches Tested per Month)



Source: Intro-Blue, Marijuana Business Daily

11 states that could legalize cannabis in 2020. While many states pondered adult-use cannabis legalization this year, only Illinois found success with its Cannabis Regulation and Tax Act (CRTA), which passed the state legislature and earned the governor's approval this past summer. With 2020 rapidly approaching, many states with failed 2019 legalization efforts may try again, while others have announced plans to put forth their first attempts at policy reform. The states to watch next year are:

1. Arizona
2. Arkansas
3. Florida
4. New Jersey
5. South Dakota
6. Pennsylvania
7. New Mexico
8. Montana
9. New York
10. North Dakota
11. Virginia

[Read More](#) (Cannabis Business Times)

California marijuana tax hike puts future of legal market in spotlight amid worries over state industry's viability. Flurries of meetings and negotiations have occurred behind the scenes in Sacramento since California announced a cannabis tax increase last month. The stakes surrounding these discussions – all aimed at lowering the marijuana industry's tax burden – are nothing less than the survival of the state's legal marijuana market, according to some industry watchers. [Read More](#) (Marijuana Business Daily)

For cannabis, Oklahoma is more than OK. As a market for cannabis, Oklahoma may not register on a lot of people's radars – but perhaps it should. As of November, more than 200,000 people in the state now have medical marijuana cards – a significant 5% of the state's roughly 4 million people. To put that into perspective, consider that Florida, one of the hottest states for medical marijuana, has over 300,000 registered medical marijuana users, just 1.4% of its more than 21 million residents. [Read More](#) (Fool.com)

Maine to issue applications for first marijuana stores. Maine's path to legalized sales of marijuana has cleared a major hurdle with the state making applications for retail businesses available. The state Office of Marijuana Policy said that license seekers can now start the application process to open businesses that sell marijuana for recreational adult use. The state's also taking applications from businesses that want to manufacture or cultivate marijuana for adult use. [Read More](#) (AP News)

North Dakota activists submit measure to legalize marijuana in 2020. North Dakota activists submitted a measure to legalize marijuana for adult use to state officials. Legalize ND, the group behind the proposed statutory initiative, delivered the measure to the secretary of state's office. It's expected to be validated within days, after which point petitions will be distributed to collect signatures in support of qualifying for the 2020 ballot. It's been about a year since organizers began working on the measure, which would allow adults 21 and older to possess and purchase cannabis for personal use. [Read More](#) (Marijuana Moment)

Alberta weighs legal changes for marijuana vape market. Findings from Alberta, Canada's smoking law review could lead to legislative or regulatory changes involving cannabis vaping – though the analysis is not specifically aimed at cannabis. The review, which started in October, is being conducted because Alberta's current legislation does not address vaping or "tobacco-like" products. It is expected to be completed by the end of the year so potential amendments can be considered in 2020. [Read More](#) (Marijuana Business Daily)

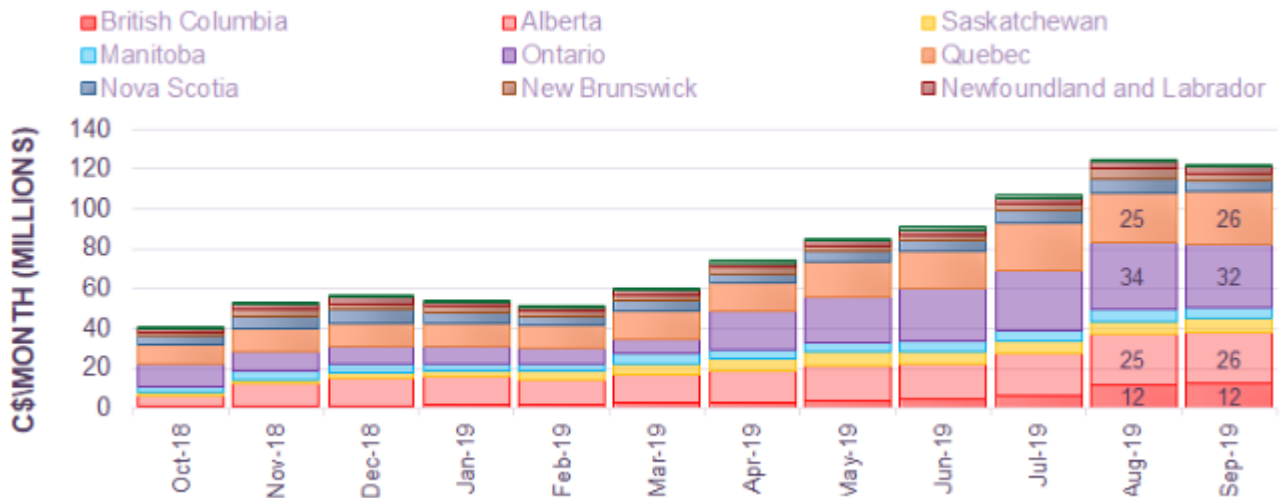
Closings (and cannabis) contribute to most U.S. job cuts since 2015. U.S. employers cut 4 percent more jobs from their payrolls in the first 11 years months of this year than they did for all of 2018, according to new data. A new reason has been added for the slump: poor regulation of cannabis. Employers dropped 559,713 positions between January to November, surpassing 2018's full-year total of 538,659, according to the report from staffing firm Challenger, Gray & Christmas Inc. This marks the most job cuts in the 11-month period since 2015, the consultancy said.. [Read More](#) (BNN Bloomberg)

Ontario expects to start selling edibles on Jan. 6, 2020. The Ontario Cannabis Store will begin selling Cannabis 2.0 products in the new year. The government store confirmed edibles, extracts, vapes and topicals "should start to appear in stores beginning January 6, 2020," to The GrowthOp via email. This comes as cannabis companies race to get their items on store shelves in time for Dec. 16, the first day companies can start selling the products. [Read More](#) (The GrowthOp)

Newfoundland and Labrador latest province to ban legal pot vape products. Newfoundland and Labrador plan to ban cannabis vape products as the province aims to protect public health amid a health crisis in Canada and the U.S. The provincial government stated that the products, set to become federally legal for sale on Dec. 16, will not allowed to be sold in the Atlantic Province as it needs more time to study vaping issues in light of any relevant clinical evidence. Newfoundland and Labrador's move follows a similar one by Quebec last month to ban vape products until further notice. [Read More](#) (BNN Bloomberg)

59 new cannabis stores opened in September, all of them in Alberta and British Columbia. However, additional retailers in those provinces did not result in significant sales expansion in September. The chart below shows monthly retail cannabis sales by province. In addition to relatively stable sales in the two aforementioned provinces, the other two largest – Ontario and Quebec – saw a small decrease and a small increase, respectively, in revenue generated by legal cannabis retailers. One of the most notable figures from the September report was the large drop in sales from the Maritime provinces. Up until now, these four Eastern provinces have been outperforming the rest of the country in sales per cannabis user. Up until April, sales from the Maritime provinces were higher than all of Ontario and their September sales still exceed those of British Columbia.

Chart 8: Retail Cannabis Sales by Province



Source: Intro-Blue, Statistics Canada, Cannabis Benchmarks

COMPANY NEWS

Canopy Growth announces David Klein as new Chief Executive Officer. [Canopy Growth \(CGC\)](#) announced that effective January 14, 2020, David Klein has been appointed as the Company's Chief Executive Officer. In his current role as executive vice president and chief financial officer at [Constellation Brands \(STZ\)](#), David oversees all aspects of the company's finance operations, all mergers and acquisitions, as well as the company's information technology function. David serves as a member of Constellation Brands' executive management committee. He has served on the Canopy Growth Board of Directors for over a year and is presently Canopy Growth's Board Chair. [Read More](#) (PR Newswire)

GW Pharma shares clinical trial data to support Epidiolex safety and efficacy. Study results showed that [GW Pharma's \(GWPH\)](#) EPIDIOLEX significantly reduced difficult-to-treat seizures associated with TSC and improved overall patient condition as reported by caregivers. New secondary endpoint data, presented for the first time at AES, showed that more patients on EPIDIOLEX experienced a 50% or greater reduction in seizures (36% for 25 mg/kg/day and 40% for 50 mg/kg/day) compared to placebo (22%; p=0.0692 and p=0.0245, respectively). [Read More](#) (New Cannabis Ventures)

Aphria Diamond cost creeps higher as first marijuana sales pushed to March. Federally regulated cannabis producer [Aphria \(APHA\)](#) expects the first harvest from its Diamond facility in Leamington, Ontario, to be sold to provincial wholesalers in March, capping off a year-plus delay from when shipments were initially expected to start. Aphria expected Diamond to be completed in time for its first sale in January 2019 – a goal long-since abandoned – as the 1.3-million-square-foot greenhouse was not approved by Health Canada for cultivation until Nov. 1, 2019. [Read More](#) (Marijuana Business Daily)

Auxly clears key milestones for phase two cannabis product sales. [Auxly Cannabis \(CBWTF\)](#) announced that it has entered into an agreement with every Canadian province (except Quebec) to commence sales of cannabis 2.0 products (extracts, edibles and topicals) and has secured in excess of 250 listings in the aggregate for its vape, chocolate and chewable products across nine provinces. This development, following the company's submission to Health Canada of new product notifications for 83 derivative cannabis products announced in October, means that Auxly will be ready to sell vapes, chocolates and chewables beginning December 16 when the sale of those products becomes legally permitted. [Read More](#) (Globe Newswire)

22nd Century buys Colorado CBD company for up to \$24 million in cash and stock. [22nd Century Group \(XXII\)](#) announced the initial closing of an investment in Panacea Life Sciences, a vertically-integrated, consumer-facing company operating exclusively in the legal, hemp-derived, CBD product space. 22nd Century's investments in Panacea over the next twelve to eighteen months are expected to total \$24 million, in a combination of cash and 22nd Century stock. [Read More](#) (New Cannabis Ventures)

Executive shifts at Medicine Man Technologies. [Medicine Man Technologies \(MDCL\)](#) announced several changes to its executive leadership team. The company's Board of Directors has appointed Justin Dye of Dye Capital as Executive Chairman and Chief Executive Officer. Dye brings more than 25 years of strategic management, operations, strategy, corporate finance, and M&A experience. Additionally, Bob DeGabrielle has been appointed as Chief Operating Officer of the company. Finally, Nancy Huber has been promoted to Chief Financial Officer. [Read More](#) (Marijuana Retail Report)

Agraflora to acquire Sanna Health corp for \$23 million. [Agraflora Organics \(AGFAF\)](#) announced that it has signed an interim agreement to acquire Sanna Health Corp in an all-stock transaction valued at \$23 million. Sanna, a licensed cannabis operator, is located within the Greater Toronto Area and currently has licensing for cultivation, processing, and medical sales of cannabis. The transaction will see Agraflora acquire the operator for a total of \$23 million in an equity-only transaction, marking one of the cheapest M&A transactions yet in the space for a fully licensed operator. [Read More](#) (the deep dive)

Zenabis facility failed inspection for EU quality certification last year. A facility operated by [Zenabis Global \(ZBISF\)](#) failed an inspection to receive a key European Union certification last year, hindering the cannabis producer's ability to ship medical cannabis to the continent. Regulators in Malta published a "statement of non-compliance with GMP [good manufacturing practice]" against Zenabis Nov. 27 after determining that an inspection conducted on Dec. 16, 2018 at the company's facility in Delta, B.C. did not comply with the EU's GMP requirements. [Read More](#) (BNN Bloomberg)

Hightimes Holding, other cannabis publishers may be shutting down. Hightimes Holding, which publishes the 45-year-old High Times magazine, warned shareholders in its latest SEC filing that it may not be able to continue operations. High Times is not alone. Civilized, which counted comedian Chelsea Handler as an investor has been taken over by New Frontier Data after burning through about \$10 million in investment money, according to cannabis.net. The website MassRoots, which raised over \$20 million and managed to pull off a successful IPO in the past, has apparently gone dark in recent weeks, according to a report on cannabis.net. [Read More](#) (NY Post)

Wayland Group - one of Canada's oldest cannabis producers - seeks creditor protection. [Wayland Group \(MRRCF\)](#) said it is seeking creditor protection to pursue restructuring and consider financing arrangements. Wayland subsidiary Maricann became the 19th licensed producer in Canada by receiving its federal approval in early 2014. NVS Chartered Accountants resigned as Wayland's auditor, effective Dec. 3. PricewaterhouseCoopers is the company's court-appointed monitor. Also, federally regulated cannabis company AgMedica Bioscience and its subsidiary, Wellworth Health, applied for creditor protection to restructure the business. [Read More](#) (Marijuana Business Daily)

EARNINGS

Emerald Health posts loss of \$17.5 million in 3Q19. [Emerald Health Therapeutics \(EMHTF\)](#) released its third quarter results, revealing a pending cash crunch at the firm as market expectations fail to meet reality. The issuer reported net revenues of \$9.3 million for the period ended September 30, 2019, with a net loss of \$17.5 million. Revenues were up for Emerald Health on a quarter over quarter basis by 101%, with last quarter seeing revenues of \$4.6 million on a net basis. However, the firm has yet to post a positive gross margin for the fiscal year, which has severely impacted Emerald's ability to find a path to profitability. [Read More](#) (the deep dive)

SQDC takes in \$5 million in quarterly profits. The Societe quebecoise du cannabis (SQDC) brought in \$5 million in profits on revenues of \$63.8 million during the second quarter of its fiscal year. The Quebec government, which runs the network of cannabis stores, took in \$17 in million in taxes and excise fees during the 12-week period ending Sept. 14, the SQDC says. During its second quarter, the SQDC added four new stores - in Montreal, Sherbrooke, Saint-Jerome and Sainte-Agathe-des-Monts - to its network, which should grow from 20 stores to 30 stores by the end its third quarter at the end of March. [Read More](#) (CTV News)

CAPITAL MARKETS

Organigram announces \$55 million at-the-market offering. [Organigram Holdings \(OGI\)](#) announced that it has established an at-the-market equity program that allows the corporation to issue up to C\$55,000,000 (or its U.S. dollar equivalent) of common shares from treasury to the public from time to time, at the corporation's discretion. Any common shares sold in the ATM Program will be sold through the Toronto Stock Exchange, the NASDAQ Global Select Market or any other marketplace on which the common shares are listed, quoted or otherwise traded, at the prevailing market price at the time of sale. The volume and timing of distributions under the ATM Program, if any, will be determined in the corporation's sole discretion. [Read More](#) (Business Wire)

