

Intro-Blue, LLC | 617-454-1088 | peter@intro-blue.com | www.intro-blue.com

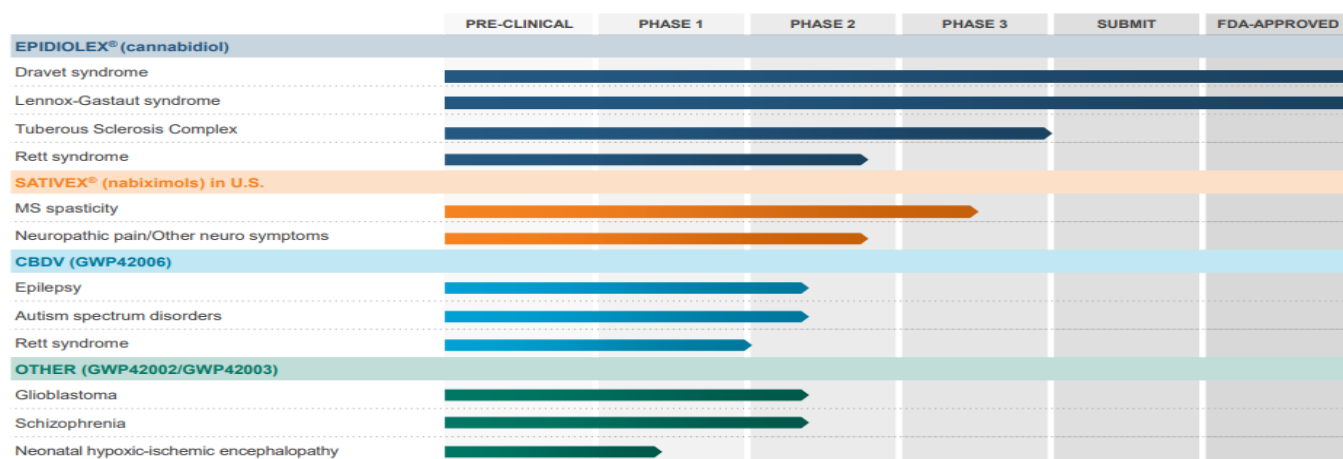
GW PHARMACEUTICALS: WIDENING ITS MOAT AS THE MEDICAL CANNABIS LEADER

GW Pharmaceuticals' Q2 performance reaffirms and strengthens its status as the company best positioned to lead the \$11.2 billion medical cannabis market. Driven by strong sales of Epidiolex, its oral cannabidiol (CBD) solution that is approved by the FDA to treat two rare types of childhood-onset epilepsy, [GW Pharmaceuticals \(GWPH\)](#) posted \$72 million in sales in the second quarter. This represents more than 100% Q/Q growth from \$33.1 million in Q1, is up multifold from just \$3.3 million a year ago, and beat Street estimates of \$45 million by a huge margin. Epidiolex sales accounted for \$68 million in Q2 as the number of U.S. patients receiving the drug increased from 7,600 in Q1 to 12,000 in Q2. The number of physicians prescribing Epidiolex climbed from 1,900 to 2,500. This strong uptick – which came despite a ~\$30,000 launch price – is indicative of high patient retention, strong demand among new patients, and increased acceptance by physicians and payors. This combination of factors is a key competitive advantage for GWPH as other medical cannabis firms lack FDA-approved drugs and they also do not have established relationships with the three Ps that matter the most – patients, physicians, and payors. As a result, Epidiolex sales have crossed the \$100 million mark already in 2019 and put GWPH in position to benefit most from the growth in medical cannabis sales in the U.S. which is estimated to climb from \$4.5 billion in 2018 to \$11.2 billion by 2025.

GWPH's moat is set to expand even further with the expected 4Q19 launch of Epidiolex in the EU, making the company the only one selling a blockbuster cannabis drug on each side of the Atlantic. In July, the company received a positive opinion from the European Medicines Agency's (EMA) Committee for Medicinal Products for Human Use (CHMP) regarding the marketing of Epidiolex – the European name of Epidiolex – in the EU. The positive opinion paves the way for the formal EMA approval that is expected in October. The company then plans to launch the drug in France, Germany, and the U.K. in the fourth quarter, with Spain and Italy to follow in 2020. GWPH's Early Access Program (EAP) in Europe for Dravet syndrome and LGS patients now includes over 800 patients registered across five major EU countries. The total addressable market for medical cannabis in these five countries stands at ~\$40 billion and GWPH has sufficient production capacity to meet the expected demand in both Europe and the U.S. – another first for any medical cannabis company.

The company's strong clinical pipeline provides multiple growth opportunities and addresses the risk of overdependence on Epidiolex. A study by the National Academies of Science found that cannabis has the potential to cannibalize 11% of the spending on medical conditions that can be treated with cannabis, and GWPH is leading the charge on this front, too. It is recruiting patients for a phase 3 study evaluating Epidiolex in treating Rett syndrome and plans to start a pivotal clinical study evaluating Sativex in treating multiple sclerosis spasticity in Q4 with hopes of securing U.S. approval. GWPH also expects to begin recruitment for a study of cannabidiol (CBDV) in treating autism by the end of this year. This pipeline opens multiple growth avenues for the company, reduces business concentration risk arising from the dependence on Epidiolex, and makes GWPH the undisputed leader in the medical cannabis space.

Chart 1: GWPH's Cannabinoid Platform Has a Strong Clinical Pipeline



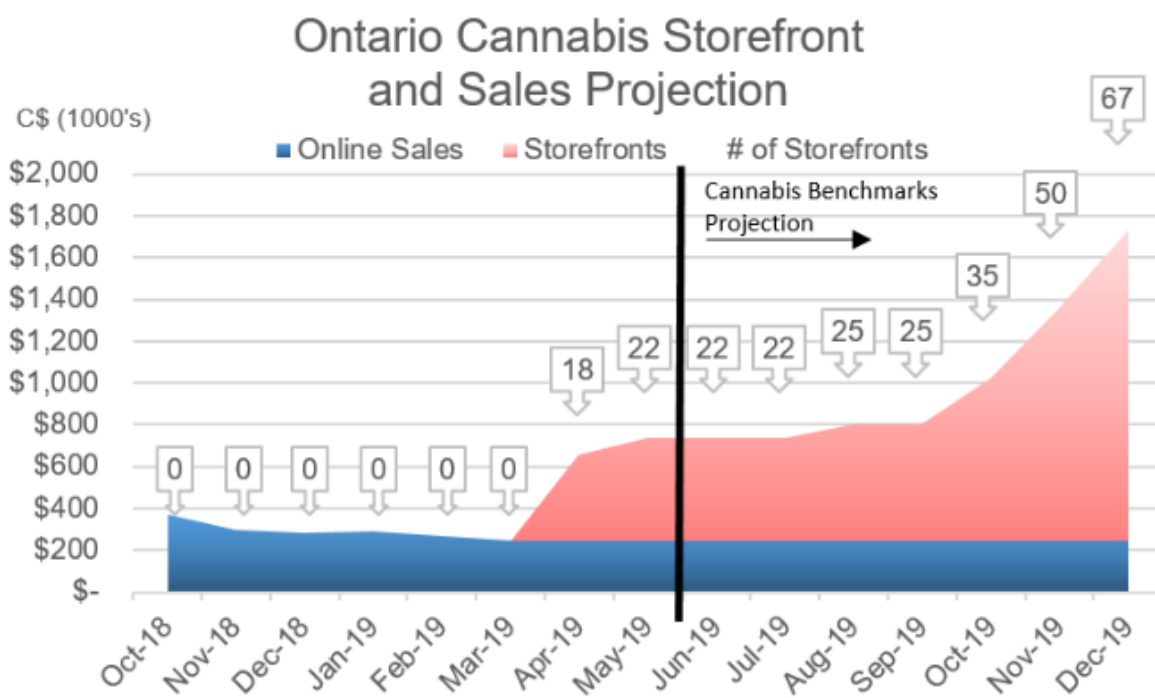
Source: Intro-Blue, GW Pharmaceuticals

CANNA NEWS

STATE AND REGULATORY NEWS

Daily cannabis sales in Ontario have jumped 259% to an average of C\$696,850 per day. Since the Ontario private stores opened in April, daily cannabis sales in the province have jumped by 259% to an average of C\$696,850 per day, according to Statistics Canada. Cannabis Benchmarks estimates that each storefront currently generates average revenue of C\$22,183 per day. The new physical locations have surely helped to capture some of the demand being served previously by the illicit industry. The addition of the new retail locations will further improve the ability of consumers to access the legal market. [Read More](#) (Cannabis Benchmarks)

Chart 2: Ontario Cannabis Sales Forecast



Source: Intro-Blue, Health Canada, AGCO, Cannabis Benchmarks

NJ Gov Phil Murphy 'all in' to approve legal marijuana bill by end of 2019. Gov. Phil Murphy said he would be "all in" for a last-minute push by legislative leadership to approve a bill legalizing adult-use marijuana by the end of the year, rather than holding off for a ballot question during the 2020 presidential election. Senate President Stephen Sweeney, D-3rd District, said that he would like to see the bill pass through the Legislature by the end of the year, though it may be a stretch. [Read More](#) (Marijuana Retail Report)