Cresco Labs establishes at-the-market offering. [Cresco Labs \(CRLBF\)](#) announced that it has entered into an equity distribution agreement with Canaccord Genuity Corp. pursuant to which the company may, from time to time, sell up to C\$55 million of subordinate voting shares in the capital of the company. The company intends to use the net proceeds of the ATM Program, if any, principally for general corporate purposes (including funding ongoing operations and/or working capital requirements), to repay indebtedness outstanding from time to time, discretionary capital programs, and potential future acquisitions. [Read More](#) (Business Wire)

Why at-the-market offerings are getting so popular in the cannabis industry. As companies contend with the capital crunch that has hit the industry, we are seeing several different approaches to raising capital emerge, including sale/leaseback transactions, rights offerings, debt with warrants, and, increasingly, equity sales known as “at-the-market” programs (ATMs). Two companies announced ATMs this week, and we count now 5 Canadian LPs, 2 MSOs and a REIT that have put programs in place. [Read More](#) (New Cannabis Ventures)

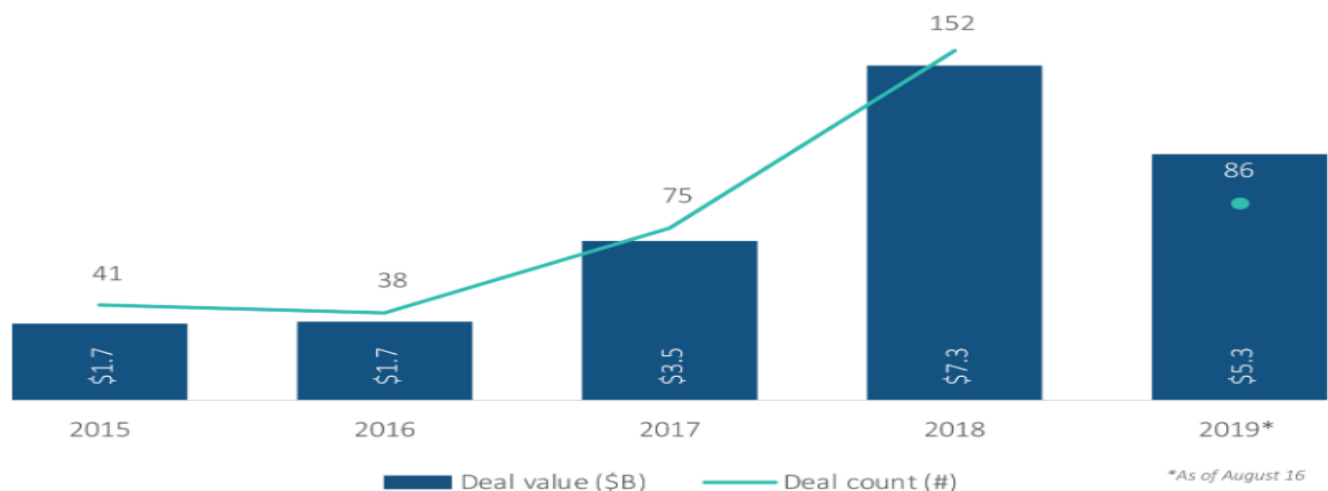
Several debt deals coming, top banker says. Debt capital is finally becoming more widely available to cannabis companies, according to one of the biggest bankers to the industry. “You’re definitely going to see debt capital flow into the sector,” Dan Daviau, chief executive officer of Canaccord Genuity Group Inc., said in an interview. “That’s happening as we speak. You’ll see several debt deals announced over the next week or so.” Although debt-like forms of financing such as convertible debentures are common in the pot sector, very few companies have issued true corporate debt. [Trulieve Cannabis Corp](#) and [Green Thumb Industries](#) are two of the only cannabis companies to tap the fixed-income markets in a significant way. [Read More](#) (Bloomberg)

HEXO closes \$70 million private placement of convertible debentures. [HEXO Corp \(HEXO\)](#) announced the closing of its previously announced private placement of unsecured convertible debentures for aggregate gross proceeds of \$70 million. The company intends to use the net proceeds of the Offering for working capital and general corporate purposes. The group of investors under the Offering includes, but is not limited to, Sebastien St-Louis, CEO of HEXO, as well as directors Dr. Michael Munzar, Vincent Chiara, Nathalie Bourque and Adam Miron. [Read More](#) (Globe Newswire)

Pot reality doesn’t match depressed markets: Trulieve CEO. Kim Rivers, chief executive officer of [Trulieve Cannabis Corp. \(TCNNF\)](#), felt like she was about to live one of those nightmares where you throw a party and no one shows up. It was Oct. 1, “one of those all-red days” for cannabis stocks and Trulieve was holding a grand opening for a new dispensary in Destin, a small city in the Florida Panhandle. “I thought, ‘There’s going to be like five people here, no one’s going to show up,’” Rivers said. “But I pulled up and it was packed, standing room only, 100 people literally in line waiting for us to open.” “I really believe there’s a disconnect between what’s happening in the markets and what folks are seeing in their businesses,” Rivers said. [Read More](#) (BNN Bloomberg)

Cannabis has VC market buzzing as firms seek to capitalize on hype. In the U.S., VC dollars are beginning to pour into the cannabis space on the assumption that recreational use will eventually be legalized under federal law. The “when, not if” assumption is fueling a sense of promise for investors, but in the meantime, the state-by-state expansion of the cannabis market means that any attempt for companies to scale across state lines comes with regulatory headaches. On top of the difficulty in scaling, the prize of doing business in a new state is limited to the size of that state’s population, which isn’t always significant. [Read More](#) (PitchBook)

Chart 9: Uptick in Cannabis Industry M&A



Source: Intro-Blue, PitchBook

MEDICAL CANNABIS

Could legal marijuana upend the \$41 billion sleep aid market? In a restless society whose insomniac citizens spend a reported \$41 billion per year on sleep aids—and where tiredness or other consequences of an inability to rest costs \$63 billion in “lost productivity,” a fuzzy metric but one with lots of alluring zeroes—something that does nothing but speed somnolence does something very big indeed. Oddly enough, given Americans’ demonstrated inability and desperate desire to get some sleep, insomnia is not a specific qualifying condition for medicinal cannabis in any U.S. state with medical marijuana on the books. [Read More](#) (Observer)

Interest in medical marijuana use exceeds Missouri estimates. Interest in medical marijuana use has far outpaced expectations only five months into Missouri's new program. Missouri issued close to 22,000 medical marijuana cards since July 4, the St. Louis Post-Dispatch reported. Researchers with the University of Missouri's Economic and Policy Analysis Research Center previously estimated that the state wouldn't reach that many patients until 2021. "We have always predicted that the numbers would be far larger than the MU Economics study predicted," said Dan Viets, who leads the Missouri Cannabis Industry Association. [Read More](#) (KCTV 5 News)

Over 200 visitors enroll in New Mexico medical cannabis program. New Mexico's medical cannabis program is attracting enrollment from outside the state after legislative reforms did away with an in-state residency requirement. November enrollment statistics from the state Health Department show that 215 cannabis patients reside outside the state. New Mexico medical marijuana provider Ultra Health said that nonresident patients are coming primarily from the neighboring state of Texas and from as far away as Illinois and Michigan. Total patient enrollment climbed to 78,810. That is an 18% increase since November 2018. Per-patient enrollment in the cannabis program is highest in rural Sierra, Quay and Lincoln counties. [Read More](#) (Marijuana Retail Report)

Medical marijuana cards often sought by existing heavy users. Young adults who seek enrollment in state medical marijuana programs are often those who already use heavily rather than those with mental or physical issues that could be addressed by the drug. That's according to new results published in the Journal of Studies on Alcohol and Drugs. These results have implications for states that have legalized medical marijuana or are considering such legislation. Policymakers, according to the authors, should "design medical marijuana programs in their states that allow card acquisition only for people with mental and physical health problems that have documented evidence of medicinal benefit." [Read More](#) (Science Daily)

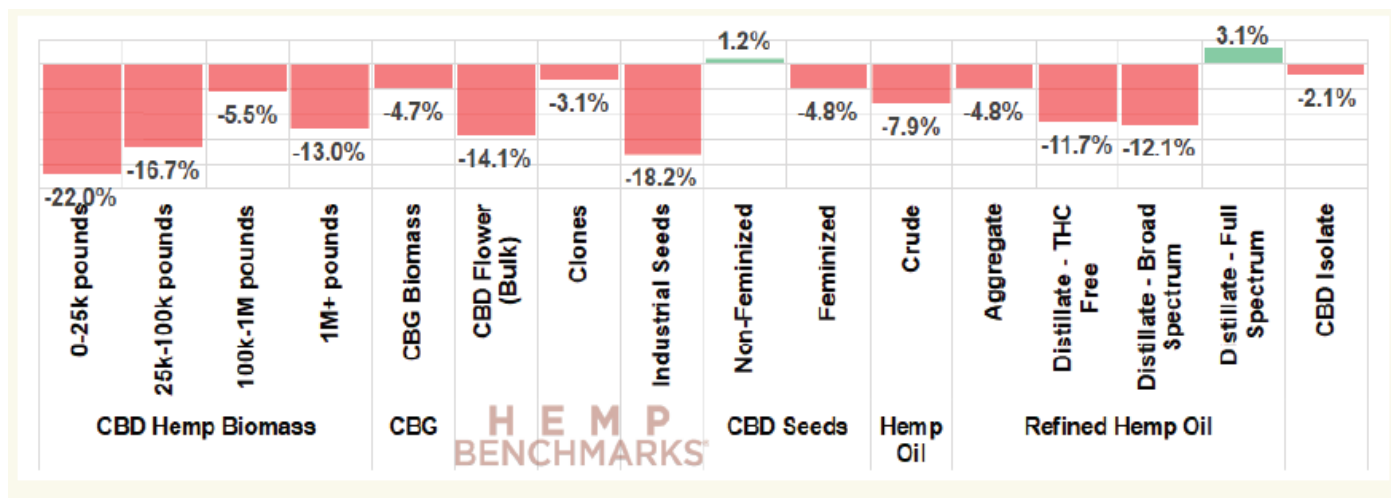
Rhode Island proposes new rule for out-of-state medical marijuana users. Rhode Island agencies have proposed a new regulation on the sale of medical marijuana that would require out-of-state patients to present identification from their state as proof of residency. Last year, state lawmakers began allowing dispensaries to sell to out-of-state residents, and 6,500 people who were Rhode Island residents changed their patient card addresses to California, according to the Providence Journal. Many patients are looking to California because the patient-card rules there are more relaxed there than they are in Rhode Island, the paper reported. [Read More](#) (AP News)

CBD/HEMP

Rocky start for inaugural hemp auction. Optimism around a three-day hemp auction in Tennessee turned to disappointment when producers found way more sellers than buyers, driving prices down and leaving some frustrated. But organizers of the inaugural International Hemp Auction and Market, modeled after tobacco auctions in the area, say the market volatility will settle down, making future auctions more valuable. [Read More](#) (Hemp Industry Daily)

Buyer's market for CBD-rich hemp biomass persisted in November. Much of the feedback received from Hemp Benchmarks' price contributor network indicated that moving biomass remains difficult in the wake of the harvest. A Pennsylvania farmer stated to Hemp Benchmarks that, "The market has been extremely slow and a lot of buyers are offering low [prices for biomass]." Also notable were lower prices for relatively small volume biomass deals of under 25,000 pounds. This suggests that small producers may be looking to offload their crops for whatever they can get at the moment, rather than dealing with the difficulties of storage and uncertain market conditions in the future. [Read More](#) (Hemp Benchmarks)

Chart 10: Month-to-Month % Price Change in November



Source: Intro-Blue, Hemp Benchmarks

Chart 11: U.S. Biomass Wholesale Pricing Trends
(\$ / %CBD / pound)

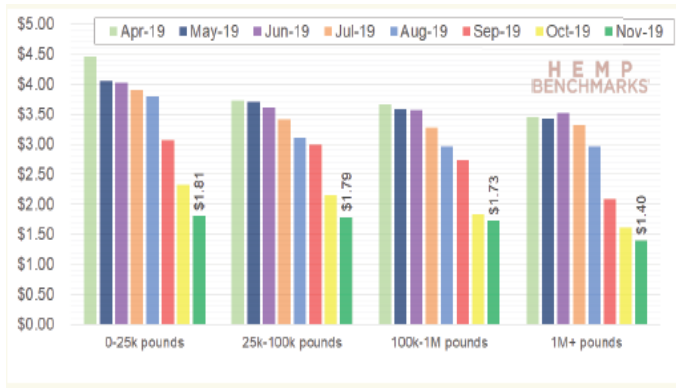
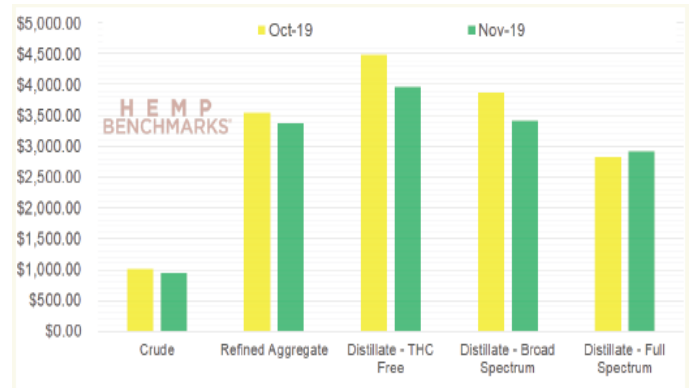


Chart 12: U.S. Hemp Oil Pricing Trends
(\$ / kilo)



Source: Intro-Blue, Hemp Benchmarks

Hemp banking gets a boost as four federal agencies remove red tape for new crop. After a season long struggle associated with banking and financing their operations, hemp farmers and businesses can exhale now that federal and state financial institutions have loosened reporting restrictions on hemp banking and issued guidance to members. The Federal Reserve Board, the Federal Deposit Insurance Corp., the Financial Crimes Enforcement Network (FinCEN) and the Office of the Comptroller of the Currency as well as the Conference of State Bank Supervisors filed a joint statement notifying banks that they are no longer required to file suspicious activity reports (SARs) for customers who grow hemp in accordance with applicable laws and regulations. [Read More](#) (Hemp Industry Daily)

New Mexico to invest \$400,000 in Las Cruces hemp manufacturing firm. A hemp manufacturing business in Southern New Mexico will get a boost from the state's Economic Development Department. The agency said it has pledged to invest \$400,000 in 420 Valley as part of a continued effort by Gov. Michelle Lujan Grisham's administration to grow the burgeoning industry. 420 Valley plans to move into a vacant building in Las Cruces, where it will cultivate hemp, then extract and refine it into manufactured products such as oil, edibles and topical ointments. The company expects to start hiring workers early next year and payroll to be at \$2 million in three years.. [Read More](#) (Hemp Industry Daily)

Czech firm seeks Novel Food designation for synthetically made CBD. The European Food Safety Authority (EFSA) has registered an application for synthetically manufactured Cannabidiol as a Novel Food ingredient from Czech-based phytocannabinoids maker CBDepot. The development marks an important step in the process of getting hemp extracts declared "suitable" as a food ingredient in European Union states, said Boris Bañas, founder and CSO at CBDepot. [Read More](#) (Hemp Today)

PRODUCTS

Canadian provinces erect barriers for regulated cannabis vape market. Newfoundland and Labrador joined Quebec in banning the products, while British Columbia earlier said it's raising its sales tax on legal oil and dried flower vapes to 20%. All three provinces cited severe lung illness related to vaping. An industry body representing federally regulated cannabis producers acknowledged the risks associated with using vaping products from illicit sources but said the restrictions on regulated sales run counter to effective public health policy. [Read More](#) (Marijuana Business Daily)

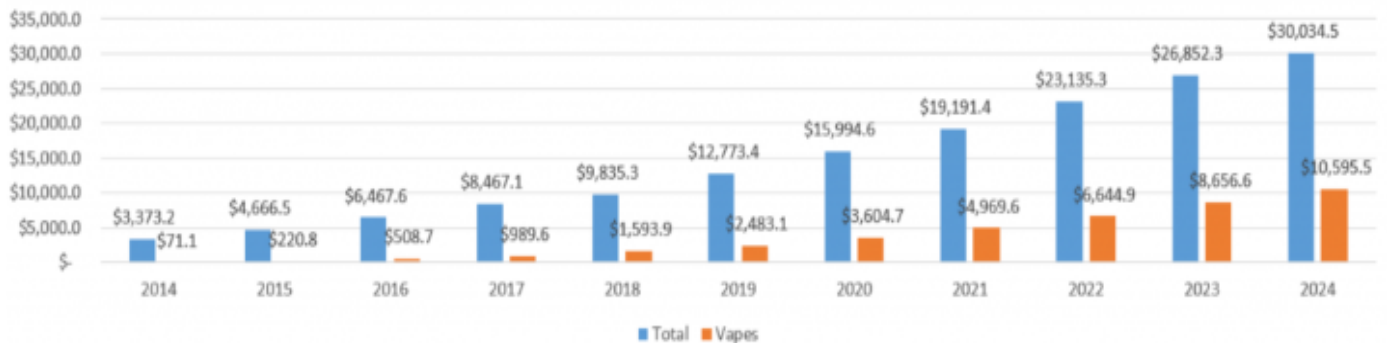
Canopy Growth: Cannabis 2.0 products will not be in stores until January 2020. [Canopy Growth \(CGC\)](#) announced that its cannabis 2.0 roll out will be delayed until early January 2020 at the earliest for most products. The company indicated it is a result of December 16 being the first day in which new product formats can be sold into its distribution channels. The result is that the company "expects that in most markets new products will not be seen on shelves until early in January 2020." [Read More](#) (the deep dive)

Officials list pot vape brands reported in U.S. outbreak. Health officials investigating a nationwide outbreak of vaping illnesses have listed, for the first time, the vape brands most commonly linked to hospitalizations. Most of the nearly 2,300 people who suffered lung damage had vaped liquids that contain THC, the high-inducing part of marijuana. In a report, the U.S. Centers for Disease Control and Prevention listed the products most often cited by patients, noting that some of them said they vaped more than one. Dank Vapes was the brand used by 56% of the hospitalized patients nationwide. Other product names at the top of the list from CDC were TKO (15%), Smart Cart (13%) and Rove (12%). [Read More](#) (AP News)

Massachusetts health officials admit lung patients may have used illicit vapes, too. State health officials conceded night that six Massachusetts patients suffering from probable cases of vaping-related lung illnesses may have used illicit marijuana vapes in addition to legal ones, a surprising revision from the day before when officials suggested products sold at licensed cannabis retailers were to blame for the ailments. [Read More](#) (Marijuana Retail Report)

Is the vape scare affecting the cannabis market? Just this past summer, as many as 47 patients in 25 states may have died from VAPI, vaping-associated pulmonary injury, filling newsstands with fear. But did that slow vape sales? Multiple reports recorded an initial dip after the news hit. Bloomberg reported that in Colorado, “Vape pens accounted for just 11% of total recreational cannabis sales as of Sept. 30, down from 19% in June.” But ultimately, data suggests that sales have settled down, showing an increase in market share in many legal states, even over flower. The vape sector looks like it’s still coasting and it would take a major iceberg, like legislative restriction or more illnesses, to sink it. BDS Analytics’ early October report projects an increase of more than a \$1 billion for vape sales in 2020 from this year, and a tripling of vape sales by 2023. [Read More](#) (Leafly)

Chart 13: U.S Cannabis & Vape Markets



Source: Intro-Blue, BDS Analytics, Leafly

CONSUMER AND SOCIAL TRENDS

The rise of cannabis spirituality. The line between spiritual development and pleasure may be thin, especially when it comes to weed. But recent years have seen the flowering of an elevated approach to cannabis consumption, which re-emphasizes its spiritual character. Cannabis has long been identified as an entheogen: A plant that can expand one’s consciousness and assist in spiritual growth. Hindu sadhus, Zoroastrians, and Rastafarians honor cannabis as a sacred tool. In Ayurveda, one of the world’s oldest holistic healing systems, cannabis is understood as a divine healing plant connected with Lord Shiva. [Read More](#) (Leafly)

As more pro athletes use cannabis for aches and pain, the more they run afoul of rules. With increasing numbers of states allowing recreational and medicinal cannabis use, and CBD oils, creams and tinctures sold in stores across the country and online, athletes of all types are testing the waters to see how the substance might fit into their regimens for training aches and pains. The retired and active big-name professionals who have declared their use of, or are involved with developing or promoting a business around cannabis, include former NFL players, mixed martial arts fighters, golfers, Olympic athletes, surfers and hockey players. [Read More](#) (Washington Post)

RETAIL

How are publicly-traded cannabis retailers faring? In a stock market for licensed producers that has dropped 32.1% so far this year, Canada’s cannabis retailers are a bright spot based on the sheer volume of sales revenue being generated by them. Cannabis Retailer explores four publicly-traded companies that own or operate legal retail cannabis stores across the country and look at some of their current vital signs. The retailers covered are:

- National Access Cannabis Corp (TSX-V: META)
- Inner Spirit Holdings (CSE: ISH)
- Choom (CSE: CHOO)
- Fire & Flower (TSX: FAF)

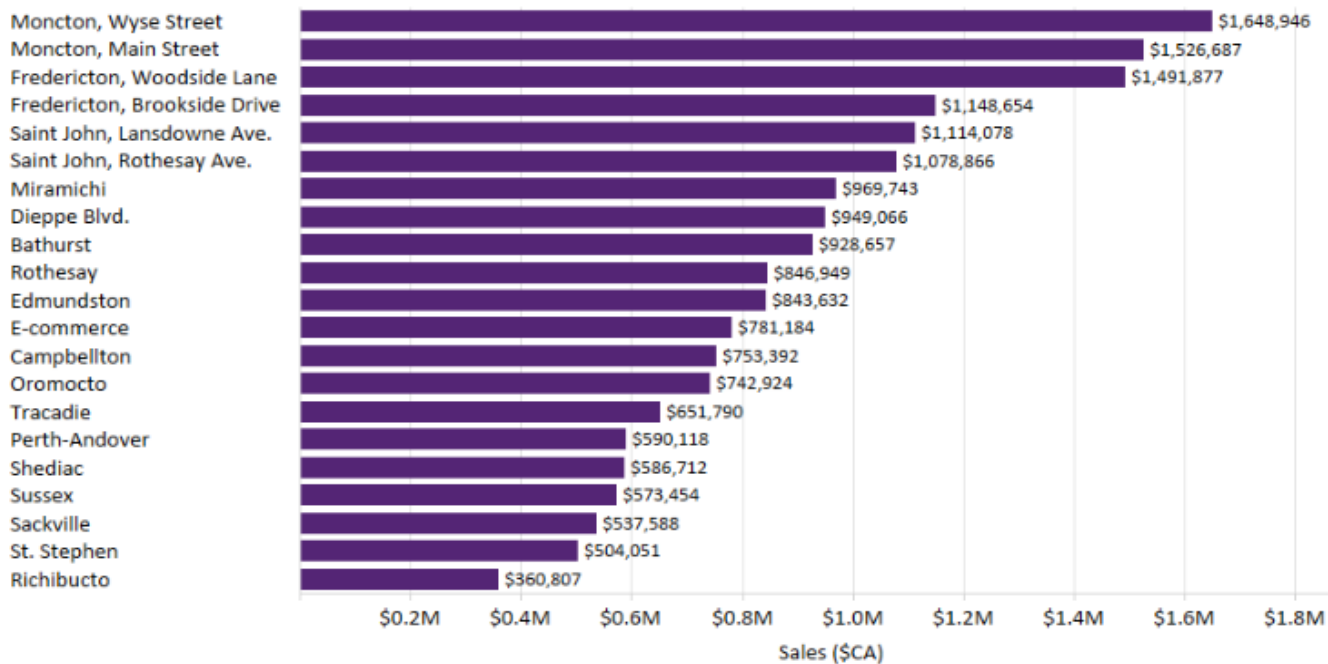
[Read More](#) (Cannabis Retailer)

Shoppers Drug Mart expands medical cannabis online sales to East Coast. Canadian pharmacy giant Shoppers Drug Mart has expanded its online medical cannabis platform to Canada’s East Coast. Residents of Nova Scotia, New Brunswick and Prince Edward Island can now go online on the company’s website to make their purchase, which will then be mailed to them. Residents who don’t currently have the proper medical documentation authorizing the use of medical cannabis can get it by setting up a consultation online. [Read More](#) (CBC)

Arkansas may revoke retailers’ inactive medical cannabis licenses. Arkansas may consider revoking medical marijuana licenses for dispensaries that aren’t open by June, officials said. Arkansas Alcoholic Beverage Control officials, who regulate the state’s budding cannabis industry, said they could begin taking action against inoperable dispensaries at the end of January, the Arkansas Democrat-Gazette reported. But a necessary rule is still being drafted and won’t be ready by then. Officials have said licenses may not be reissued when they are up for renewal in June. [Read More](#) (Marijuana Retail Report)

New Brunswick looks for cannabis retail reset as future of 20 established stores uncertain. New Brunswick aims to hit the reset button on how adult-use cannabis is sold, and the province might be willing to pull the plug on at least some of the 20 existing government-run stores under any new retail system. If a private company is chosen to run the new system, it will not be required to maintain all 20 outlets. That would mean a number of the stores face potential closure in 2020, little over a year after New Brunswick spent millions establishing the chain. [Read More](#) (Marijuana Business Daily)

Chart 14: Adult-Use Cannabis Sale in New Brunswick by Store



Source: Intro-Blue, Marijuana Business Daily

iAnthus Capital to open second facility, new dispensaries in Massachusetts. [iAnthus Capital Holdings \(ITHUF\)](#) has received state approval for its Mayflower Medicinals subsidiary to begin construction on an adult-use dispensary in Worcester, MA. The new dispensary, which is to follow iAnthus' new retail store concept, is expected to see construction completed in the first quarter of 2020, after which it will apply for final licensing. Two further adult-use dispensaries are expected to be added to iAnthus' Massachusetts portfolio before the end of 2020. [Read More](#) (the deep dive)

INTERNATIONAL

Brazilian court decision could encourage other cannabis companies to seek approval for cultivation. After Brazil's health authority shelved a proposal on domestic cannabis cultivation, a court decided in the opposite direction, allowing – for the first time in Brazil – a company to grow hemp commercially. The court's decision could spur other cannabis companies to appeal to the judicial system for permission to cultivate domestically. The ruling of the Federal Court of the Federal District authorized Schoenmaker Humanko, part of the Terra Viva group – a large Brazilian floricultural company – to import hempseeds of varieties with less than 0.3% THC to grow in Brazil. [Read More](#) (Marijuana Business Daily)

German court confirms CBD without 'novel' designation cannot be sold as food. The Gießen Administrative Court (VG Gießen) ruled that local authorities in Germany were right to not permit sales of CBD products that don't have a "novel food" authorization. The court's ruling confirmed an earlier decision by another German court. The European Union bestows the "novel food" designation to products that have not been significantly consumed before 1997. The appeal was made by a business in Vogelsbergkreis, Germany, after authorities ordered the company to recall its CBD food products and to quit selling them. [Read More](#) (Marijuana Business Daily)

Canadian cannabis cultivators spy opportunity in Europe. The European Union's nascent medical cannabis market is ready to expand with Canadian cannabis cultivators. New Frontier Data estimates that the potential European market for legal medical cannabis exceeds \$42bn. Currently, Europe does not cultivate enough cannabis to supply the existing and growing demand. In order to meet market needs for medical cannabis the EU must supplement locally produced cannabis with products from international sources. Canada, with its established international market, is in a prime position to become a principal supplier. Canadian cannabis companies have been rapidly increasing their global reach, tripling exports of medical cannabis from 500kg in 2017 to 1,460kg in 2018. [Read More](#) (Health Europa)

Chart 15: Canadian Cannabis Cultivators Spy Opportunity in Europe



Source: Intro-Blue, Health Europa

New Zealand's adult-use cannabis law would allow consumption lounges but impose cultivation limits. New Zealand has unveiled a draft law detailing the strict controls that would apply to recreational marijuana businesses and consumers if voters choose to legalize adult use in a 2020 referendum. The draft Cannabis Legalization and Control Bill would allow for a wide range of business opportunities, including those related to cultivation, manufacture and retail. However, the law would effectively ban online sales and advertising and authorize a regulatory body to establish limits on THC and cultivation. [Read More](#) (Marijuana Business Daily)

Israel rescinds moratorium on cannabis import and export, now what? Cannabis export from Israel has received the final government approval, after one year of waiting. The Israeli cannabis industry has been stymied for quite a while, mainly in part to U.S. President Trump asking the Prime Minister and de facto Minister of Health of Israel, Benjamin "Bibi" Netanyahu to halt the export of cannabis flower from Israel. While neither government provided an official explanation, and rumors abound over what President Trump specifically leveraged with BiBi to halt exportation of cannabis, Israeli industry watchers opine that influential Israeli-American billionaire Miriam Adelson is against cannabis legalization. [Read More](#) (Forbes)