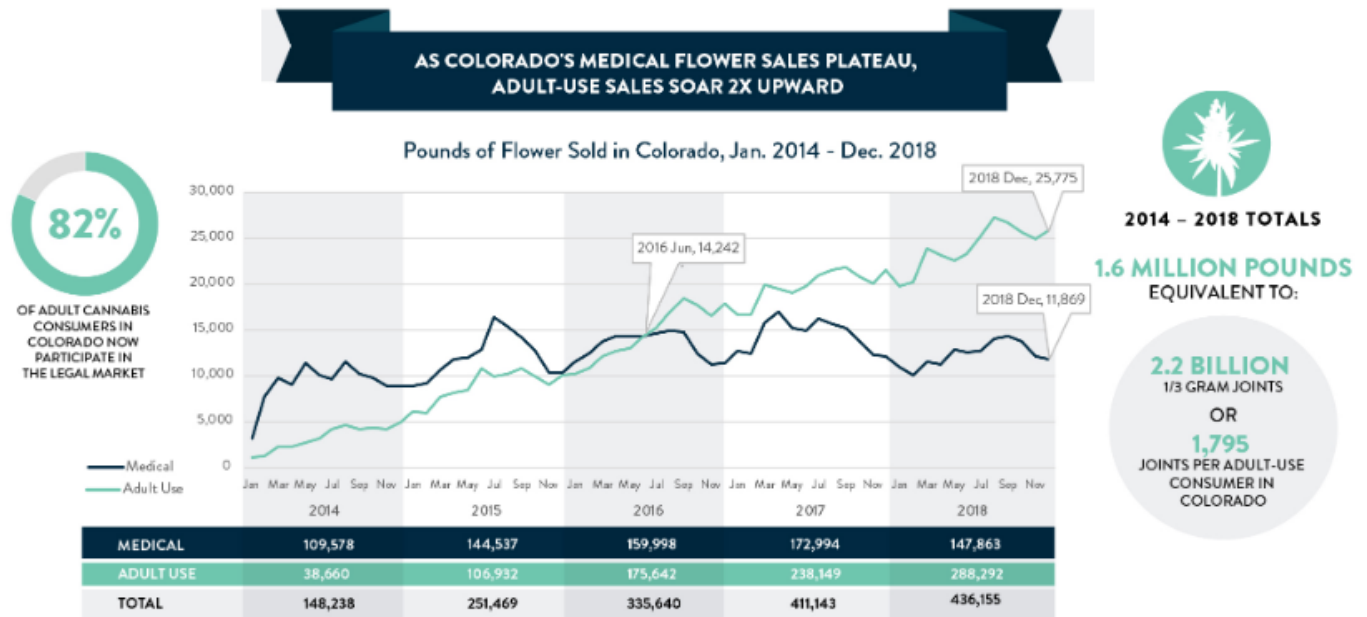
Michigan medical cannabis businesses to pay tiered license fees. Medical marijuana businesses in Michigan soon will face a new licensing fee structure that will increase renewal costs for large growers but lower them for dispensaries. The tiered pricing structure for the state's 250 MMJ businesses will go into effect Oct. 1. "We want to make the fees reasonably related to the size of the operation, so businesses are paying an equitable share," said Marijuana Regulatory Agency Director Andrew Brisbo. Grower and processor fee rates will be determined by sales in product weight, while dispensary fee rates will be pegged to gross retail sales. [Read More](#) (Marijuana Business Daily)

Arizona marijuana legalization initiative takes first step toward 2020 ballot. A ballot measure to legalize marijuana in Arizona in 2020 that has the support of major industry stakeholders was filed with the secretary of state. The Smart & Safe Arizona Initiative would allow individuals 21 and older to possess, consume, cultivate and purchase cannabis from licensed retailers. It would also create a pathway for individuals with prior convictions to have their records expunged and proposes using some tax revenue from legal sales to invest in communities disproportionately impacted by prohibition. [Read More](#) (Marijuana Moment)

New Mexico may start allowing Texas residents access to medical marijuana. A New Mexico judge has ruled that recent changes to the regulations affecting the state's medical marijuana program mean that out of state residents will now qualify to buy cannabis at government-run dispensaries. "The [word] replacement is a clear sign of legislative intent to widen the reach of eligibility for the New Mexico medical cannabis program," wrote Santa Fe Judge Bryan Biedscheid, who presided over the proceeding. [Read More](#) (High Times)

Colorado sold twice as much recreational marijuana as medical cannabis last year. The share of legal marijuana sales in Colorado that came from the recreational market in 2018 significantly outpaced those from the medical market. In fact, there were about two times as many adult-use sales of flower compared to medical cannabis purchases—a new milestone for the state. Colorado’s Marijuana Enforcement Division (MED) said that 288,292 pounds of bud were sold last year for recreational purposes, while 147,863 pounds were sold to medical marijuana patients. For comparison, in 2017, recreational consumers purchased 238,149 pounds and 172,994 pounds were sold to patients. That means the recreational-medical gap increased 73 percent in one year. [Read More](#) (New Frontier Data)

Chart 3: Colorado’s Adult-Use Sales Soars 2x



Source: Intro-Blue, New Frontier Data

Illinois’ medical marijuana program is now expanded and permanent. Governor J.B. Pritzker signed a pair of bills expanding who can get a medical card, and when they can use it. The program was initially limited to just six years, but is now permanent. When the law was first signed in 2013, state lawmakers made it a “pilot,” in order to test the concept and work out any bugs. But now that recreational marijuana will be legal in January, sponsors say it makes sense to permanently allow medical sales too. [Read More](#) (Marijuana Retail Report)

Washington, DC now accepting medical marijuana cards from any state. Washington, DC may have become the medical marijuana mecca of the U.S. Mayor Muriel Bowser announced that dispensaries in the nation’s capital will now accept valid medical marijuana cards from any of the 27 states that have such systems. [Read More](#) (High Times)

Lobbyists race to cash in on cannabis boom. Lobbying firms are taking advantage of the cannabis boom as a number of bills on the industry move through Congress and state legislatures. As businesses look for help dealing with new legislative and regulatory challenges, K Street is rushing to capitalize, highlighted by the highest-grossing firm, Brownstein Hyatt Farber Schreck, launching a new “Cannabis and Industrial Hemp Industry Group.” [Read More](#) (The Hill)

Federal credit union regulator espouses hands-off marijuana policy. Credit unions in state-legal markets won’t risk punishment for providing services to marijuana-related businesses as long as they follow strict banking regulations, a federal credit union regulator said. “It’s a business decision for the credit unions if they want to take the deposits,” National Credit Union Administration (NCUA) chair Rodney Hood told the Credit Union Times. [Read More](#) (Marijuana Business Daily)

Navy bans sailors from using CBD despite federal hemp legalization. The Navy released a notice making clear that sailors are prohibited from possessing or using hemp-derived CBD, even though the crop and its derivatives are no longer federally controlled substances. The military branch emphasized that it has a “zero tolerance” drug policy and said that even with the 2018 Farm Bill, which legalized hemp, “Navy policy has not been affected” and “all products derived from hemp or marijuana are still prohibited.” [Read More](#) (Marijuana Moment)

Columbus will not prosecute misdemeanor marijuana possession cases. Weeks after Columbus drastically reduced penalties for possessing marijuana, City Attorney Zach Klein announced that he will no longer prosecute any misdemeanor cases of pot possession — even those filed under the stricter state law. [Read More](#) (Columbus Dispatch)

COMPANY NEWS

Second CannTrust marijuana facility deemed non-compliant by Health Canada. Health Canada has found fault with cannabis production at a second [CannTrust Holdings \(CTST\)](#) facility, a month after the regulator froze sales of several tons of marijuana grown at another one of its Ontario operations. CannTrust said it had accepted the health regulator's latest findings into the Vaughan facility in Ontario, which received a non-compliant rating, and expects to propose a remediation plan to Health Canada. [Read More](#) (Global News)

Cresco Labs gets green light for New York acquisition. [Cresco Labs \(CRLBF\)](#) announced that it has received regulatory approval for its acquisition of 100% of the membership interests of Gloucester Street Capital, the parent entity of Valley Agriceuticals, via a merger between Gloucester and an indirect subsidiary of Cresco Labs. Valley Ag holds one of the 10 vertically integrated cannabis business licenses granted in the State of New York by the New York State Department of Health. [Read More](#) (New Cannabis Ventures)

Acreage begins rollout of "House of Brands". [Acreage Holdings \(ACRGF\)](#) announced the launch of new cannabis consumer products in select markets as part of its "House of Brands" strategy – a portfolio of unique brands that address different consumer segments and form factors. The launch includes products from three new Acreage-developed brands: The Botanist, Natural Wonder, and Live Resin Project. [Read More](#) (Globe Newswire)

Canopy Growth to buy cannabis research joint venture. [Canopy Growth Corporation \(CGC\)](#) announced that it has entered into an agreement to acquire the global cannabinoid-based medical researcher Beckley Canopy Therapeutics. The acquisition brings together Canopy's wholly owned research program with the Beckley Canopy research platform which is partly owned by Canopy Growth in order to combine the best teams, programs, and clinical work. [Read More](#) (New Cannabis Ventures)

Sundial obtains Health Canada approval to further expand production capacity and allow processing. [Sundial Growers \(SNDL\)](#) announced that it has received amendments to its Standard Cultivation and Standard Processing licenses from Health Canada for an additional 115,000 square feet of cannabis cultivation at its flagship facility in Olds, Alberta. The newly licensed space includes 34 additional purpose-built modular rooms for the cultivation of premium cannabis, almost doubling the total number of flowering rooms to 74 in Olds. [Read More](#) (NewsWire)

Tilray increases international export capacity with new outdoor cultivation site in Portugal. [Tilray \(TLRY\)](#) announced that its wholly-owned subsidiary Tilray Portugal Unipessoal Lda has signed a definitive agreement with Esporão, adding 20 hectares of outdoor cultivation space in Alentejo, Portugal, in addition to its existing 5 hectares of indoor and outdoor cultivation and 6,500 square meters of manufacturing, processing and research space at its EU Campus in Cantanhede, Portugal. [Read More](#) (Windsor Star)

Curaleaf fined \$250K for Massachusetts marijuana ownership snafu. Massachusetts-based [Curaleaf \(CURLF\)](#) was fined \$250,000 for failing to disclose a change of ownership structure related to its cannabis operations in the state. The fine relates to Curaleaf Massachusetts changing its status from non-profit to for-profit but not detailing additional changes as parent company Curaleaf started trading on the Canadian Securities Exchange (CSE). [Read More](#) (Marijuana Business Daily)