CANNA SCIENCE – EXTRACTION, TESTING, BIOSYNTHESIS

Halo partners with DNA Genetics to launch world-renowned genetics in Oregon. Halo Labs (AGEEF) announced that it has signed a strategic partnership agreement with OG DNA Genetics Inc., one of the most awarded names in cannabis, to exclusively develop its genetics in Oregon through breeding, growing, phenotyping and processing. The initial term of the partnership agreement is five years with successive five-year renewals. [Read More](#) (Business Wire)

Psychedelics: The next wave for investors? Psilocybin, LSD and MDMA are being recommended as potential treatments for anxiety, depression and C/PTSD by a growing number of reputable institutions, with research indicating that these compounds could also have far-reaching effects for people struggling with substance abuse, smoking addiction or processing grief. The psychedelic-psychiatric breakthrough happens when you take one of these drugs, resulting in a dissolution of the ego, which can lead to a new perception of reality and one's place within it. [Read More](#) (Green Entrepreneur)

Water-soluble THC: Faster to activate, cleaner. The cannabis brownie has reigned supreme for decades. Its reputation as the ubiquitous representative of cannabis consumables went relatively unchallenged. Butter and fats seemed like the only way to contain the oil-soluble cannabinoids in cannabis. Pure Green hopes to change that. Naturally, the active cannabinoids in cannabis are oil soluble. As Stephen Goldner, CEO and Founder of Pure Green, explained in an interview with Cannabis Tech, "There are water-soluble molecules and oil-soluble molecules. There are lots of other ways to split up cannabis molecules. Some people say acidic versus activated. But cannabinoids are oil-soluble. That's why people put them in butter." [Read More](#) (Cannabis Tech)

Advances in whole plant cannabis extraction. Cannabis extracts are quickly becoming more popular across the legal cannabis market. As the product offering expands and the use of these products becomes more mainstream, focus is slowly shifting away from whether consumers might use these products, and towards the question of exactly which ones a consumer should choose. While some manufacturers are creating products with the purest CBD extract, or the most potent THC extract, others are taking a more holistic approach to extract making. [Read More](#) (Analytical Cannabis)

TECHNOLOGY

Is cannabis technology company MassRoots out of business? CEO insists no. Denver-based cannabis technology company MassRoots' website has been offline for a number of days, raising fresh questions about the financial health of a company that has been in turmoil since at least 2017. Isaac Dietrich, the company's founder and chief executive officer, maintained in an email to Marijuana Business Daily that the cannabis social networking pioneer is still in operation, despite some reports to the contrary. "Our website will be back online shortly," Dietrich wrote. "We recently encountered server issues that are in the process of being resolved." [Read More](#) (Marijuana Business Daily)

Eight lighting system design principles. A good lighting system will result in both higher yields and lower energy consumption. But what's good for one business may not be good for another—and a plethora of options can make selecting the right lighting system for your cannabis operation confusing. So, if you plan to rely on the recommendations of a lighting company, or if you want to start from scratch yourself, it's valuable to familiarize yourself with some basic lighting principles. Here are eight principles to get you started. [Read More](#) (Cannabis Business Times)

LEGAL

Burns & Levinson and Vicente Sederberg announce collaboration to provide one-stop legal services to the cannabis industry. Two of the country's leading cannabis law firms, Burns & Levinson and Vicente Sederberg LLP, are joining forces to offer the most comprehensive, best-in-class legal services to the cannabis industry. The first-of-its-kind nationwide collaboration will provide businesses, individuals and other clients with access to the specialized knowledge of each firm, as well as decades of combined cannabis industry experience. [Read More](#) (Vicente Sederberg)

SUSTAINABILITY

How marijuana firms can adopt environmentally friendly practices and avoid the greenwashing trap. At a time when society is crying out for businesses to show an environmental conscience, cannabis companies nationwide are searching for ways to do their part and keep their ecological footprints as small as possible. And that's no easy task considering that marijuana cultivation and manufacturing activities impact the air that we all breathe, entail massive use of energy and water and, of course, lead to waste production. But while many cannabis businesses truly are doing all they can to minimize their impact on the environment around them, many other companies in the industry are believed to be making green-practice claims that just aren't true. [Read More](#) (Marijuana Business Daily)

CANNA FACTS

Chart 16: European CBD Perceptions Vary by Region

	Ch/Aus Switzerland Austria	Benelux Belgium Netherlands Luxembourg	Swed/Den Sweden Denmark	UK/Ire The UK Ireland	Germany	Italy	Sp/Port Spain Portugal	France
Have heard of CBD	69%	69%	55%	78%	49%	52%	44%	36%
Have tried CBD	33%	25%	20%	14%	14%	11%	10%	7%
[Consumers] CBD positively affected quality of life	63%	76%	65%	74%	76%	85%	92%	67%
Agree with "CBD has valid medical uses"	62%	57%	50%	62%	59%	45%	53%	46%
[Purchasers] Generally satisfied with purchased CBD (agree)	65%	68%	49%	71%	67%	85%	69%	84%
[Non-users] Somewhat or very likely to try CBD if offered by trusted person	47%	42%	36%	38%	33%	35%	38%	27%



AT 33%, AUSTRIA/SWITZERLAND'S
CBD USAGE RATE IS NEARLY

5X

THAT SEEN IN FRANCE, AT 7%.

Source: Intro-Blue, New Frontier Data

CANNA CAPITAL MARKET TRENDS

Chart 17: Weekly Summary (Week 48 ending November 29, 2019)

Week 48 \$ Million	Capital Raises			M&A # of Deals
	# of Deals	\$ Raised	Avg. Size	
This Year	3	\$37.8	\$12.6	0
Last Year	10	\$201.1	\$20.1	9

Company	Public/Private	Ticker	Market	Sector	Segment	Amount Raised (\$ Millions)	Equity/Debt	Deal Type
Zenabis Global	Public	ZENA	TSXV	Cultivation & Retail	Touching the Plant	\$20.8	Equity	Rights Offering
Slang Worldwide	Public	SLGW	OTC	Cultivation & Retail	Touching the Plant	\$15.0	Equity	Private Placement
Puro	Private	-	-	Cultivation & Retail	Touching the Plant	\$2.0	Equity	Crowdfunding

Chart 18: Cannabis Capital Raises by Week

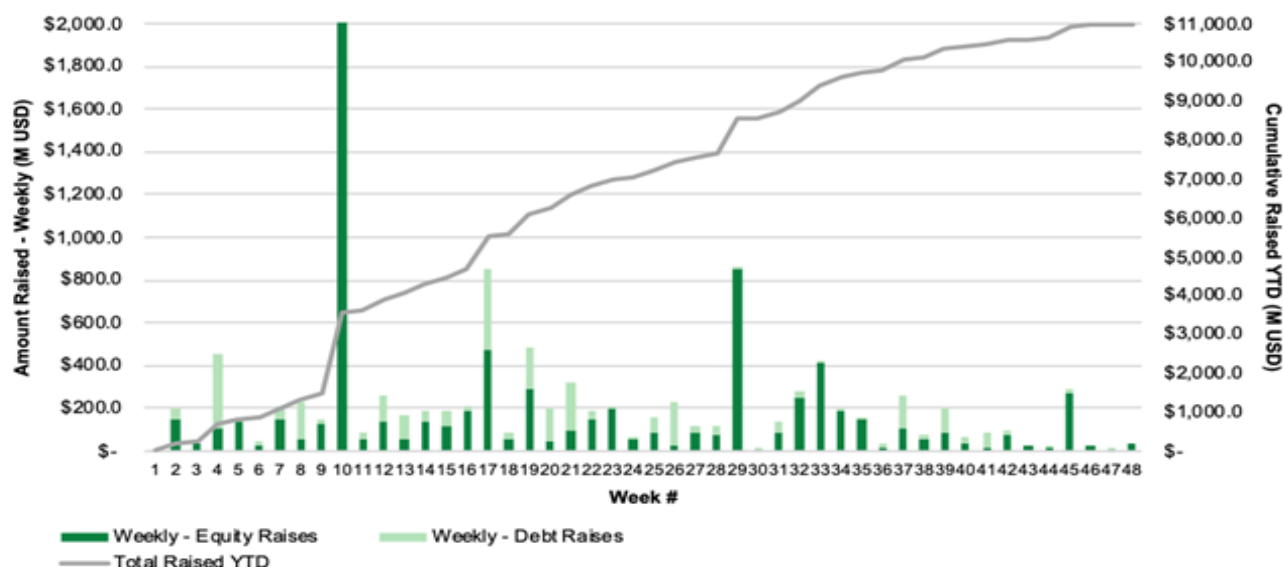
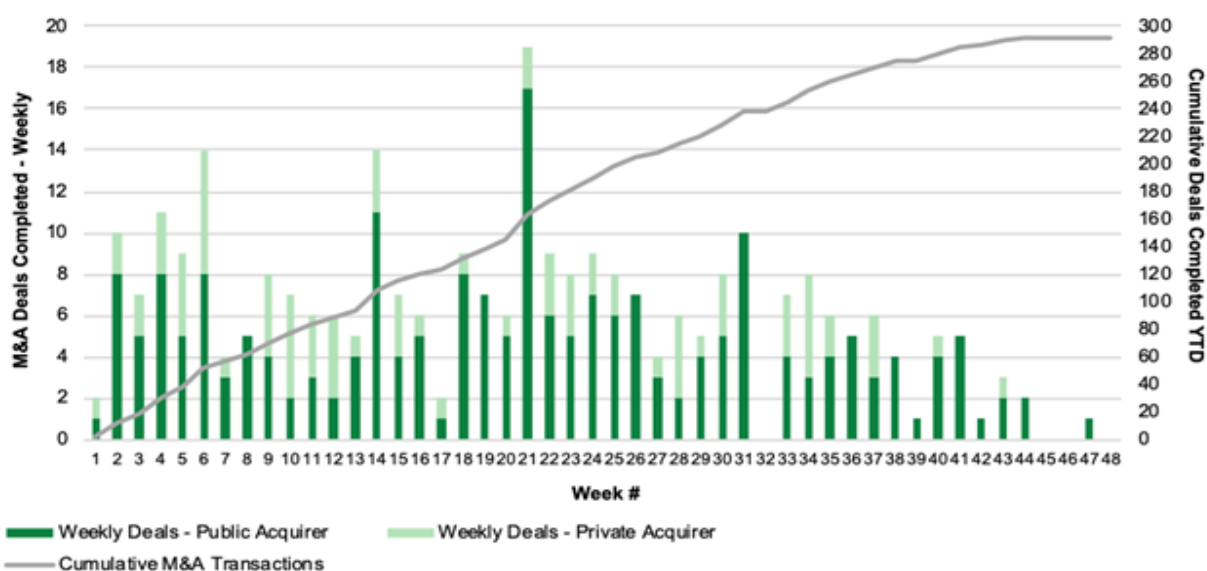


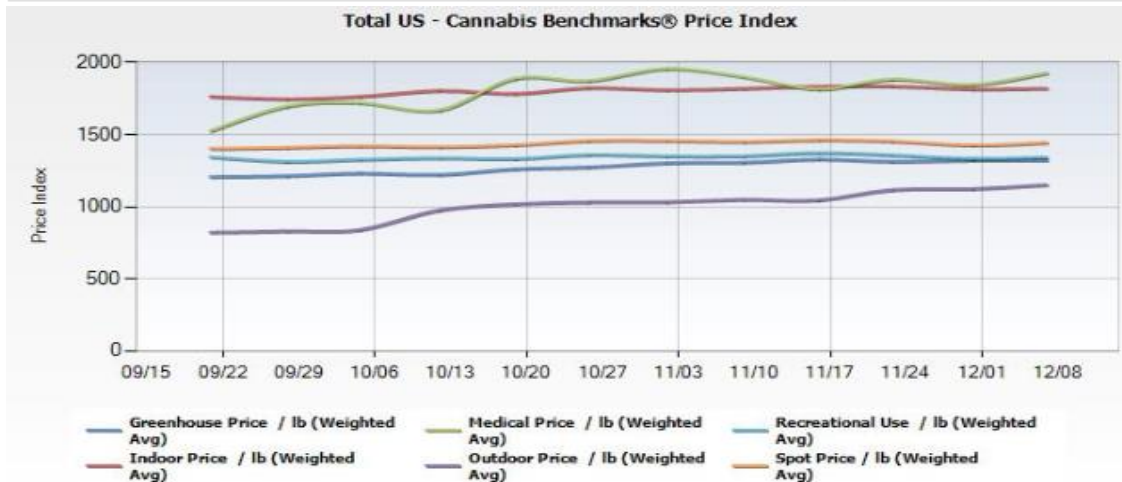
Chart 19: Cannabis M&A Activity by Week



CANNA PRICES – WEEKLY TREND

Chart 20: U.S. Cannabis Market Prices

Commodity	December 6	November 30	\$ Change	% Change
Spot Price / lb (Weighted Avg)	\$1,446.00	\$1,428.00	\$18.00	1.3 %
Indoor Price / lb (Weighted Avg)	\$1,822.00	\$1,817.00	\$5.00	0.3 %
Greenhouse Price / lb (Weighted Avg)	\$1,325.00	\$1,324.00	\$1.00	0.1 %
Outdoor Price / lb (Weighted Avg)	\$1,154.00	\$1,126.00	\$28.00	2.5 %
Medical Price / lb (Weighted Avg)	\$1,928.00	\$1,847.00	\$81.00	4.4 %
Recreational Use / lb (Weighted Avg)	\$1,345.00	\$1,336.00	\$9.00	0.7 %



Source: Intro-Blue, Cannabis Benchmarks Price Index

Chart 21: U.S. Implied Forward Prices (Week Ending December 6, 2019)

Delivery Month	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
This Week's Forward Price	\$ 1,475	\$ 1,475	\$ 1,475	\$ 1,435	\$ 1,455	\$ 1,455
Last Week's Forward Price	\$ 1,475	\$ 1,475	\$ 1,475	\$ 1,435	\$ 1,455	n/a
Change	\$ -	\$ -	\$ -	\$ -	\$ -	n/a
Premium/Discount to Spot	2.0%	2.0%	2.0%	-0.8%	0.6%	0.6%

Source: Intro-Blue, Cannabis Benchmarks Price Index










Chart 22: Canada Cannabis Spot Index



Source: Intro-Blue, Cannabis Benchmarks Price Index











CANNA BRANDS AND PRODUCTS RANKING – STATE IN FOCUS: CALIFORNIA

Chart 23: Best-Selling Flower Brands and Products in California

	BRAND	PRODUCT	AVG. PRICE	SALES (30 DAY)
1		Banjo (Eighth) PACIFIC STONE	\$17.46	
2		Glue (Eighth) PACIFIC STONE	\$17.26	
3		Purple Punch (Eighth) CYPRESS CANNABIS	\$27.01	
4		Zkittlez (Eighth) DIME BAG	\$22.67	
5		Quest (Eighth) SOURCE CANNABIS FARMS	\$44.64	

Source: Intro-Blue, Headset

Chart 24: Best-Selling Concentrates Brands and Products in California

	BRAND	PRODUCT	AVG. PRICE	SALES (30 DAY)
1		Strawberry Banana Shatter (Half Gram) FLAVOR	\$11.79	
2		Kushberry Cheesecake Shatter (Gram) LOS ANGELES KUSH	\$22.57	
3		Strawberry Banana Crumble (Half Gram) FLAVOR	\$12.32	
4		Dosi Punch Shatter (Half Gram) FLAVOR	\$11.86	
5		Tangieland Live Resin (Gram) FUN UNCLE	\$19.81	

Source: Intro-Blue, Headset

Chart 25: Best-Selling Vapor Pens Brands and Products in California

	BRAND	PRODUCT	AVG. PRICE	SALES (30 DAY)
1		Elite - Maui Wowie Cartridge (Gram) SELECT	\$50.09	
2		Diablo OG Cartridge (Gram) HEAVY HITTERS	\$52.40	
3		Blue Dream Cartridge (Gram) ABX / ABSOLUTEXTRACTS	\$41.35	
4		Jack Herer Cartridge (Gram) SELECT	\$48.60	
5		Citron Tree Cartridge (Gram) RAW GARDEN	\$48.89	











Source: Intro-Blue, Headset

Chart 26: Best-Selling Beverage Brands and Products in California

	BRAND	PRODUCT	AVG. PRICE	SALES (30 DAY)
1		CBD:THC 5:5 Hi-Fi Hops (5mg CBD, 5mg THC) LAGUNITAS BREWING COMPANY	\$7.18	
2		Kwik Zzz's - Kush Berry (100mg) MANZANITA NATURALS	\$12.03	
3		Kwik Ease - Pineapple Express (100mg) MANZANITA NATURALS	\$11.51	
4		Tranquili - Tea (5mg CBN, 3mg THC) KIKOKO	\$10.69	
5		Sympa - Tea (20mg CBD, 3mg THC) KIKOKO	\$9.25	

Source: Intro-Blue, Headset

Chart 27: Best-Selling Tincture & Sublingual Brands and Products in California

	BRAND	PRODUCT	AVG. PRICE	SALES (30 DAY)
1		CBD:THC 30:1 Releaf Tincture (435mg CBD, 15mg THC, 15ml, 0.5oz) PAPA & BARKLEY	\$48.58	
2		CBD:THC 18:1 Sublingual Drops (270mg CBD, 15mg THC, 15ml) CARE BY DESIGN	\$40.51	
3		Sleepy Time Sublingual Drops (450mg, 15ml) ABX / ABSOLUTEXTRACTS	\$36.25	
4		CBD:THC 1:1 Sublingual Drops (240mg CBD, 240mg THC, 15ml) CARE BY DESIGN	\$40.59	
5		CBD:THC 1:3 Releaf Tincture (112.5mg CBD, 337.5mg THC, 15ml) PAPA & BARKLEY	\$50.57	

Source: Intro-Blue, Headset

Chart 28: Best-Selling Capsules Brands and Products in California

	BRAND	PRODUCT	AVG. PRICE	SALES (30 DAY)
1		Soft Gels 10-Pack (1000mg) ABX / ABSOLUTEXTRACTS	\$52.45	
2		Soft Gels 30-Pack (300mg) ABX / ABSOLUTEXTRACTS	\$33.98	
3		Liquid Dreams - Indica Capsules 2-Pack (100mg) DAY DREAMERS / LIQUID DREAMS	\$5.13	
4		Soft Gels 30-Pack (750mg) ABX / ABSOLUTEXTRACTS	\$69.12	
5		Liquid Dreams - Sativa Capsules 2-Pack (100mg) DAY DREAMERS / LIQUID DREAMS	\$5.09	

Source: Intro-Blue, Headset

CANNA EVENTS CALENDAR

Chart 29: Cannabis Company Events Calendar – Upcoming Conference Calls

Date	Company	Ticker	Web Access	Phone Dial-In
12/11/19 - 9:00 A.M. ET	EnWave	(TSXV:ENW)	Webcast	1-877-407-2988
12/13/19 - 4:15 P.M. ET	Veritas Farms	(OTC:VFRM)		1-888-567-1602
12/16/19 - 8:30 A.M. ET	HEXO Corp	(TSX: HEXO)/(NYSE: HEXO)	Webcast	1-888-390-0541 passcode 157917
12/17/19 - 8:30 A.M. ET	Fire & Flower	(TSX: FAF)/(OTC: FFLWF)	Webcast	1-888-664-6383 passcode 87723481

Source: Intro-Blue, New Cannabis Ventures

Chart 30: Cannabis Company Events Calendar – Recent Conference Calls

Date	Company	Ticker	Replay
12/03/19 - 4:30 P.M. ET	Akerna	(NASDAQ: KERN)	Webcast
12/02/19 - 9:00 A.M. ET	4Front	(CSE: FFNT)/(OTC: FFNTF)	1-844-512-2921 passcode 13696657
12/02/19 - 8:30 A.M. ET	Indus Holdings	(CSE:INDS)/(OTC: INDXF)	Webcast
12/02/19 - 8:30 A.M. ET	PLUS Products	(CSE: PLUS)/(OTC: PLPRF)	Webcast
11/29/19 - 1:00 P.M. ET	WeedMD	(TSX-V:WMD)/(OTC:WDDMF)	1-800-319-6413 passcode 3858
11/29/19 - 9:00 A.M. ET	Lift & Co.	(TSXV: LIFT)/(OTC: LFCOF)	Webcast
11/27/19 - 11:00 A.M. ET	Sunniva	(CSE: SNN)/(OTC: SNNVF)	Webcast
11/27/19 - 8:30 A.M. ET	Flower One	(CSE: FONE)/(OTC: FLOOF)	Webcast
11/27/19 - 8:30 P.M. ET	Vireo Health	(CNSX: VREO)/(OTC: VREOF)	Webcast
11/26/19 - 6:00 P.M. ET	Origin House	(CSE: OH)/(OTC: ORHOF)	Webcast
11/26/19 - 6:00 P.M. ET	Cresco Labs	(CSE: CL)/(OTC: CRLBF)	Webcast
11/26/19 - 5:30 P.M. ET	Flowr	(TSXV: FLWR)/(OTC: FLWPF)	Webcast
11/26/19 - 5:00 P.M. ET	MedMen	(CSE: MMEN)/(OTC: MMNFF)	Webcast
11/26/19 - 12:00 P.M. ET	Golden Leaf Holdings	(CSE:GLH)/(OTC:GLDFF)	Webcast
11/26/19 - 10:00 A.M. ET	SLANG Worldwide	(CNSX: SLNG)/(OTC: SLGWF)	Webcast
11/26/19 - 9:00 A.M. ET	Indus Holdings	(CSE:INDS)/(OTC: INDXF)	Webcast
11/26/19 - 8:30 A.M. ET	Biome Grow	(CSE: BIO)/(OTC: BIOIF)	Webcast
11/26/19 - 8:30 A.M. ET	Planet 13	(CSE: PLTH)/(OTC: PLNHF)	Webcast
11/26/19 - 8:30 A.M. ET	Green Growth Brands	(CSE: GGB)/(OTC: GGBXF)	Webcast
11/26/19 - 8:30 A.M. ET	48North	(TSX: NRTH)	1-888-231-8192 passcode 8672507
11/25/19 - 5:00 P.M. ET	PharmaCielo	(TSXV:PCLO)/(OTC:PCLOF)	Webcast
11/25/19 - 10:00 A.M. ET	MJardin Group	(CSE: MJAR)/(OTC: MJARF)	Webcast
11/25/19 - 8:00 A.M. ET	Organigram	(TSX: OGI)/(NASDAQ: OGI)	Webcast
11/22/19 - 11:00 A.M. ET	Harborside	(CSE: HBOR)	Webcast
11/21/19 - 10:00 A.M. ET	Abacus Health Products	(CSE: ABCS)/(OTC: ABAHF)	1-855-859-2056 passcode 3343986
11/21/19 - 8:30 A.M. ET	iAnthus	(CSE: IAN)/(OTC: ITHUF)	Webcast
11/20/19 - 5:00 P.M. ET	TILT Holdings	(CSE: TILT)/(OTC: TLLTF)	Webcast
11/20/19 - 5:00 P.M. ET	Green Thumb Industries	(CSE: GTII)/(OTC: GTBIF)	Webcast

11/20/19 - 4:00 P.M. ET	Surna	(OTC: SRNA)	Webcast
11/20/19 - 8:00 A.M. ET	Harvest Health & Recreation	(CSE: HARV)/(OTC: HRVSF)	Webcast
11/19/19 - 5:00 P.M. ET	Curaleaf	(CSE: CURA)/(OTC: CURLF)	Webcast
11/19/19 - 9:00 A.M. ET	3 Sixty Risk Solutions Ltd.	(CSE: SAFE)/(OTC: SAYFF)	1-888-390-0541 passcode 120171
11/19/19 - 8:30 A.M. ET	Ayr Strategies	(CSE: AYR.A)/(OTC: AYRSF)	Webcast
11/19/19 - 8:00 A.M. ET	Trulieve	(CSE: TRUL)/(OTC: TCNNF)	Webcast
11/15/19 - 12:00 PM ET	Alcanna	(TSX: CLIQ)/(OTC: LQSIF)	1-800-408-3053 passcode 5420415
11/15/19 - 10:00 A.M. ET	VIVO Cannabis	(TSX-V: VIVO)/(OTC: VVCIF)	Webcast
11/15/19 - 9:00 A.M. ET	The Green Organic Dutchman Holdings	(TSX: TGOD)/(OTC: TGODF)	Webcast
11/15/19 - 9:00 A.M. ET	Halo Labs	(NEO: HALO)/(OTC: AGEEF)	1-866-211-3166 passcode 9063097
11/15/19 - 8:30 A.M. ET	Jushi Holdings	(NEO: JUSH.B)/(OTC: JUSHF)	Webcast
11/15/19 - 8:30 A.M. ET	Village Farms International	(TSX:VFF)/(NASDAQ:VFF)	Webcast
11/14/19 - 6:00 P.M. ET	Aurora Cannabis	(NYSE TSX: ACB)	Webcast

Source: Intro-Blue, New Cannabis Ventures

Chart 31: Cannabis IPO Pipeline

S. No	Company	Filing	Market	Description
1	AAA Medic Montreal	SEDAR	TSX-V	Quebec ACMPR Applicant
2	Blackshire Capital	SEDAR	CSE	Invests in Private Cannabis Companies
3	Breath of Life International	SEDAR	TSX	Israeli Licensed Medical Cannabis Producer
4	CWE European Holdings	SEDAR	TSX-V	German Hemp Operator
5	HollyWeed North Cannabis	SEDAR	TSX-V	Canadian LP Focused on Processing & Ancillary Solutions
6	Innovate Phytotechnologies	SEDAR	CSE	Canadian Hemp Services Provider and ACMPR Applicant
7	Lifted Innovations	SEDAR	CSE	Cannabis accessories e-commerce company in U.S. and Canada
8	Lobo Genetics	SEDAR	TSX-V	Genetics Testing for Cannabis Consumers
9	ManifestSeven	SEDAR	CSE	California Retail and Distribution
10	Merced Holdings	SEDAR	CSE	California Extraction
11	Merrco Payments	SEDAR	TSX-V	Canadian Payments Processor Focused on Cannabis
12	Molecular Science	SEDAR	TSX-V	Canadian Mobile Lab for Testing and Research
13	Mota Ventures	SEDAR	CSE	Colombian Licensed Producer
14	OG DNA Genetics	SEDAR	CSE	Seeds and Genetics
15	Potbotics	SEDAR	CSE	U.S.-Based Data Aggregation and Technology
16	Province Brands	SEDAR	TSX-V	Canadian Developer of Cannabis Beverages
17	Southern Sun	SEDAR	TSX-V	Canadian Company Focused on Africa
18	Starling Brands	SEDAR	CSE	California Cannabis Operator
19	Terrace. Inc	SEDAR	TSX-V	Multi-Country Operator in Spain and Entering Uruguay and Portugal
20	The Hacienda Company	SEDAR	CSE	California Cannabis Brand Owner
21	Theracann International Benchmark	SEDAR	TSX-V	Panama-Based Provider of Technology, Operations and Analytics
22	Varianz	SEDAR	TSX-V	Colombian Applicant