MJardin announces Phase 1 construction completion of its Manitoba cultivation facility. [MJardin Group \(MJARF\)](#) announced that it has submitted its Evidence of Readiness package to Health Canada and completed construction on Phase 1 of "WARMAN", a retrofitted indoor cultivation facility located in Winnipeg, Manitoba and the largest in the company's portfolio. [Read More](#) (Globe Newswire)

SOL Global becomes Bluma Wellness. [SOL Global Investments \(SOLCF\)](#) is changing from an international cannabis investment company to a U.S. MSO under the Life Sciences category of the Canadian Securities Exchange. In addition to the business designation change, the company is also changing its name to Bluma Wellness. [Read More](#) (Green Market Report)

EARNINGS

Flower One's second quarter highlighted by industry leading cultivation performance. [Flower One Holdings \(CSE: FONE\)](#) reported its financial and operating results for the second quarter ended June 30, 2019. Now operating in a state of ongoing weekly harvests following the completed conversion of its Nevada greenhouse and its inaugural harvest announced on June 11, 2019, the company confirmed that its second quarter financial and operational performance has resulted in a cultivation yield performance of 38.3 grams per square foot, per harvest cycle, at an average cost per gram of \$0.45. [Read More](#) (Flower One)

Cronos Group triples net revenue in Q2 to \$10.2 million. [Cronos \(CRON\)](#) reported net revenue was \$10.2 million in Q2 2019, representing a 202% increase from \$3.4 million in Q2 2018, primarily driven by the launch of the adult-use market in Canada. Net revenue increased 58% quarter-over-quarter from \$6.5 million in the first quarter of 2019, primarily driven by increased sales in CBD oil, which carries no excise tax reduction and increased sales of dry flower. [Read More](#) (New Cannabis Ventures)

Acreage reports improved cannabis revenue, net loss for quarter. [Acreage Holdings \(ACRGF\)](#) reported second quarter revenue of \$17.7 million, a 501% increase compared to the same period in 2018. Pro forma revenue for the second quarter was \$36.6 million. The company reported a net loss Acreage of \$33.9 million. [Read More](#) (New Cannabis Ventures)

Tilray reports strong cannabis revenue growth in Q2 to \$26 million. [Tilray's \(TLRY\)](#) revenue rose 371.1% to \$45.9 (C\$60.9) million in the second quarter compared to the prior year period. Canadian adult-use revenue nearly doubled to \$15.0 (C\$20.0) million compared to prior quarter. The company made key investments in Europe and the U.S. as part of ongoing focus on global expansion. [Read More](#) (New Cannabis Ventures)

Supreme Cannabis sees Q4 revenue at \$19 million and FY20 revenue in excess of \$150 Million. [Supreme Cannabis \(SPRWF\)](#) anticipates net revenue of approximately \$19 million and positive adjusted EBITDA for Q4 2019. It forecasts net revenue for fiscal 2020 to be between \$150 million and \$180 million, and positive adjusted EBITDA for fiscal 2020. The company will not pursue potential share consolidation approved at 2018 annual general meeting. [Read More](#) (New Cannabis Ventures)

MedMen sees Q4 revenue at \$42 million. [MedMen \(MMNFF\)](#) expects pro forma fourth quarter systemwide revenue, including pending acquisitions, of US\$61 million, representing an annualized run rate of approximately US\$245 million. The company is now on track to achieve an approximately 30% overall reduction in corporate SG&A from the December 2018 quarter, surpassing initial target reduction of 20%. [Read More](#) (New Cannabis Ventures)

Village Farms books \$12.1 million cannabis revenue. [Village Farms International \(VFF\)](#) announced its financial results for the second quarter and six-month period ended June 30, 2019. Net income before tax improved to \$9.9 million and included the contribution of positive net income from Pure Sunfarms of \$14.0 million (Village Farms' share based on its 50% ownership). This compares with a net loss of \$2.3 million. [Read More](#) (New Cannabis Ventures)

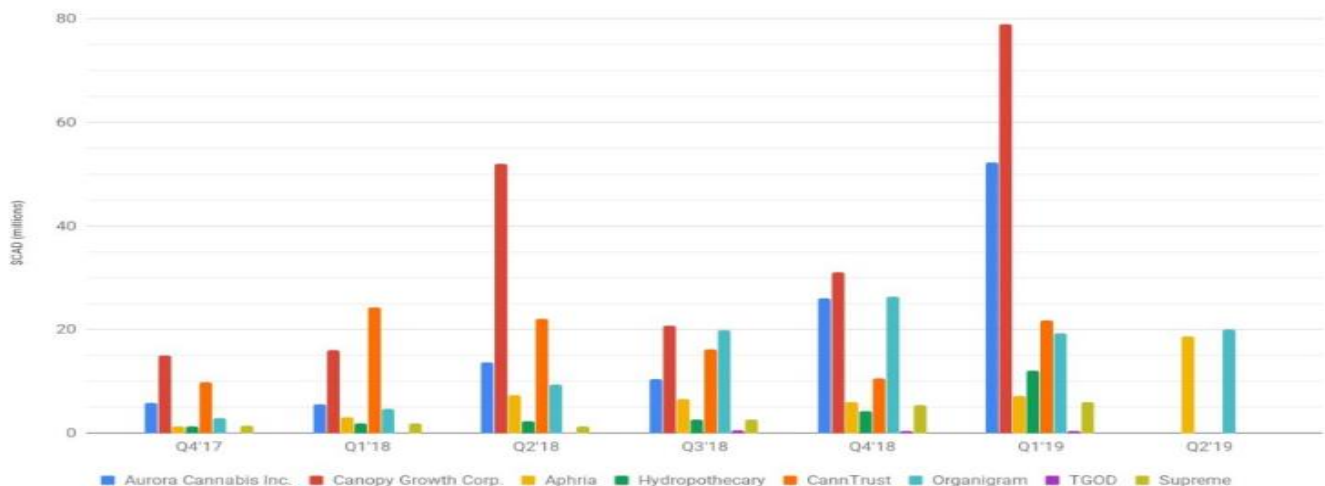
MediPharm Labs boosts Q2 revenue 43% sequentially to \$31.5 million. [MediPharm's \(MEDIF\)](#) revenue was \$31.5 million in Q2 2019, a 43% increase over Q1 2019, reflecting the company's leadership of the Canadian cannabis extraction-only industry and ramp up of new committed contracts. Gross profit was \$11.3 million, a 65% increase over Q1 2019, while gross margin was 36% compared to 31% in Q1 2019. [Read More](#) (New Cannabis Ventures)

MariMed revenue surges on hemp seed sale to related-party GenCanna. [MariMed \(MRMD\)](#) reported record results for both the three- and six-month periods ended June 30, 2019. Revenues increased 774.0% to \$25.7 million while revenue from cannabis business increased 24.5% to \$3.7 million. Gross profit was up 341.1% to \$8.9 million and net income increased to \$4.7 million. Results reflect consistent, dynamic growth in the company's cannabis businesses as well as momentum in its MariMed Hemp subsidiary, which posted significant initial transactions during the second quarter. [Read More](#) (New Cannabis Ventures)

GrowGeneration posts \$19.5 million revenue in Q2. [GrowGeneration's \(GRWG\)](#) net income of \$1,062,000 for Q2 2019 compared to a net loss of \$929,959 for Q2 2018, an increase of \$2.0 million. Adjusted EBITDA of \$1,779,310 for Q2 2019 compared to adjusted EBITDA of \$(205,758) for Q2 2018, an increase of \$2.0 million. [Read More](#) (New Cannabis Ventures)

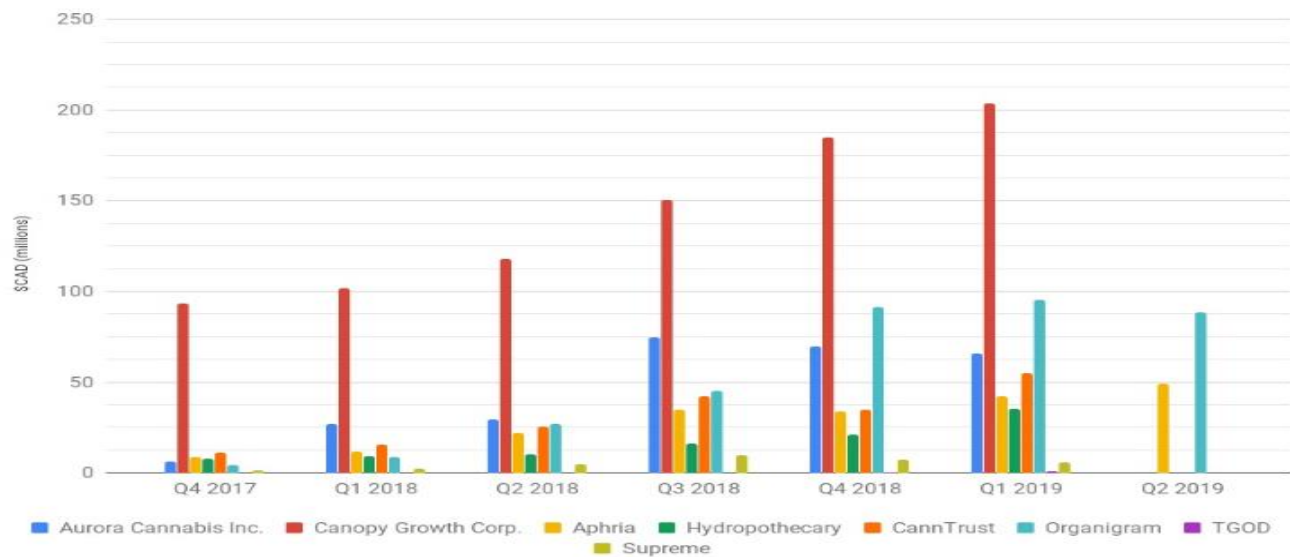
Cannabis REIT improves Q2 revenue by 160% to \$8.6 million. [Innovative Industrial Properties \(IIPR\)](#) generated rental revenues of approximately \$8.3 million in the quarter, representing a 155% increase from the prior year's second quarter. It recorded net income available to common stockholders of approximately \$3.1 million for the quarter, or \$0.30 per diluted share, and adjusted funds from operations of approximately \$5.8 million, or \$0.59 per diluted share. [Read More](#) (New Cannabis Ventures)