Source: Intro-Blue, New Cannabis Ventures

Chart 32: Cannabis Industry Events Calendar

S. No	Event Name	Place	Date
1	MJBizCon	LAS VEGAS, NV	December 11 -13, 2019
2	Cannabis & Hemp Extraction: Process selection and regulation	WEBINAR	December 12, 2019
3	December 2019 CannaGather	NEW YORK, NY	December 17, 2019
4	Cannabis Dealmakers Summit: Entrepreneurship Summit & Expo	MIAMI, FL	January 8, 2020
5	Lift & Co Cannabis Expo	VANCOUVER, BC	January 9 - 11, 2020
6	Midwest iHemp Expo	LANSING, MI	January 10 - 11, 2020
7	The Headies: Vermont Growers Cup	ESSEX, VT	January 11, 2020
8	NCIA Washington Industry Social	SEATTLE, WA	January 14, 2020
9	NCIA Arizona Industry Social	PHOENIX, AZ	January 14, 2020
10	NCIA Nevada Industry Social	LAS VEGAS, NV	January 14, 2020
11	NCIA Oregon Industry Social	EUGENE, OR	January 15, 2020
12	NCIA Northern California Industry Social	SAN JOSE, CA	January 16, 2020
13	Winter Hemp Summit 2020	BOULDER, CO	January 16, 2020
14	HempWorld Expo & National Vape Expo	ATLANTA, GA	January 18 - 19, 2020
15	NCIA Utah Industry Social	SALT LAKE CITY, UT	January 21, 2020
16	NCIA Florida Industry Social	FT. LAUDERDALE, FL	January 21, 2020
17	CannaTech Davos 2020	SWITZERLAND	January 20 - 24, 2020
18	NCIA Texas Industry Social	DALLAS, TX	January 22, 2020
19	NCIA Missouri Industry Social	KANSAS CITY, MO	January 22, 2020
20	Canna West	LOS ANGELES, CA	January 22 - 24, 2020
21	NCIA Southern California Industry Social	IRVINE, CA	January 23, 2020
22	The American Conference on Controversies on Cannabis-Based Medicine	ORLANDO, FL	January 23 - 24, 2020
23	Texas Hemp Convention	DALLAS, TX	January 28 - 30, 2020
24	Hemp CBD Connex	PORTLAND, OR	January 29 - 30, 2020
25	Cannabis Europa	MADRID, ES	February 5, 2020
26	Cannabis Packaging Summit	ANAHEIM, CA	February 11 - 12, 2020
27	Seed to Sale Show	BOSTON, MA	February 18 - 19, 2020
28	Northeast Cannabis Business Conference	BOSTON, MA	February 19 - 20, 2020
29	Indoor Agriculture Energy Solutions (IAES) Conference	SAN DIEGO, CA	February 24 - 26, 2020
30	Women Grow Strong	NEW ORLEANS, LA	March 4 - 6, 2020
31	Cannabis Meets Healthcare	NEW ORLEANS, LA	March 4 - 6, 2020
32	The 6th Annual New England Cannabis Convention	BOSTON, MA	March 20 - 22, 2020
33	Oklahoma Cannabis Expo	OKLAHOMA	March 23 - 24, 2020
34	Cannabis 2020: Pros & Cons	NEW YORK, NY	April 3, 2020
35	NECANN New England Cannabis Convention	CHICAGO, IL	April 3 - 4, 2020
36	Cannabis Business Asia 2020	THAILAND	April 7 - 8, 2020
37	The Cannabis Consumer & Business Expo	MONTREAL, QC	April 10 - 12, 2020
38	Women in Cannabis Summit	BURLINGTON, VT	April 11, 2020
39	Cannabis Conference 2020	LAS VEGAS, NV	April 21 - 23, 2020
40	CBD Senior Health and Well-Being Expo	NEWTON, MA	April 24 - 25, 2020
41	Cannabis Business France 2020	PARIS, FRANCE	May 5 - 6, 2020
42	10th Annual Cannabis Industry Lobby Days	WASHINGTON, D.C.	May 19 - 21, 2020
43	NECANN Cannabis & Hemp Convention	BURLINGTON, VT	May 30 - 31, 2020
44	MJBizConNEXT Executive Summit	NEW ORLEANS, LA	June 11 - 12, 2020
45	Cannabis Business Summit & Expo	SAN FRANCISCO, CA	June 15 - 17, 2020
46	NECANN Cannabis & Hemp Convention	SPRINGFIELD, MA	June 20 - 21, 2020
47	Cannabis Business Poland 2020	WARSAW, PL	July 1 - 2, 2020
48	Great Alaskan Cannabis Bowl	WASILLA, AK	July 24 - 26, 2020
49	Be Part Of The New Cannabis Drinks Category	SAN FRANCISCO, CA	July 30, 2020
50	Cannabis Drinks Expo Chicago	NORTHLAKE, IL	August 3, 2020
51	Midwest Cannabis Business Conference	DETROIT, MI	August 26 - 27, 2020

52	CannaOne BizCon + Expo	LAS VEGAS, NV	August 26 - 28, 2020
53	NECANN Cannabis & Hemp Convention	ATLANTIC CITY, NJ	September 11 - 12, 2020
54	NECANN Cannabis & Hemp Convention	PORTLAND, ME	October 10 - 11, 2020
55	Michigan's Commercial Cannabis Conference & Expo	DETROIT, MI	October 16 - 17, 2020
56	2nd Medical Cannabis Patient Therapies and Wellness Summit	WORCESTER, MA	November 6 - 7, 2020

Source: Intro-Blue, Cannabis Business Times, CannabisFN, Cannabis Business Executive

CANNA INDEX

Chart 33: U.S Cannabis Index

Constituents	25
% Change	0.78%
Open Price	48.97
Total Volume	9.04 m
52 Week High	137.07
52 Week Low	48.79



Source: Intro-Blue, The Marijuana Index

Chart 34: Canada Cannabis Index

Constituents	20
% Change	1.14%
Open Price	208.63
Total Volume	20.81 m
52 Week High	727.25
52 Week Low	195.73



Source: Intro-Blue, The Marijuana Index

COMPARABLES & COMPANY PROFILE LINKS

						Shares		Price Performance			
						Daily Out	Vol	% to		% in	
								High	Low	Range	H-L % YTD
Peer Set											
Canadian LP - Cultivation, Processing (and Dispensing)											
1	CANOPY GROWTH CORP	CGC	18.98	6,616	5,284	349	1.4%	178%	-27%	13%	-29%
2	AURORA CANNABIS INC	ACB	2.47	2,595	3,017	1,051	1.7%	318%	-13%	4%	-50%
3	CRONOS GROUP INC	CRON	6.88	2,365	868	344	1.6%	265%	-12%	4%	-34%
4	HEXO CORP	HEXO	2.16	555	458	257	1.3%	289%	-28%	9%	-37%
5	SUNDIAL GROWERS INC.	SNDL	2.30	237	285	103	0.9%	475%	-6%	1%	
6	TERRASCEND CORP	TRSSF	2.41	128	370	128	0.0%	191%	-1%	0%	-77%
7	SUPREME CANNABIS CO INC	SPRWF	0.50	176	216	354	0.1%	261%	-13%	5%	-48%
8	FLOWR CORP (THE)	FLWPF	1.71	114	128	67	0.1%	268%	-22%	8%	-44%
9	ZENABIS GLOBAL INC	ZBISF	0.14	49	133	348	0.1%	1625%	-89%	5%	
10	GREEN ORGNC DUTCHMN HLD	TGODF	0.63	174	128	276	0.4%	595%	-26%	4%	-65%
11	HERITAGE CANNABIS HLDGS CORP	HERTF	0.20	84	74	425	0.0%	175%	-45%	20%	76%
12	RUBICON ORGANICS INC	ROMJF	1.08	43	50	40	0.0%	142%	-7%	5%	-17%
13	AGRAFLORA ORGANICS INTL INC	PUFXF	0.13	118	133	930	0.1%	404%	-29%	7%	-24%
14	DELTA 9 CANNABIS INC	VRNDF	0.32	29	43	88	0.1%	335%	-11%	3%	-64%
15	VIVO CANNABIS INC	VVCIF	0.18	49	32	278	0.0%	422%	-6%	1%	-65%
16	EPHS HOLDINGS, INC.	STNN	0.36	27	28	74	0.0%	450%	-17%	4%	-76%
17	EVE & CO INC	EEVVF	0.13	31	27	241	0.0%	284%	-23%	8%	-25%
18	SPROUTLY CANADA INC	SRUTF	0.15	35	25	162	0.1%	459%	-1%	0%	-29%
19	JAMES E. WGNR CLTIVION CORP	JWCAF	0.21	19	22	91	0.0%	355%	-14%	4%	-59%
20	GTEC HOLDINGS LTD	GGTTF	0.14	16	21	113	0.0%	321%	-16%	5%	-60%
21	BELEAVE INC	BLEVF	0.03	15	22	419	0.2%	305%	-52%	15%	-54%
22	TERRANUEVA CORP.	TEQ-CA	0.21	13	15	63	0.0%	519%	-82%	14%	-55%
23	48NORTH CANNABIS CORP	NCNNF	0.25	44	14	176	0.0%	419%	-20%	5%	-40%
24	SUGARBUD CRAFT GROWERS CORP	SUGR-CA	0.05	18	12	229	0.3%	334%	-13%	4%	67%

25	LOTUS VENTURES INC	LTTSF	0.11	9	9	83	0.0%	236%	-36%	13%	57%
26	INDIVA LTD	NDVAF	0.16	10	14	65	0.0%	203%	-29%	12%	-45%
27	GROWN ROGUE INTL INC	NVSIF	0.10	7	9	72	0.0%	488%	-48%	9%	-65%
28	NORTH BUD FARMS INC	NOBDF	0.14	9	8	63	0.0%	168%	-8%	5%	-15%
29	MATICA ENTERPRISES INC	MQPXF	0.02	8	5	315	0.0%	400%	-17%	4%	-62%
30	EXPERION HOLDINGS LTD	EXPFF	0.10	9	4	99	0.0%	530%	-79%	13%	-76%
31	LEANLIFE HEALTH INC	LNLHF	0.03	3				58%	0%	0%	
32	BLISSCO CANNABIS CORP	BLIS-CA				107	0.0%				
33	SPEAKEASY CANNABIS CLUB LTD	EASY-CA	0.32	0		87	0.0%	188%	-56%	23%	-100%
CBD/Hemp											
34	CHARLOTTE'S WEB HLDGS INC	CWBHF	9.14	484	880	98	0.9%	176%	-9%	5%	-55%
35	CV SCIENCES INC	CVSI	1.05	104	100	99	0.9%	528%	5%	-1%	-76%
36	BETTER CHOICE COMPANY INC.	BTTR	2.50	114	122	45	0.0%	430%	-48%	10%	-78%
37	ELIXINOL GLOBAL LTD	ELLXF	0.68	93	63	138	0.0%	529%	-5%	1%	-63%
38	CBDMD INC (LEVEL BRANDS)	YCBD	3.03	84	70	28	0.8%	139%	-16%	10%	-2%
39	GREEN HYGIENICS HOLDINGS INC.	GRYN	2.00	75	76	37	0.0%	24%	-95%	80%	515%
40	VERITAS FARMS INC	SSWH	1.40	58	53	41	0.1%	554%	-29%	5%	6%
41	UPPER STREET MARKETING INC.	UPPR	0.30	24	24	80	0.0%	641%	-83%	12%	-12%
42	EUREKA 93	LXLLF	0.38	28	39	74	0.0%	4197%	-96%	2%	-95%
43	CBD UNLIMITED, INC.	EDXC	0.09	24	27	262	0.2%	705%	-57%	7%	87%
44	FREEDOM LEAF, INC.	FRLF	0.08	48	27	311	0.0%	288%	-31%	10%	-30%
45	KONA GOLD SOLUTIONS, INC.	KGKG	0.04	22	22	497	1.6%	243%	-8%	3%	-48%
46	ALTERNATE HEALTH CORP	AHGIF	0.08	7	22	78	0.1%	644%	2%	0%	-75%
47	EXACTUS, INC.	EXDI	0.59	24	26	41	0.1%	578%	-92%	14%	290%
48	HEMP INC	HEMP	0.01	3	18	274	6.2%	414%	-5%	1%	-72%
49	KALYTERA THERAPEUTICS	KALTF	0.03	15	16	510	0.0%	194%	-48%	20%	-37%
50	NEWLEAF BRANDS INC	NWGFF	0.25	8	8	33	0.0%	1097%	-16%	1%	-87%
51	NATURALLY SPLENDID ENTPRS	NSPDF	0.06	7	8	133	0.0%	179%	-13%	7%	-45%
52	APPLIED BIOSCIENCES CORP	APPB	0.40	5	7	14	0.0%	460%	-25%	5%	-68%

53	WEEKEND UNLIMITED INC.	WKULF	0.02	8	8	405	0.0%	1653%	-6%	0%	
54	EARTH SCIENCE TECH INC	ETST	0.13	7	7	53	0.1%	684%	-25%	3%	-84%
55	ISODIOL INTERNATIONAL INC	ISOLF	0.13	5	7	42	0.0%	1224%	-11%	1%	-86%
56	MAPLE LEAF GREEN WORLD INC	MGWFF	0.03	5	6	149	0.0%	877%	-21%	2%	-69%
57	GLOBAL HEMP GROUP INC	GBHPF	0.03	5	5	188	0.1%	492%	-23%	4%	-74%
58	EMPOWER CLINICS INC	EPWCF	0.03	4	6	137	0.0%	520%	-51%	9%	-61%
59	PHIVIDA HLDGS INC	PHVAF	0.09	8	2	89	0.0%	740%	-13%	2%	-77%
60	EASTWEST BIOSCIENCE INC	EAST-CA	0.03	1	3	51	0.0%	497%	-42%	8%	-75%
61	REVIVE THERAPEUTICS LTD	RVVTF	0.03	2	2	72	0.0%	417%	-62%	13%	-63%
62	EVIANA HEALTH CORP	EVNNF	0.04	1	1	24	0.0%	1202%	-31%	3%	-94%
63	GRIDIRON BIONUTRIENTS INC	GMVP	0.01	1	1	135	0.0%	1530%	-76%	5%	-86%
64	CBD OF DENVER INC.	CBDD	0.00	0	0	84	4.9%	1067%	0%	0%	-82%
65	HEMPCO FOOD & FIBER INC	HMPPF				62	0.0%				
66	ABACUS HEALTH PRODUCTS, INC.	ABCS-CA	4.74	0		22	0.3%	186%	-34%	16%	
Diversified											
67	ALTRIA GROUP INC	MO	50.10	93,593	120,022	1,868	0.5%	16%	-22%	58%	1%
68	CONSTELLATION BRANDS	STZ	184.49	30,902	48,692	189	0.4%	16%	-18%	53%	15%
69	PYXUS INTERNATIONAL, INC.	PYX	7.90	72	1,429	9	2.3%	314%	-6%	2%	-33%
70	AUXLY CANNABIS GROUP INC	CBWTF	0.48	294	299	618	0.1%	73%	-7%	8%	-28%
71	GREEN GROWTH BRANDS	GGBXF	0.88	181	194	238	0.1%	491%	-16%	3%	-78%
72	MJARDIN GROUP INC	MJARF	0.15	10	143	62	0.3%	3576%	17%	0%	-96%
73	MPX INTL. CORPORATION	MPXOF	0.32	43	43	135	0.0%	99%	-87%	47%	
74	1933 INDUSTRIES INC	TGIFF	0.16	43	47	261	0.1%	180%	-10%	5%	-35%
75	WEED, INC	BUDZ	0.38	41	42	108	0.1%	492%	-20%	4%	-64%
76	STEM HLDGS INC	STMH	0.92	36	35	40	0.0%	226%	-13%	5%	-54%
77	AMERICAN CANNABIS INNOVATIONS CONGLOMERATED	PURA	0.04	26	27	595	0.6%	246%	-10%	4%	-55%
78	NUTRITIONAL HIGH INTL INC	SPLIF	0.06	20	27	363	0.0%	363%	-6%	2%	-71%
79	WESTLEAF INC.	WSLFF	0.16	20	29	121	0.0%	2958%	-56%	2%	126%
80	RAVENQUEST BIOMED INC	RVVQF	0.10	12	22	123	0.0%	489%	-35%	7%	-71%