Chart 4: Book Value of Biological Assets of Cannabis Companies



Source: Intro-Blue, the deep dive

Chart 5: Book Value of Inventories of Cannabis Companies



Source: Intro-Blue, the deep dive

CAPITAL MARKETS

‘Massive, unsustainable’ value gap between Canadian, U.S. cannabis firms, analyst notes. Marijuana companies focused on the U.S. face “massive and unsustainable” valuation discounts relative to their Canadian counterparts, according to a new report. Companies with an operational focus on the U.S. are trading at about 13 times consensus estimates for their 2020 earnings before interest, taxes, depreciation and amortization (EBITDA.) [Read More](#) (Marijuana Business Daily)

Bizarre pot stock moves may be linked to blockbuster ETF trades. Sharp moves by several pot stocks in the final minutes of trading last week may be the result of trades by the largest cannabis exchange-traded fund. The \$1 billion ETFMG Alternative Harvest ETF recently added about 5.5 million shares of CannTrust Holdings Inc., according to holdings data compiled by Bloomberg. The medical cannabis producer jumped about 40 percent in the last hour of trading on Friday after spending most of the day in the red. Conversely, the fund, known as MJ, has significantly reduced its positions in Auxly Cannabis Group Inc., Vivo Cannabis Inc., Supreme Cannabis Co., and Canopy Rivers Inc., which all fell by at least 13 percent. [Read More](#) (BNN Bloomberg)

Capital for access: The developing two-way marijuana road between California and Canada. It’s no secret that the number of business relationships between American and Canadian cannabis interests has skyrocketed since federal legalization went into effect north of the U.S. border. From a high-level perspective, it’s a simple trade: money for market access. That’s particularly true in California, which has no in-state residency requirement for cannabis companies and is one of the most attractive – and sizable – marijuana markets in the U.S. [Read More](#) (Marijuana Business Daily)

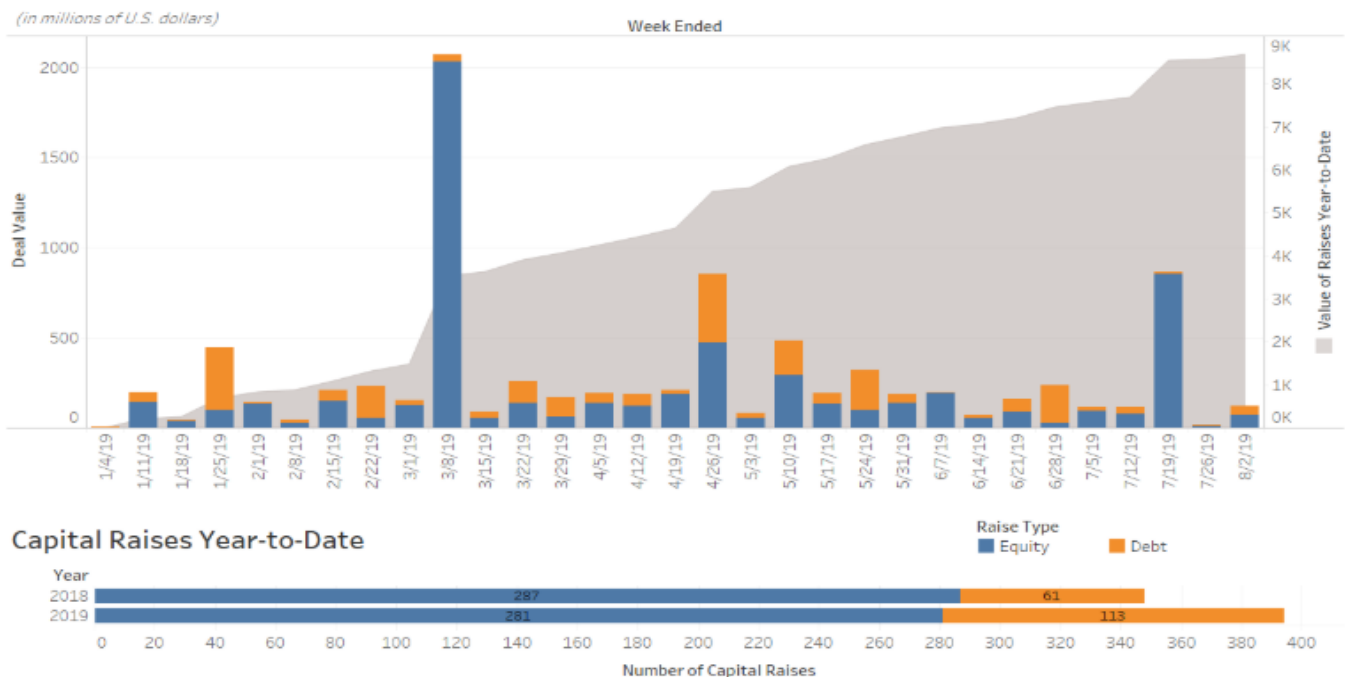
Cannabis marketplace operator LeafLink raises \$35 million. LeafLink, the cannabis industry’s wholesale marketplace, announced the completion of a \$35M Series B round of funding. The round was led by Thrive Capital. Current investors Nosara Capital, Lerer Hippeau, Wisdom VC, and Thought Into Action Ventures also participated in the round alongside L2 Ventures. [Read More](#) (New Cannabis Ventures)

TGOD files application for NASDAQ listing. [The Green Organic Dutchman Holdings \(TGODF\)](#) announced that it has submitted an application to list its common shares on the NASDAQ. Subject to approval for listing, the common shares will continue to trade on the TSX Exchange (TSX) under 'TGOD', which is also the reserved symbol for the NASDAQ application. [Read More](#) (PR Newswire)

Cannabis REIT to provide PharmaCann up to \$30 million to build out Pennsylvania cultivation facilities. [Innovative Industrial Properties \(IIPR\)](#) announced that it closed on the acquisition of a property in Scott Township, Pennsylvania, and entered into a long-term lease and development agreement with a subsidiary of PharmaCann LLC for an approximately 23,000-square-foot industrial facility and an approximately 31,000-square-foot greenhouse facility on the property. [Read More](#) (New Cannabis Ventures)

Deal Watch: Public cannabis companies snapping up private ones in M&A deals. Public cannabis companies took aim at private entities, closing eight acquisitions last week. While the number of merger and acquisition deals involving public companies as acquirers continues to outpace private ones, the percentage of overall M&A transactions involving public buyers is slightly lower in 2019 than year-to-date 2018, 71% versus 78%. In total, 233 M&A transactions have been completed so far in 2019 versus 185 for a similar period last year. [Read More](#) (Marijuana Business Daily)

Chart 6: 2019 Capital Raises by Type and Week



Source: Intro-Blue, Marijuana Business Daily

MEDICAL CANNABIS

Stero Biotech's to commence Phase 2a clinical trial of cannabidiol-based formulation for patients with Crohn's disease. Stero Biotech, an Israel-based, clinical-stage company focused on Cannabidiol (CBD) formulation research and development, received its second Helsinki approval to move forward with a second Phase 2a clinical trial. The trial will be a randomized, double-blind, placebo-controlled, multicenter study of ST-SDCD-01, a CBD based solution in an effort to lower the steroid dosage in patients with Steroid Dependent Crohn's Disease (SDCD). [Read More](#) (Extraction Magazine)

Tilray imports GMP-certified CBD into the U.S. for two clinical trials led by NYU School of Medicine. [Tilray \(TLRY\)](#) announced that it has received approval from the U.S. government and successfully imported an initial shipment of medical cannabinoids into the U.S. to support two clinical trials led by NYU School of Medicine. The two studies will test the efficacy of cannabidiol, or CBD, to treat patients suffering from Alcohol Use Disorder (AUD) and patients suffering from AUD comorbid with Post-Traumatic Stress Disorder (PTSD). Tilray has provided a Good Manufacturing Practices (GMP)-certified CBD formulation in capsule form for the studies. [Read More](#) (BusinessWire)

What medical cannabis firms can learn from Harvest's compliance conundrums. [Harvest Health & Recreation \(HRVSF\)](#) is in high-stakes clashes with medical marijuana regulators in Pennsylvania and Ohio, and the disputes could potentially offer other firms cautionary lessons around the necessity to maintain extremely pristine regulatory compliance in state-legal markets. [Read More](#) (Marijuana Business Daily)

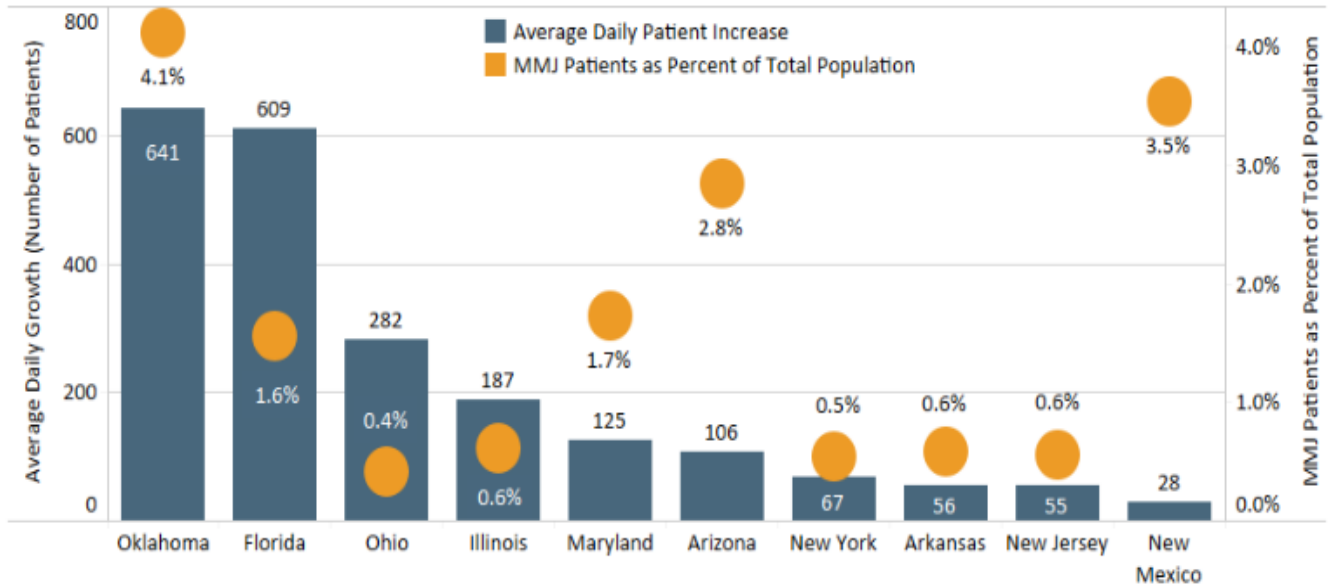
Medical marijuana sales in Arkansas topped \$4 million. Medical marijuana sales in Arkansas topped \$4 million through the end of July, according to sales figures provided by the state revenue agency. The Arkansas Department of Finance and Administration said the six dispensaries in operation sold 574 pounds totaling \$4.01 million. Green Springs Medical, 309 Seneca St., continued to be the most prolific, accounting for 305.15 pounds of the total weight sold since opening May 12. [Read More](#) (The Sentinel Record)

New Mexico closer to capping medical marijuana cultivation. A New Mexico hearing officer endorsed a plan to limit medical cannabis cultivation to 1,750 mature plants per grower, an effort to avert a possible market oversupply. State health department Secretary Kathyeleen Kunkel will have the final say on whether to implement the plan, which some growers argue will constrain and harm the nascent market. The production cap was endorsed by an official assigned to monitor public hearings in July. [Read More](#) (Marijuana Business Daily)

Spectrum Therapeutics announces strategic patient support and education partnership with Medical Pharmacies. Spectrum Therapeutics, the medical division of Canopy Growth Corporation announced that it has entered into a five-year service agreement with Medical Pharmacies Group Limited, Canada's largest specialty pharmacy that services residents in long-term care, retirement homes and other settings. Under the agreement, Spectrum Therapeutics will be the preferred medical cannabis education partner to Medical Pharmacies and the seniors it serves in over 500 residences and care facilities. [Read More](#) (NewsWire)

Medical marijuana markets expanding at varying rates, with Oklahoma, Florida setting the pace. Oklahoma is the fastest-growing medical marijuana market in the average number of daily patient increases, and MMJ patients represent 4.1% of the state's total population – one of the highest rates in the nation. Florida is the second-fastest-growing market in terms of patients joining the registry, with registered patients making up 1.6% of the state's total population. Despite having operational markets for only a few months, Arkansas and Ohio have reached a statewide proportion of medical marijuana patients on par with mature markets such as Illinois, New Jersey and New York. [Read More](#) (Marijuana Business Daily)

Chart 7: Top 10 Fastest-Growing Medical Marijuana Markets in the U.S.



Source: Intro-Blue, Marijuana Business Daily

CBD/HEMP

One-In-Seven Americans use CBD, according to a new Gallup survey. Federal regulations haven't been issued for CBD yet, but that's not stopping Americans from utilizing the cannabis compound, according to a survey released by Gallup. In fact, one-in-seven Americans (14 percent) report using some form of CBD, primarily for therapeutic purposes. The poll illustrates the wide appeal of CBD nationwide since the 2018 Farm Bill was approved in December, federally legalizing hemp and its derivatives like cannabidiol. [Read More](#) (Marijuana Moment)

Hemp, marijuana's mild cousin, just got the green light in N.J. Hemp can be grown freely in the Garden State under a bill Gov. Phil Murphy signed into law. Unlike the drive to legalize marijuana in New Jersey that stalled in the spring, hemp is enjoying a resurgence not seen in this country since Founding Fathers used hemp paper to draft the Declaration of Independence. [Read More](#) (NJ.com)

Canadian marijuana giant sees 'largest' CBD sales coming from US. Cronos Group predicts CBD customers in the U.S. will be the "largest contributor" to its sales over the next couple of years. But company executives cautioned investors that it's "too early to speculate" on how big the European market for CBD will become. The comments came as Cronos announced plans to spend \$300 million on acquiring four operating subsidiaries of Redwood Holding Group. [Read More](#) (Hemp Industry Daily)

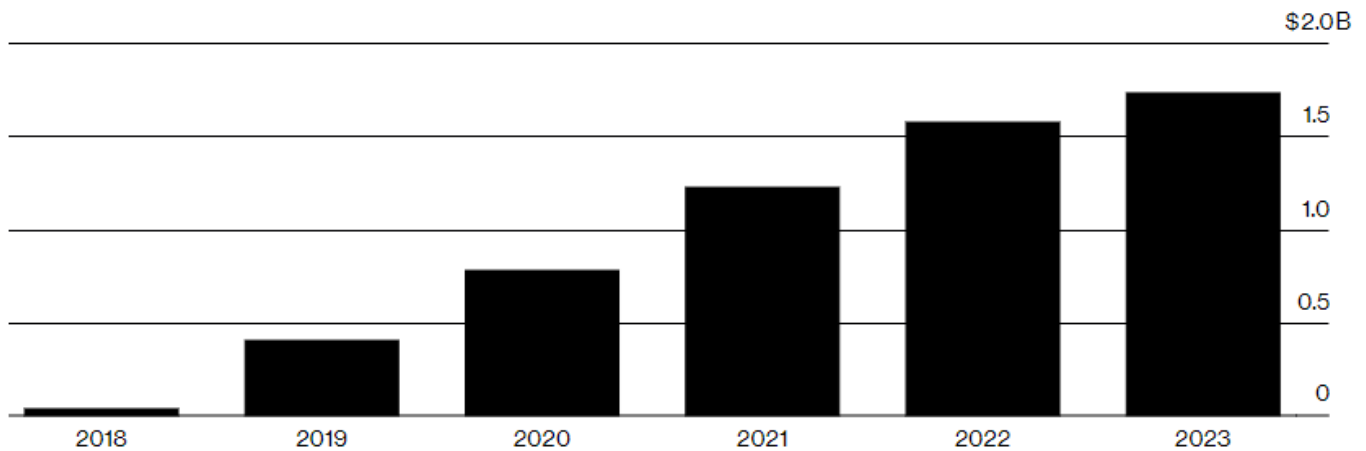
U.S. seed bank could bring new cultivars within five years. Hemp cultivars planned for development at a new seed bank under Cornell University in New York State, USA, could be ready for growers within five years, according to the University. Cornell is to house the USA's only industrial hemp seed bank at its AgriTech campus in Geneva, New York, with construction on the facility, officially called the "Industrial Hemp Germplasm Repository," underway. [Read More](#) (Hemp Today)

Hemp for animal feed: Economic potential waits out legal maneuvering. Given hemp's new legal status, many farmers and livestock producers want to explore cannabis for animal feed and the research that suggests its nutritional and developmental benefits. But they're facing market and legal uncertainties that are familiar to those making hemp products for people. [Read More](#) (Hemp Industry Daily)

Hemp building advocates in U.S. see a 'perfect storm'. With the U.S. construction industry valued at more than a trillion dollars per year, proponents say the hemp building sector can eventually grow to surpass CBD, which now leads all hemp sectors. "While hemp in construction is a very small niche in the U.S., it represents a perfect storm of economic opportunity and a great chance to help reverse climate change," said Eric McKee of Colorado-based Wnder LLC, a hemp builder and founding member of the USHBA. [Read More](#) (Hemp Today)

The CBD industry is betting that pets need to chill, too. In recent years, growth in the \$130 billion global pet market has been fueled by dog and cat owners' willingness to spend heavily on premium products, such as grain-free foods or organic treats. Companies are wagering that CBD will become the next profit-boosting premium ingredient. [Read More](#) (Bloomberg)

Chart 8: Estimated Size of the Pet CBD Market



Source: Intro-Blue, Brightfield Group, Bloomberg

PRODUCTS

Greenlane and Canopy announce exclusive U.S. distribution partnership for Storz & Bickel Vaporizers. [Greenlane Holdings \(GNLN\)](#), one of the largest global sellers of premium cannabis accessories, CBD and liquid nicotine products, announced a partnership with Canopy Growth Corporation for exclusive distribution of Storz & Bickel vaporizers throughout the U.S. [Read More](#) (Globe Newswire)

Arizona™ Beverages and Dixie Brands form strategic partnership to launch collection of THC-infused cannabis products. Dixie Brands (DXBRF) and AriZona, maker of the #1 selling iced tea in America, signed a binding letter of intent on Friday, August 2nd, 2019, to partner for the production, distribution and sale of cannabis-infused products containing tetrahydrocannabinol (THC). [Read More](#) (Newswire)

CONSUMER AND SOCIAL TRENDS

Cannabis jobs in the U.S. quadrupled since 2016. As legalization has gathered steam, the share of cannabis job postings on Indeed.com has risen nearly fourfold — from 231 per million in May 2016 to 915 per million in May 2019. Just in the past year, the share of cannabis postings is up 90%. Job seekers are jumping on the bandwagon, with cannabis-related searches rising 650% since January 2016. [Read More](#) (HiringLab.org)

Chart 9: Cannabis Jobs in the U.S. Quadrupled Since 2016



Source: Intro-Blue, Indeed, HiringLab.org

Outside Lands gets green light for pot sales on festival grounds. For the first time, San Francisco's largest summer music festival won approval for cannabis sales and a designated smoking area at the three-day event. "It's going to be a landmark moment for the end of prohibition," said Alex Fang, a co-founder of Sublime, an Oakland cannabis firm that sells infused mints and freeze pops at the festival. [Read More](#) (SF Chronicle)