81	MJ HOLDINGS INC	MJNE	0.24	16	19	65	0.0%	442%	-17%	4%	-77%
82	MYM NUTRACEUTICALS INC	MYMMF	0.11	16	14	150	0.0%	452%	-34%	7%	-72%
83	MCIG INC	MCIG	0.03	14	14	517	0.2%	700%	-9%	1%	-82%
84	NEXT GREEN WAVE HLDGS INC	NXGWF	0.09	14	14	158	0.0%	1112%	-5%	0%	-66%
85	HARVEST ONE CANNABIS INC	HRVOF	0.14	22	23	160	0.1%	563%	-5%	1%	-53%
86	INTERNATIONAL CANNABRANDS IN	GEATF	0.02	5	11	299	0.0%	529%	-65%	11%	-67%
87	INDIA GLOBALIZATION CAPITAL	IGCC	0.74	29	10	40	0.9%	346%	-66%	16%	164%
88	ROTO-GRO INTL LTD	RGI-ASX	0.10	12	10	130	0.0%	215%	-11%	5%	-58%
89	FUTURE FARM TECHNOLOGIES INC	FFRMF	0.04	6	8	165	0.0%	671%	-14%	2%	-74%
90	INDUS HOLDINGS, INC.	INDXF	0.42	4	24	9	0.6%	2546%	5%	0%	
91	LIFESTYLE DELIVERY SYSTEMS	LDSYF	0.52	12	11	23	0.3%	492%	-65%	12%	-60%
92	ACACIA DIVERSIFIED HLDGS INC	ACCA	0.08	3	4	42	0.1%	247%	-71%	22%	-56%
93	INTERNATIONAL ENDEAVORS CORP	IDVV	0.00	0	1	14	0.0%	1115%	-24%	2%	-75%
94	MJ VENTURE PARTNERS, INC. (NVEST INC.)	MJVP	0.02	0				7912%	-55%	1%	-60%
Downstream - Distribution/Marketing/Retail/Delivery											
95	ALCANNA INC	LQSIF	3.28	122	430	37	0.0%	70%	-23%	24%	6%
96	MEDMEN ENTERPRISES INC	MMNFF	0.42	88	422	167	1.0%	823%	-10%	1%	-81%
97	ORIGIN HOUSE	ORHOF	2.93	213	222	73	0.1%	233%	-6%	3%	-38%
98	PLANET 13 HLDGS INC	PLNHF	1.64	134	217	137	0.2%	65%	-47%	42%	-10%
99	IGNITE INTERNATIONAL BRANDS, LTD.	BILZF	1.23	130	133	106	0.1%	225%	-86%	28%	603%
100	GREENLANE HOLDINGS INC	GNLN	3.13	31	87	10	0.5%	827%	-1%	0%	
101	SLANG WORLDWIDE INC.	SLGWF	0.32	72	65	223	0.0%	679%	-24%	3%	
102	NATIONAL ACCESS CANNABIS CORP.	NACNF	0.15	25	40	175	0.0%	452%	-84%	16%	-62%
103	DIONYMED BRANDS INC	HMDEF	0.02	1	31	33	0.0%	16362%	-31%	0%	-99%
104	DRIVEN DELIVERIES INC	DRVD	0.64	28	28	44	0.3%	814%	-89%	10%	559%
105	INNER SPIRIT HLDGS LTD	INSHF	0.08	16	26	206	0.0%	191%	-9%	4%	-19%
106	PASHA BRANDS LTD.	CRFTF	0.06	13	12	194	0.0%	970%	-84%	8%	
107	WILDFLOWER BRANDS INC	WLDF	0.18	12	18	68	0.0%	290%	-16%	5%	-55%
108	CHOOM HOLDINGS INC	CHOOF	0.13	25	18	70	0.1%	404%	-15%	4%	12%

109	GABY INC.	GABLF	0.09	16	20	176	0.0%	319%	-29%	8%	-71%
110	DIEGO PELLICER WORLDWIDE INC	DPWWD	0.01	1	9	322	0.3%	2786%	-19%	1%	-98%
111	GSRX INDUSTRIES INC	GSRX	0.07	6	7	81	0.0%	2929%	14%	0%	-96%
112	SMOKE CARTEL INC	SMKC	0.13	3	5			1300%	0%	0%	-89%
113	ROCKY MTN HIGH BRANDS INC	RMHB	0.03	4	4	134	1.0%	946%	-5%	1%	-87%
114	HIGH HAMPTON HLDGS CORP	HHPHF	0.03	3	2	104	0.0%	943%	-23%	2%	-82%
115	HIGH TIDE INC	HITI-CA	0.14	0		207	0.1%	233%	-5%	2%	-100%
Extraction, Genetics, Canna Science, etc.											
116	MEDIPHARM LABS CORP	MEDIF	2.71	355	328	131	0.3%	108%	-66%	38%	117%
117	NEPTUNE WELLNESS SOLUTION IN	NEPT	2.75	257	240	94	0.4%	139%	-12%	8%	8%
118	VALENS GROWWORKS CORP	VGWCF	2.20	256	204	116	0.1%	66%	-61%	48%	100%
119	22ND CENTURY GROUP, INC.	XXII	1.00	126	84	126	0.5%	212%	-30%	12%	-60%
120	ENWAVE CORP	NWVCF	1.37	152	135	111	0.0%	54%	-33%	38%	39%
121	PLUS PRODUCTS INC	PLPRF	1.32	57	104	53	0.2%	355%	-18%	5%	-65%
122	RADIANT TECHNOLOGIES	RDDTF	0.40	104	108	264	0.1%	135%	-32%	19%	-28%
123	WILLOW BIOSCIENCES INC.	CANSF	0.44	35	17	79	0.0%	395%	-4%	1%	-48%
124	DIXIE BRANDS INC.	DXBRF	0.21	26	24	126	0.5%	489%	-2%	0%	
125	WORLD-CLASS EXTRACTIONS	PUMP-CA	0.05	32	21	599	0.1%	218%	-27%	11%	-59%
126	CANNAPOWDER INC	CAPD	1.00	12	12	12	0.0%	300%	-49%	14%	0%
127	CANNABIS ONE (METROPOLITAN ENERGY CORP)	CBIS-CA	0.12	9	8	73	0.1%	2810%	-6%	0%	-73%
128	HALO LABS INC	AGEEF	0.26	2	6	9	1.9%	157%	-42%	21%	15%
129	BHANG INC.	BHNGF	0.07	3	3	51	0.1%	2061%	-70%	3%	-85%
130	MICRON WASTE TECHNOLOGIES IN	MICWF	0.09	7	5	79	0.0%	363%	-30%	8%	-57%
131	AREV BRANDS INTL LTD	AREVF	0.05	3	3	55	0.0%	589%	-99%	14%	
132	NEUTRISCI INTERNATIONAL INC	NRXCF	0.02	3	2	110	0.0%	239%	-41%	15%	-54%
133	KALI INC	KALY	0.00	1	1	266	4.6%	1208%	-47%	4%	-86%
134	ESENSE-LAB LTD	ESE-ASX	0.01	1				341%	-1%	0%	-57%
135	ALTERNET SYSTEMS INC	ALYI	0.00	1	1	117	2.8%	1348%	-17%	1%	-38%
136	QUADRON CANNATECH CORP	QUDCF				72	0.0%				

137	CANNA-V-CELL SCIENCES INC	CNVC-CA	0.11	0		97	0.0%	130%	-30%	19%	-100%
138	CLS HOLDINGS USA INC	CLSH-CA	0.20	26		126	0.0%	80%	-22%	22%	
139	NEXTLEAF SOLUTIONS LTD	OILS-CA	0.25	24		97	0.1%	149%	-21%	12%	-43%
Input Materials - Nutrients, Hydroponic Equipment, etc.											
140	SCOTTS MIRACLE-GRO CO	SMG	101.65	5,673	7,536	55	0.8%	13%	-43%	77%	66%
141	MARRONE BIO INNOVTIONS	MBII	1.05	140	163	133	0.0%	83%	-3%	3%	-29%
142	GROWGENERATION CORP	GRWG	4.01	147	139	37	0.5%	43%	-49%	53%	78%
143	GROWLIFE INC	PHOT	0.50	13	18	26	2.3%	245%	-36%	13%	-53%
144	SURNA INC	SRNA	0.09	20	19	228	0.2%	46%	-76%	62%	20%
145	SHARC INTL SYS INC	INTWF	0.07	3	6	39	0.0%	380%	-74%	16%	-73%
146	AFFINOR GROWERS INC	RSSFF	0.02	2	2	100	0.0%	263%	-39%	13%	-51%
Medical Cannabis											
147	ABBVIE INC	ABBV	85.95	127,105	155,234	1,479	0.4%	11%	-27%	72%	-7%
148	FSD PHARMA INC	FSDDF	4.74	37	7,127	1,506	0.0%	1350%	-28%	2%	-100%
149	GW PHARMACEUTICALS PLC	GWPH	101.39	3,115	2,588	31	1.9%	93%	-11%	11%	4%
150	TILRAY INC	TLRY	19.55	1,639	2,280	101	1.6%	459%	-4%	1%	-72%
151	ARENA PHARMACEUTICALS INC	ARNA	45.93	2,301	1,581	50	0.7%	40%	-24%	37%	18%
152	GREEN THUMB INDUSTRIES INC	GTBIF	8.42	1,083	1,374	156	0.1%	98%	-12%	11%	-14%
153	TRULIEVE CANNABIS CORP	TCNNF	12.85	460	1,514	110	0.3%	26%	-48%	65%	59%
154	APHRIA INC	APHA	4.74	1,192	1,221	252	1.0%	131%	-21%	14%	-17%
155	CARA THERAPEUTICS INC	CARA	16.94	791	602	47	1.3%	63%	-28%	31%	30%
156	HARVEST HEALTH & RECREATION	HRVSF	2.31	218	814	285	0.1%	371%	-12%	3%	-85%
157	COLUMBIA CARE INC.	COLXF	2.10	454	414	216	0.0%	243%	-24%	9%	
158	ORGANIGRAM HOLDINGS INC	OGI	2.83	442	443	156	1.6%	198%	-29%	13%	-21%
159	CORBUS PHARMACEUTICALS HLDGS	CRBP	4.77	308	262	65	0.6%	91%	-12%	12%	-18%
160	ITEM 9 LABS CORP	INLB	1.50	95	223	147	0.0%	460%	-16%	3%	-88%
161	PHARMACIELO LTD	PHCEF	2.07	132	132	64	0.0%	381%	-8%	2%	
162	22ND CENTURY GROUP INC	XXII	1.00	126	84	126	0.5%	212%	-30%	12%	-60%
163	CANSORTIUM INC	CNTMF	0.49	94	145	195	0.0%	415%	-30%	7%	

164	ONE WORLD PHARMA, INC.	OWPC	1.95	87	87	45	0.0%	156%	-60%	28%	67%
165	LIBERTY HEALTH SCIENCES INC	LHSIF	0.50	171	176	342	0.3%	120%	-49%	29%	-27%
166	ALEAFIA HEALTH INC	ALEAF	0.50	136	132	272	0.1%	346%	-9%	2%	-52%
167	CURE PHARMACEUTICAL HLDG COR	CURR	3.00	114	108	38	0.1%	94%	-60%	39%	100%
168	MEDICAL MARIJUANA INC	MJNA	0.03	93	99	3,654	0.1%	313%	-21%	6%	-66%
169	CANNTTRUST HLDGS INC	CTST	0.78	111	90	141	0.9%	1201%	-1%	0%	-84%
170	WEEDMD INC	WDDMF	0.75	72	93	96	0.2%	125%	-9%	7%	-23%
171	VIREO HEALTH INTERNATIONAL	VREO-CA	1.03	25	79	85	0.1%	400%	-93%	19%	791%
172	TPI/PALLA PHARMA LTD	TPE-ASX	0.57	72	85	114	0.1%	73%	-5%	7%	-16%
173	PHARMAGREEN BIOTECH INC.	PHBI	1.01	75	75	75	0.0%	247%	-36%	13%	-41%
174	GENEREX BIOTECHNOLOGY CORPORATION	GNBT	0.65	29	58	44	1.6%	407%	-9%	2%	-36%
175	ZYNERBA PHARMACEUTICALS INC	ZYNE	6.03	140	62	23	1.6%	173%	-54%	24%	103%
176	BOTANIX PHARMA LTD	BOT-ASX	0.07	69	66	965	0.4%	181%	-34%	16%	46%
177	MEDLAB CLINICAL LTD	MDBBF	0.29	62	55	215	0.0%	18%	-13%	43%	-6%
178	EMERALD HEALTH THERAPEUTICS	EMHTF	0.27	43	59	146	0.2%	1177%	5%	0%	-86%
179	PHARMACYTE BIOTECH, INC.	PMCB	0.03	44	44	1,328	0.2%	103%	-4%	4%	-10%
180	CARDIOL THERAPEUTICS INC.	CRTPF	2.97	77	69	26	0.0%	237%	-45%	16%	
181	CANN GROUP LTD	CNGGF	0.34	48	16	142	0.0%	456%	-22%	5%	-77%
182	ZELDA THERAPEUTICS LTD	ZLDAF	0.05	36	34	759	0.0%	68%	-55%	45%	34%
183	EMERALD BIOSCIENCE INC	NMUS	0.20	27	29	134	0.2%	475%	-2%	0%	-49%
184	THC GLOBAL GROUP LTD	HDRPF	0.26	36	32	137	0.0%	54%	-4%	7%	-24%
185	OPIANT PHARMACEUTICALS, INC.	OPNT	14.18	58	36	4	0.4%	29%	-30%	51%	-2%
186	LEXARIA BIOSCIENCE CORP	LXRP	0.43	34	33	79	0.1%	290%	-8%	3%	-54%
187	AXIM BIOTECHNOLOGIES INC	AXIM	0.44	28	33	63	0.0%	468%	-19%	4%	-41%
188	MGC PHARMACEUTICALS LTD	MGCLF	0.03	39	37	1,367	0.0%	77%	-96%	56%	11%
189	AVICANNA INC.	AVCIF	1.02	23	23			246%	-2%	1%	
190	RHINOMED LTD	RHNMF	0.14	24	23	169	0.0%	323%	-65%	17%	12%
191	KHIRON LIFE SCIENCES CORP	KHRNF	0.69	74	40	106	0.2%	375%	-14%	4%	-38%