Listen: What millennials really want from weed. According to Cy Scott, the co-founder and CEO of Headset, millennials seem to be buying the largest percentage of the pre-roll category, so purchasing a lot of single pre-rolls but also concentrates. Some of Headset's assumptions around that are related to pre-rolls being a relatively inexpensive product; you could buy a single-pack pre-roll for pretty cheap. So they are purchasing a lot of units of that, and then on the concentrate side it just goes to the higher potency products, which is very different than maybe you'd see out of the Generation X or the Baby Boomers that are looking for something that might not be as psychoactive or as potent. [Read More](#) (Green Entrepreneur)

Mike Tyson jumping into cannabis ring with resort, podcast. Tyson made the leap into the cannabis space with his ultra-extravagant, 40-acre cannabis resort Tyson Ranch set to be ready in 2020 and has a hit on his hands with his HotBoxin podcast where he talks with superstars like Vic Mensa, Wiz Khalifa and Snoop Dogg while smoking up. Plus his soon-to-be-released line of cannabis strains and CBD wellness products. Now the former heavyweight champ has announced his partnership with the Fan-Controlled Football League (FCFL) as an owner. [Read More](#) (Cannabis Aficionado)

RETAIL

Arkansas' 7th medical marijuana dispensary opens in Bentonville. Seven medical marijuana dispensaries are now open around the state of Arkansas, and the state's Medical Marijuana Commission says there are more on the way. It has been nearly three years since Arkansans voted in medical marijuana, and by the end of 2019, everything is expected to be fully operational. [Read More](#) (Marijuana Retail Report)

Study finds cannabis dispensaries reduce opioid deaths by 21%. In a study published in the journal Economic Inquiry, researchers found that the legalization of adult-use cannabis reduced opioid overdose deaths by 21%. The study, carried out by economists at the University of Massachusetts and Colorado State University, found that legalization had "particularly pronounced effects for synthetic opioids" such as fentanyl. [Read More](#) (Leafly)

INTERNATIONAL

Luxembourg to be first European country to legalize cannabis. Luxembourg has called on its EU neighbors to relax their drug laws as its health minister confirmed plans to become the first European country to legalize cannabis production and consumption. Residents over the age of 18 are expected to be able to buy the drug for recreational use legally within two years. The state will regulate production and distribution through a cannabis agency. [Read More](#) (The Guardian)

As Dutch coffeeshops decrease, illicit demand persists in the Netherlands. When coffeeshops were introduced in the early 1970s in an experimental harm-reduction programme, lawmakers never envisioned the scale of today's operations. There have been concerted efforts to reduce the number of coffeeshops in the Netherlands. Nationwide today, there are some 500-plus coffeeshops, compared to a peak of around 1,500-2,000 in the mid '90s. [Read More](#) (New Frontier Data)

Chart 10: Decline in Dutch Cannabis Coffeeshops



Ripe time to invest in South Africa's cannabis sector. It is staggering to think that forecasters have predicted that by 2025 the global cannabis industry will reach about \$146bn, with the total market value of the SA cannabis industry amounting to about \$1.8bn. These are the numbers being lobbied around, and SA's forward-thinking stance towards the five-pointed leaf sets it up nicely to become a major player in the international market. [Read More](#) (Business Live)

Supply issues lead to declining sales in Uruguay's recreational cannabis market. Years after legalization, supply issues continue to hinder the growth of the adult-use marijuana market in Uruguay, according to a new report by the Institute for the Regulation and Control of Cannabis (IRCCA). [Read More](#) (Marijuana Business Daily)

Brazilian regulators could soon approve cannabis cultivation. A health regulatory agency in Brazil could soon permit the country's first domestic cultivation of cannabis for medicinal use. It's hoped the move that could reduce the country's heavy reliance on internationally imported medical cannabis and open up the Brazilian market to cannabis companies worldwide. But since its initial unveiling, the new plan has attracted stiff opposition from a number of top-level sources, including psychiatrists and a top government minister. [Read More](#) (Analytical Cannabis)

German producer rebukes 'stop sell' order on hemp food oil. Veteran German player Hempro International GmbH & Co. KG is pushing back against local authorities in Braunschweig after a wholesale buyer of its HANF FARM branded hemp food oil was ordered to stop selling from his shop. [Read More](#) (Hemp Today)

CANNA SCIENCE – EXTRACTION, TESTING, BIOSYNTHESIS

Indiva to provide extraction services to TerrAscend. Indiva Limited (NDVAF) and TerrAscend (TRSSF) announced the signing of an agreement to partner on an extraction services program. Under the terms of the Agreement, Indiva will provide TerrAscend with extraction and refinement support at its state-of-the-art facility in London, Ontario. Indiva will be responsible for extraction and refinement services employing its 70-tonne ethanol extraction system and will return the final product to TerrAscend in bulk formulated oil, or in distillate form. [Read More](#) (Indiva)

Why cannabis extractors are bringing testing in-house. While a benefit to the health-conscious consumer, the increased scrutiny has been problematic for cannabis extractors – those that actually extract the coveted cannabinoids from plant materials. For these professionals, more tests can mean more time wasted waiting for results. And if a sample fails, the whole extraction process starts again. [Read More](#) (Analytical Cannabis)

A2LA Accredits Stillwater Laboratories Inc. to ISO/IEC 17025. A2LA announced the accreditation of Stillwater Laboratories Inc. to ISO/IEC 17025 for cannabis testing. Stillwater is based in Olney, Montana and is the first cannabis testing laboratory accredited by A2LA in the state. Stillwater is also the first laboratory to go through a dual assessment where both ISO/IEC 17025 accreditation and Americans for Safe Access (ASA) Patient Focused Certification were obtained. [Read More](#) (Extraction Magazine)

The business of terpenes. Research on terpenes, the lesser-known but equally vital chemical compounds of cannabis, has only just begun. These naturally occurring hydrocarbons are abundant in cannabis trichomes, adding unique qualities and benefits to the plant's effects as they work together in the human endocannabinoid system with THC, CBD and lesser-known cannabinoids, CBC, CBG, CBN, and their acidic forms: THCA, CBDA, CBCA, CBGA, and others. [Read More](#) (Cannabis Tech)

TECHNOLOGY

Headset, Pax Labs team up in marijuana data deal. Headset, a provider of data and analytics to the cannabis industry, announced Monday it entered into a partnership with Pax Labs, a consumer technology brand that designs and develops vaporizers. Among other benefits, the relationship will provide real-time insights that enable San Francisco-based Pax Labs and its partners to make better business decisions, according to the companies. [Read More](#) (Marijuana Business Daily)

IP

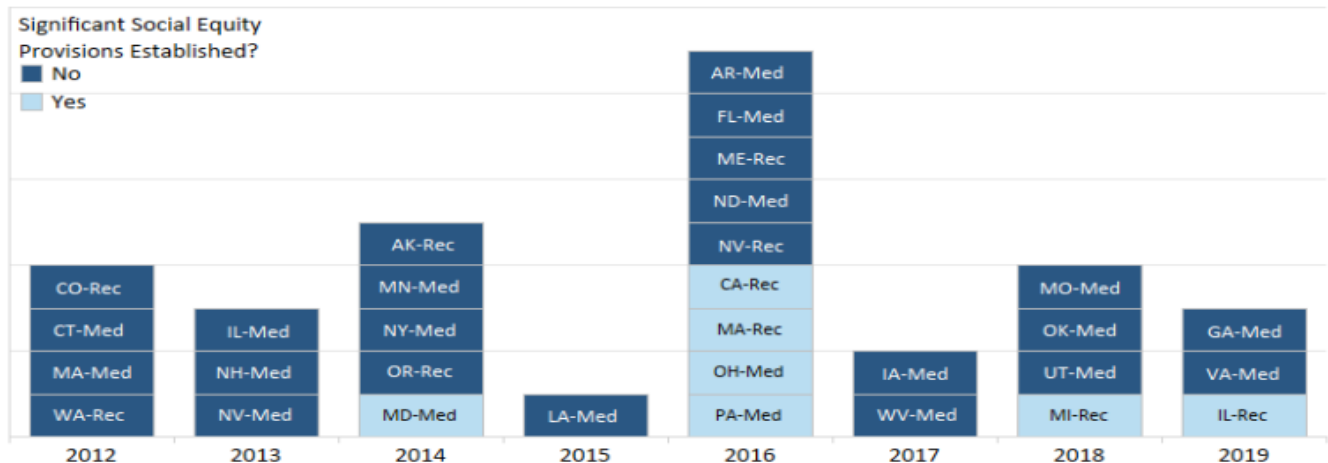
Geocann launches patent-protected cannabis formulations for rapid uptake edible and beverage products. Geocann has successfully commercialized a portfolio of food and beverage cannabis formulations that utilize the multi-patented VESIsorb® delivery system for dramatically improved absorption and bioavailability. Improved bioavailability directly translates to delivering higher cannabinoid blood plasma levels that ensure optimized therapeutic benefits. The company reports that the data supports Tmax is substantially shorter in cannabinoid products formulated with VESIsorb. [Read More](#) (Extraction Magazine)

New trademark litigation against "Stoney Patch" cannabis products calls out an industry trend of copycats. The latest case in the string of cannabis trademark litigation was filed in the Central District of California on July 19, 2019 by Mondelez Canada Inc., the owner of the Sour Patch brand of candy, against Stoney Patch. One novel component of the Stoney Patch case is that MCI alleges that Stoney Patch is actually in violation of California state law by selling candies that look like the SOUR PATCH brand of gummy candies because these candies are marketed to be appealing to children, something that is prohibited under the Medicinal and Adult Use Regulation and Safety Act (MAUCRSA). [Read More](#) (Marijuana Retail Report)

SUSTAINABILITY

Newer marijuana markets embrace social equity programs. Increased attention by lawmakers, regulators and the general public regarding lack of diversity in the cannabis industry prompted a growing number of states to include social equity provisions in their marijuana policies. Of the 18 states that legalized medical or recreational cannabis sales since 2016, six have taken considerable measures to boost diversity in their marijuana programs. [Read More](#) (Marijuana Business Daily)

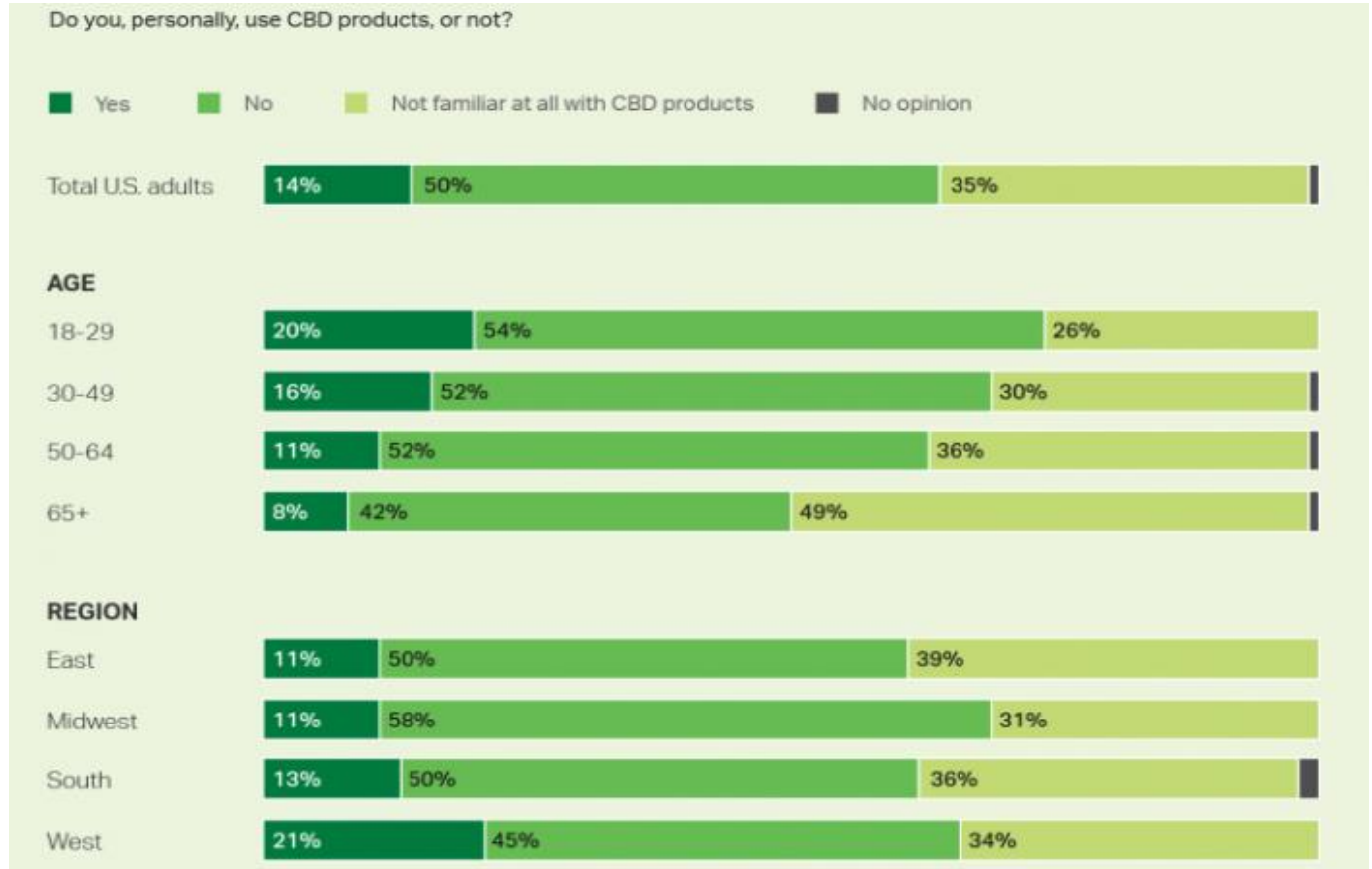
Chart 11: Status of Social Equity Provisions by State & Market – 2012-2019



Source: Intro-Blue, Marijuana Business Daily

CANNA FACTS

Chart 12: Americans' Use of CBD Products

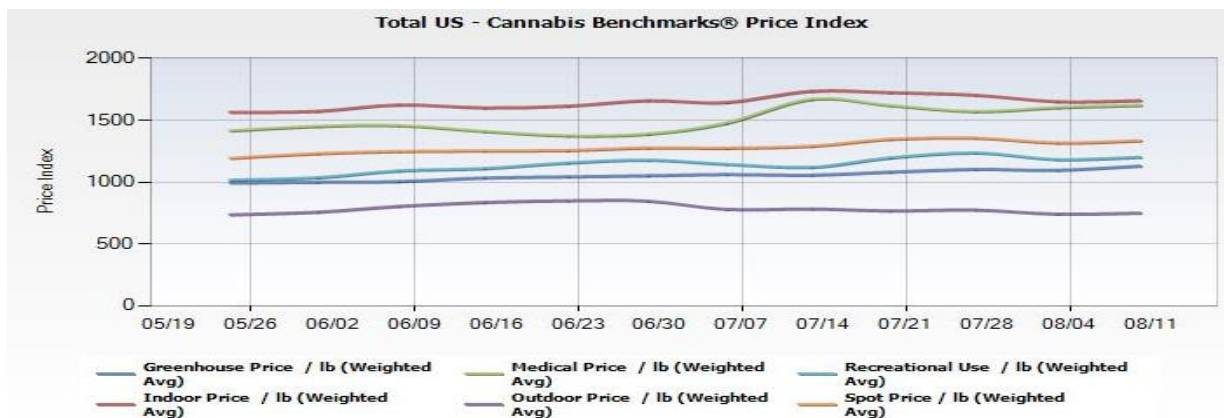


Source: Intro-Blue, Gallup

CANNA PRICES – WEEKLY TREND

Chart 13: U.S. Cannabis Market Prices

Commodity	August 9	August 2	\$ Change	% Change
Spot Price / lb (Weighted Avg)	\$1,337.00	\$1,320.00	\$17.00	1.3 %
Indoor Price / lb (Weighted Avg)	\$1,661.00	\$1,653.00	\$8.00	0.5 %
Greenhouse Price / lb (Weighted Avg)	\$1,133.00	\$1,099.00	\$34.00	3.1 %
Outdoor Price / lb (Weighted Avg)	\$753.00	\$745.00	\$8.00	1.1 %
Medical Price / lb (Weighted Avg)	\$1,623.00	\$1,605.00	\$18.00	1.1 %
Recreational Use / lb (Weighted Avg)	\$1,204.00	\$1,186.00	\$18.00	1.5 %



Source: Intro-Blue, Cannabis Benchmarks Price Index

Chart 14: U.S. Implied Forward Prices (Week Ending August 9, 2019)

Cannabis Benchmarks® U.S. Implied Forward Prices (Week Ending Aug 9, 2019)						
Delivery Month	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20
This Week's Forward Price	\$ 1,240	\$ 1,100	\$ 1,095	\$ 1,165	\$ 1,185	\$ 1,200
Last Week's Forward Price	\$ 1,240	\$ 1,100	\$ 1,095	\$ 1,165	\$ 1,185	\$ 1,200
Change	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Premium/Discount to Spot	-7.2%	-17.7%	-18.1%	-12.8%	-11.4%	-10.2%

Source: Intro-Blue, Cannabis Benchmarks Price Index











Chart 15: Canada Cannabis Market Prices

Cannabis Benchmarks Prices Estimates - Canada						
Week Ending	LP Average Selling Price	Excise Taxes*	CCSI**	Exchange Rate	CCSI	Weekly Chg
	C\$/gram	C\$/gram	C\$/gram	C\$ per US\$	US\$/pound	%
14-Jun	\$6.10	\$1.14	\$7.24	1.331	\$2,466	
21-Jun	\$5.83	\$1.13	\$6.96	1.331	\$2,370	-3.9%
28-Jun	\$6.11	\$1.14	\$7.25	1.315	\$2,500	4.2%
5-Jul	\$6.02	\$1.14	\$7.16	1.310	\$2,480	-1.1%
12-Jul	\$6.23	\$1.15	\$7.38	1.309	\$2,557	3.0%
19-Jul	\$5.93	\$1.14	\$7.07	1.305	\$2,458	-4.1%
26-Jul	\$5.79	\$1.13	\$6.92	1.312	\$2,391	-2.2%
2-Aug	\$6.15	\$1.14	\$7.29	1.318	\$2,510	5.5%
9-Aug	\$5.85	\$1.13	\$6.98	1.319	\$2,400	-4.3%

Source: Intro-Blue, Cannabis Benchmarks Price Index


CANNA BRANDS AND PRODUCTS RANKING – STATE IN FOCUS: WASHINGTON

Chart 16: Best-Selling Flower Brands and Products in Washington

	BRAND	PRODUCT	AVG. PRICE	SALES (30 DAY)
1		Dutchberry (Eighth) ARTIZEN CANNABIS	\$21.01	
2		Golden Pineapple Bong Buddies (2 Grams) PHAT PANDA	\$10.95	
3		OG Chem (Eighth) PHAT PANDA	\$23.36	
4		Dutchberry (Gram) ARTIZEN CANNABIS	\$6.60	
5		Wedding Cake (Eighth) LIFTED CANNABIS CO	\$24.24	