192	TETRA BIO-PHARMA INC	TBPMF	0.36	75	71	211	0.2%	153%	-61%	29%	-43%
193	GOLDEN LEAF HOLDINGS LTD	GLDFF	0.02	14	16	584	0.1%	894%	-19%	2%	-77%
194	AUSCANN GROUP HLDGS LTD	ACNNF	0.13	41	16	317	0.0%	337%	-3%	1%	-67%
195	CRESO PHARMA	CPH-ASX	0.09	16	15	152	9.7%	352%	3%	-1%	-69%
196	INMED PHARMACEUTICALS INC	IMLFF	0.19	33	22	172	0.1%	230%	-13%	5%	-25%
197	BOD AUSTRALIA LTD	BDA-ASX	0.20	18	16	91	0.1%	153%	-21%	12%	-28%
198	PREMIER HEALTH GROUP INC	PHGRF	0.22	13	18	63	0.0%	265%	-20%	7%	-68%
199	BENCHMARK BOTANICS INC	BHHKF	0.26	37	34	143	0.0%	98%	-100%	50%	47%
200	THC BIOMED INTL LTD	THCBF	0.11	15	18	146	0.0%	429%	-19%	4%	-56%
201	CANNABICS PHARMACEUTICALS	CNBX	0.13	17	14	134	0.1%	285%	-8%	3%	-55%
202	PIVOT PHARMACEUTICALS INC	PVOTF	0.11	19	14	171	0.0%	383%	-86%	18%	-48%
203	PREVECEUTICAL MED INC	PRVCF	0.01	4	8	396	0.1%	1718%	-95%	5%	-67%
204	CANADA HOUSE WELLNSS GRP INC	SARSF	0.01	3	4	194	0.0%	977%	-54%	5%	-90%
205	TREE OF KNOWLEDGE INTL CORP	TRKWF	0.04	8	9	202	0.0%	722%	-45%	6%	-76%
206	CANNTAB THERAPEUTICS LTD	TLFTF	0.30	8	7	25	0.0%	402%	-17%	4%	-58%
207	CANNPAL ANIMAL THE	CP1-ASX	0.10	9	7	93	0.1%	42%	-23%	35%	1%
208	THERAPIX BIOSCIENCES LTD	TRPX	1.29	5	4	4	14.6%	367%	9%	-2%	-53%
209	WAYLAND GROUP CORP	MRRCF	0.02	1	3	73	0.7%	6150%	-38%	1%	-97%
210	AURA HEALTH INC	LMLLF	0.03	2	4	83	0.0%	815%	-17%	2%	-85%
211	INTEC PHARMA LTD	NTEC	0.65	23	9	35	1.2%	1323%	-37%	3%	-91%
212	RELEVIM TECHNOLOGIES INC	RLLVF	0.02	3	5	131	0.0%	344%	-7%	2%	-73%
213	NANOSPHERE HLTH SCIENCES INC	NSHSF	0.04	4	4	108	0.0%	875%	-36%	4%	-76%
214	VODIS PHARMACEUTICALS INC	VDQSF	0.03	2	3	60	0.0%	296%	19%	-7%	-47%
215	WIZE PHARMA LTD	WIZP	0.16	2	2	11	0.3%	994%	-38%	4%	-81%
216	ALLIANCE GROWERS CORP	ALGWF	0.02	2	2	86	0.0%	1441%	-55%	4%	-63%
217	VERITAS PHARMA INC	VRTHF	0.11	1	1	12	0.0%	835%	-5%	1%	-85%
218	ABATTIS BIOCEUTICALS CORP	ATTBF	0.01	3	(0)	353	0.1%	1100%	-67%	6%	-86%
219	XPHYTO THERAPEUTICS CORP.	XPHYF	0.63	30				8%	-92%	92%	

220	INSYS THERAPEUTICS INC	INSY	0.07	5	(65)	75	0.2%	9841%	-56%	1%	-98%
221	BLUEBERRIES MEDICAL CORP	BBM-CA	0.06	7		107	0.1%	930%	-89%	9%	785%
222	CANNARA BIOTECH, INC.	LOVE-CA	0.09	0				177%	-24%	12%	
223	ORION NUTRACEUTICALS INC	ORI-CA	0.04	0		47	0.6%	908%	-60%	6%	-100%
224	CANN GLOBAL LIMITED	ASX-CGB									
Real Estate & Investors											
225	COMPASS DIVERSIFIED HOLDINGS	CODI	23.03	1,379	2,111	60	0.6%	4%	-50%	93%	85%
226	FRANKLIN STREET PROPERTIES CORP.	FSP	8.63	925	1,872	107	0.3%	4%	-32%	89%	39%
227	INNOVATIVE INDUSTRIAL PPTYS	IIPR	78.09	926	765	12	2.5%	79%	-46%	37%	72%
228	CANOPY RIVS INC	CNPOF	1.04	160	136	191	0.0%	362%	-25%	6%	-63%
229	FIRE & FLOWER HOLDINGS CORP.	FFLWF	0.62	79	79	128	0.0%	142%	-10%	6%	
230	C21 INVTS INC	CXXI-CA	0.55	45	83	82	0.4%	244%	-38%	14%	-4%
231	CANNEX CAPITAL HOLDINGS INC	CNXXF	0.41	52	55	125	0.1%	444%	-33%	7%	-39%
232	CANNAPHARMARX, INC.	CPMD	1.60	58	67	36	0.0%	87%	-25%	22%	-6%
233	FIRST COLOMBIA DEVELOPMENT CORP. / REDWOOD GREEN CORP.	FCOL	0.66	69	66	105	0.0%	53%	-98%	65%	6450%
234	ICC INTERNATIONAL CANNABIS CORP.	WLD CF	0.03	21	41	706	0.0%	1755%	-40%	2%	-89%
235	AUSTRALIS CAPITAL INC	AUSCF	0.32	54	33	158	0.0%	242%	-23%	9%	-37%
236	SMART CANNABIS CORP.	SCNA	0.01	31	31	4,880	0.0%	652%	-44%	6%	-71%
237	LEVIATHAN CANNABIS GP INC	LVCNF	0.30	28	29	95	0.0%	587%	-100%	15%	#####
238	CANNABIS STRATEGIC VENTURES	NUGS	0.06	11	28	188	0.2%	5125%	-25%	0%	-97%
239	GENERAL CANNABIS CORP.	CANN	0.74	29	31	39	0.2%	270%	-32%	11%	-51%
240	MJ HARVEST INC	MJHI	1.30	25	25			441%	-50%	10%	
241	TIDAL ROYALTY CORP.	TDRYF	0.05	13	13	292	0.0%	789%	-78%	9%	-85%
242	INVICTUS MD STRATEGIES CORP	IVITF	0.09	12	20	125	0.1%	946%	-18%	2%	-83%
243	LGC CAPITAL LTD	LGGCF	0.04	18	22	524	0.0%	471%	-100%	17%	-72%
244	JUSHI HOLDINGS INC.	JUSHF	1.25	111	16	14	0.1%	101%	-88%	46%	5366%
245	NABIS HOLDINGS INC.	INNPF	0.06	7	11	110	0.1%	1191%	-30%	2%	
246	TARGET GROUP INC	CBDY	0.02	12	11	569	0.0%	614%	-37%	6%	-79%
247	CORDOVACANN CORP	LVRLF	0.20	8	9	41	0.0%	400%	-37%	8%	-73%

248	VENTURA CANNABIS & WELLNESS	CVHIF	0.16	6	8	35	0.0%	358%	-2%	0%	-30%
249	FINCANNA CAPITAL CORP	FNNZF	0.08	8	7	99	0.0%	95%	-25%	21%	-4%
250	SOL GLOBAL INVESTMENTS CORP	SOLCF	0.36	17	51	23	0.4%	773%	-20%	3%	-56%
251	HEMP NATURALS, INC.	HPMM	0.02	7	8	329	0.0%	15582%	-14%	0%	-97%
252	JETBLACK CORP.	JTBK	0.06	4	4	67	0.0%	1631%	-27%	2%	-62%
253	CROP INFRASTRUCTURE CORP	CRXPF	0.01	2	5	171	0.1%	2673%	-83%	3%	-95%
254	CANADABIS CAPITAL INC	CANB-CA	0.14	6	7	43	0.0%	254%	-38%	13%	-64%
255	REDFUND CAP CORP	PNNRF	0.23	11	11	47	0.0%	295%	-96%	24%	-26%
256	VENCANNA (TOP STRIKE RES CORP)	TPPRF	0.03	5	2	170	0.0%	339%	-16%	5%	-77%
257	ASCENT INDUSTRIES CORP.	PGTMF	0.03	0	0	2	0.0%	478%	-100%	17%	-77%
258	LIBERTY LEAF HOLDINGS LTD	LIBFF	0.05	2	1	31	0.0%	267%	-52%	16%	-28%
259	BELGRAVIA CAPITAL INTL INC	BLGVF	0.01	3	(6)	237	0.0%	408%	-68%	14%	-38%
260	QUINSAM CAPITAL CORP	QCAAF	0.11	12	(17)	113	0.0%	152%	-100%	40%	-40%
261	CANNABIS GROWTH OPRTUNITY	CWWBF	0.63	10	(25)	16	0.0%	217%	-100%	31%	-10%
262	CAPTOR CAP CORP	CPTRF	0.23	9	(19)	39	0.2%	992%	-93%	9%	-75%
263	MMJ GROUP HLDGS LTD	MMJJF	0.11	24	(43)	224	0.0%	127%	-43%	25%	-32%
264	BOUGAINVILLE VENTURES INC	BOG-CA	0.02	1		59	0.2%	693%	-25%	3%	-41%
265	YIELD GROWTH CORP	BOSS-CA	0.19	0				282%	-35%	11%	-100%
Technology, Ancillary Products and Services											
266	KUSHCO HOLDINGS INC	KSHB	1.68	180	188	107	0.5%	329%	-25%	7%	-69%
267	TILT HOLDINGS INC	SVVTF	0.34	84	196	305	0.2%	782%	-50%	6%	-87%
268	MEDICINE MAN TECHNOLOGIES IN	MDCL	2.84	113	98	40	0.1%	47%	-63%	57%	125%
269	NEXTECH AR SOLUTIONS CORP	NEXCF	1.57	67	66	43	0.3%	52%	-84%	62%	118%
270	HELIX TCS INC	HLIX	0.60	56	59	93	0.0%	450%	-32%	7%	-33%
271	NAMASTE TECHNOLOGIES INC	NXTTF	0.26	78	36	300	0.1%	391%	-9%	2%	-56%
272	AKERNA CORP.	KERN	12.50	137	114	11	8.2%	481%	-75%	13%	24%
273	CANNABIX TECHNOLOGIES INC	BLOZF	0.39	41	33	104	0.0%	305%	-13%	4%	-61%
274	CANNVAS MEDTECH INC	CANVF	0.04	14	13	349	0.0%	2400%	-97%	4%	-24%
275	LEAFBUYER TECHNOLOGIES INC	LBUY	0.15	12	11	79	0.2%	1078%	-44%	4%	-67%

276	VEXT SCIENCE INC.	VEXTF	0.55	11	11			211%	-59%	22%	
277	YPB GROUP LTD	YPB-ASX	0.00	7	9	1,507	0.4%	200%	-44%	18%	-60%
278	NUGL INC	NUGL	0.18	8	9	46	0.1%	1272%	-48%	4%	-90%
279	LIFT & CO CORP	LFCOF	0.07	3	2	41	0.0%	767%	-23%	3%	
280	GLOBAL CANNABIS APPLICATIONS	FUAPF	0.02	2	3	101	0.1%	361%	-44%	11%	-62%
281	ADVANTIS CORP	ADVT	0.00	0	1	978	0.0%	14900%	-67%	0%	-99%
282	BRAINGRID CORP.	BGRD-CA	0.00	0	0	1	10.2%	4873%	0%	0%	19%
283	GLOBAL HEALTH CLINICS LTD	LRSNF	0.01	1	(0)	49	0.0%	3802%	-78%	2%	-87%
284	CB2 INSIGHTS INC	CBII-CA	0.10	7		70	0.1%	267%	-59%	18%	
Testing											
285	PSYCHEMEDICS CORP	PMD	9.09	50	49	6	0.2%	116%	-22%	16%	-43%
286	EVIO INC	EVIO	0.13	4	18	29	3.1%	562%	19%	-4%	-63%
287	FLUROTECH	FLURF	0.13	6	3	43	0.0%	275%	-92%	25%	1224%
US - Cultivation, Processing (and Dispensing) - MSO & SSO											
288	ACREAGE HOLDINGS INC	ACRGF	5.21	343	3,565	672	0.0%	476%	-26%	5%	-73%
289	CURALEAF HOLDINGS INC	CURLF	5.96	2,104	2,864	464	0.1%	97%	-35%	26%	-4%
290	CRESCO LABS INC	CRLBF	4.81	324	717	124	0.2%	199%	-99%	33%	-61%
291	VILLAGE FARMS INTL INC	VFFIF	6.39	314	349	49	1.1%	183%	-54%	23%	97%
292	MARIMED INC	MRMD	0.58	127	168	218	0.2%	819%	12%	-1%	-82%
293	FLOWER ONE HOLDINGS INC	FLOOF	0.56	99	164	177	0.1%	402%	0%	0%	-47%
294	AYR STRATEGIES INC.	AYRSF	9.25	134	217	19	0.0%	113%	-18%	14%	-12%
295	IANTHUS CAPITAL HOLDINGS INC	ITHUF	1.32	226	181	58	0.5%	363%	-20%	5%	-5%
296	4FRONT VENTURES CORP.	CNXXF	0.41	52	55	125	0.1%	444%	-33%	7%	-39%
297	SUNNIVA INC	SNNVF	0.26	10	53	38	0.4%	1526%	-52%	3%	-89%
298	TERRA TECH CORP	TRTC	0.18	20	50	115	0.2%	974%	-6%	1%	-69%
299	CHEMESIS INTERNATIONAL INC	CADMF	0.14	13	24	93	0.1%	1115%	-20%	2%	-81%
300	CITATION GROWTH CORP	MRPHF	0.16	10	23	62	0.1%	573%	-7%	1%	-63%
301	KAYA HOLDINGS INC	KAYS	0.07	13	18	188	0.2%	85%	-28%	25%	-40%
302	GABRIELLAS KITCHEN INC	GABLF	0.09	16	20	176	0.0%	319%	-29%	8%	-71%

303 [KOIOS BEVERAGE CORP](#)

KBEVF	0.12	9	4	50	0.0%	495%	-5%	1%	-14%
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304 [BODY AND MIND INC](#)

BMMJ	0.48	9	0	19	0.4%	461%	-26%	5%	18%
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