Source: Intro-Blue, Headset

Chart 17: Best-Selling Edibles Brands and Products in Washington

	BRAND	PRODUCT	AVG. PRICE	SALES (30 DAY)
1		Sativa Energizing Peppermint Mints 20-Pack (100mg) MR. MOXEY'S MINTS	\$19.00	
2		CBD/THC 30:1 Berry Fruit Jellies 10-Pack (300mg CBD,10mg THC) JOURNEYMAN	\$20.29	
3		CBD/THC 1:1 Balance Peppermint Mints 20-Pack (100mg CBD, 100mg THC) MR. MOXEY'S MINTS	\$22.25	
4		Marmas - Blue Raspberry 10-Pack (100mg) MAGIC KITCHEN	\$17.11	
5		Indica Relaxing Cinnamon Mints 20-Pack (100mg) MR. MOXEY'S MINTS	\$18.96	

Source: Intro-Blue, Headset

Chart 18: Best-Selling Concentrates Brands and Products in Washington

	BRAND	PRODUCT	AVG. PRICE	SALES (30 DAY)
1		Maui Wowie Wax (Gram) FORBIDDEN FARMS	\$7.53	
2		Lodi Dodi Wax (Gram) FORBIDDEN FARMS	\$6.11	
3		Regulator - Extreme OG Sugar Wax (Gram) SMOKEY POINT PRODUCTIONS (SPP)	\$8.53	
4		Regulator- Mother's Finest Wax (Gram) SMOKEY POINT PRODUCTIONS (SPP)	\$8.75	
5		God's Gift Wax (Gram) FORBIDDEN FARMS	\$6.75	

Source: Intro-Blue, Headset

Chart 19: Best-Selling Vapor Pens Brands and Products in Washington

	BRAND	PRODUCT	AVG. PRICE	SALES (30 DAY)
1		Blueberry Dream Cartridge (Gram) HELLAVATED	\$22.87	
2		Regulator - Strawberry Cough Cartridge (Gram) SMOKEY POINT PRODUCTIONS (SPP)	\$21.44	
3		Regulator Super Lemon Haze Cartridge (Gram) SMOKEY POINT PRODUCTIONS (SPP)	\$21.22	
4		Maui Wowie Cartridge (Gram) MFUSED	\$22.35	
5		Hellavated - Mango Dragon Distillate Cartridge (Gram) HELLAVATED	\$23.03	



Source: Intro-Blue, Headset

Chart 20: Best-Selling Beverage Brands and Products in Washington

	BRAND	PRODUCT	AVG. PRICE	SALES (30 DAY)
1		Volcanic Orange Mango (100mg) MAJOR	\$9.55	
2		Pink Lemonade (100mg) MAJOR	\$9.51	
3		Orange Cream Pie Soda (100mg) STONE COLD SODA	\$13.17	
4		Happy Apple – Infused Apple Cider (100mg) HAPPY APPLE	\$18.82	
5		Orange Cream Natural Craft Soda (100mg) OLALA	\$15.23	

Source: Intro-Blue, Headset

Chart 21: Best-Selling Tincture & Sublingual Brands and Products in Washington

	BRAND	PRODUCT	AVG. PRICE	SALES (30 DAY)
1		CBD:THC 5:1 Tincture (250mg CBD, 50mg THC, 1oz) GREEN REVOLUTION (FORMERLY ETHOS INNOVATES)	\$33.53	
2		CBD:THC:CBN 4:8:1 Beauty Sleep Tincture (40mg CBD, 80mg THC, 20mg CBN, 1oz) GREEN REVOLUTION (FORMERLY ETHOS INNOVATES)	\$23.43	
3		Deep Sleep Tincture (45mg CBD, 75mg THC) FAIRWINDS	\$22.00	
4		Journey - Sativa Tincture (100mg, 1oz) GREEN REVOLUTION (FORMERLY ETHOS INNOVATES)	\$19.52	
5		CBD:THC 1:1 Tincture (100mg CBD, 100mg THC) FAIRWINDS	\$26.52	

Source: Intro-Blue, Headset

CANNA EVENTS CALENDAR

Chart 22: Cannabis Company Events Calendar – Upcoming Conference Calls

Date	Company	Ticker	Web Access	Phone Dial-in
08/14/19 - 8:30 A.M. ET	Flower One	(CSE: FONE)/(OTC: FLOOF)	Webcast	1-888-231-8191
08/14/19 - 8:30 A.M. ET	Acreage Holdings	(CSE: ACRG.U)/(OTC: ACRGF)	Webcast	n/a
08/14/19 - 8:30 A.M. ET	Neptune Wellness Solutions	(TSX: NEPT)/(NASDAQ: NEPT)	Webcast	1-888-231-8191 password 3696157
08/14/19 - 8:30 A.M. ET	Jushi Holdings	(NEO: JUSH.B)	Webcast	1-877-407-0792
08/14/19 - 8:30 A.M. ET	Sundial Growers	(NASDAQ: SNDL)		1-800-319-4610
08/14/19 - 9:00 A.M. ET	The Green Organic Dutchman	(TSX: TGOD)/(US: TGODF)	Webcast	1-888 390-0546 passcode 37027015
08/14/19 - 10:00 A.M. ET	Charlotte's Web Holdings	(TSX:CWEB)/(OTC:CWBHF)	Webcast	1-888-231-8191 passcode 8685806
08/14/19 - 4:30 P.M. ET	Helix TCS	(OTC: HLIx)	n/a	1-866-342-8588
08/15/19 - 8:00 A.M. ET	Harvest Health & Recreation	(CSE: HARV)/(OTC: HRVSF)	Webcast	1-844-695-5522
08/15/19 - 8:30 A.M. ET	Canopy Growth	(TSX:WEED)/(NYSE:CGC)	Webcast	1-888-231-8191 passcode 5299923
08/15/19 - 8:30 A.M. ET	Ayr Strategies	(NEO:AYR.A)/(OTC:AYRSF)	Webcast	1-877-282-0546 passcode 5393692
08/15/19 - 10:00 A.M. ET	Trulieve	(CSE: TRUL)/(OTC: TCNNF)	Webcast	1-888-231-8191 passcode 9085490
08/20/19 - 9:00 A.M. ET	3 Sixty Risk Solutions	(CSE: SAFE)/(OTC: SAYFF)	n/a	1-877-221-6399
08/20/19 - 4:00 P.M. ET	Surna	(OTC: SRNA)	Webcast	1-973-528-0008 passcode 212852
08/21/19 - 5:00 P.M. ET	Cresco Labs	(CSE: CL)/(OTC: CRLBF)	Webcast	1-866-688-4235 passcode 3385937
08/21/19 - 5:00 P.M. ET	Indus Holdings	(CSE:INDS)	Webcast	1-877-407-0789
08/22/19 - 8:30 A.M. ET	Lift & Co	(TSXV: LIFT)	Webcast	1-866-211-3050 passcode 4079639
08/27/19 - 8:30 A.M. ET	iAnthus	(CSE: IAN)/(OTC: ITHUF)	n/a	1-888-231-8191
08/28/19 - 9:00 A.M. ET	Delta 9	(TSXV: DN)/(OTC: VRNDF)	n/a	1-888-886-7786 passcode 528211
08/28/19 - 5:00 P.M. ET	Green Thumb Industries	(CSE: GTII)/(OTC: GTBIF)	Webcast	1-877-273-8145 passcode 2278778
08/29/19 - 10:00 A.M. ET	MJardin Group	(CSE: MJAR)/(OTC: MJARF)	Webcast	1-888-254-3590 passcode 6287281
08/29/19 - 10:00 A.M. ET	WeedMD	(TSX-V:WMD)/(OTC:WDDMF)	n/a	1-800-319-4610 passcode 3544
08/29/19 - 5:00 P.M. ET	Curaleaf	(CSE: CURA)/(OTC: CURLF)	Webcast	1-877-407-9039 passcode 13693392
08/30/19 - 10:00 A.M. ET	Abacus Health Products	(CSE: ABCS)/(OTC: ABAHF)	Webcast	1-877-800-8397 passcode 6949749

Source: Intro-Blue, New Cannabis Ventures

Chart 23: Cannabis Company Events Calendar – Recent Conference Calls

Date	Company	Ticker	Replay
08/13/19 - 5:00 P.M. ET	Tilray	(NASDAQ: TLRY)	Webcast
08/13/19 - 11:00 A.M. ET	Village Farms International	(TSX:VFF)/(NASDAQ:VFF)	Webcast
08/13/19 - 9:30 A.M. ET	Medipharm Labs	(TSX: LABS)/(OTC: MEDIF)	Webcast
08/12/19 - 5:00 P.M. ET	Greenlane Holdings	(NASDAQ: GNLN)	Webcast
08/09/19 - 12:00 P.M. ET	Alcanna	(TSX: CLIQ)/(OTC: LQSIF)	1-800-408-3053 passcode 6146693

Source: Intro-Blue, New Cannabis Ventures

Chart 24: Cannabis IPO Pipeline

S. No	Company	Filing	Market	Description
1	AAA Medic Montreal	SEDAR	TSX-V	Quebec ACMPR Applicant
2	Avicanna	SEDAR	n/a	Colombian Cultivation and Cannabinoid R&D
3	Blackshire Capital	SEDAR	CSE	Invests in Private Cannabis Companies
4	Breath of Life International	SEDAR	TSX	Israeli Licensed Medical Cannabis Producer
5	HollyWeed North Cannabis	SEDAR	TSX-V	Canadian LP Focused on Processing and Ancillary Solutions
6	I.M.C. Holdings	SEDAR	CSE	Israeli Medical Cannabis License Holder
7	Innovate Phytotechnologies	SEDAR	CSE	Canadian Hemp Services Provider and ACMPR Applicant
8	Lifted Innovations	SEDAR	CSE	Cannabis accessories e-commerce company in U.S. and Canada
9	Lobo Genetics	SEDAR	TSX-V	Genetics Testing for Cannabis Consumers
10	ManifestSeven	SEDAR	CSE	California Retail and Distribution
11	Merrco Payments	SEDAR	TSX-V	Canadian Payments Processor Focused on Cannabis
12	Potbotics	SEDAR	CSE	U.S.-Based Data Aggregation and Technology
13	Province Brands	SEDAR	TSX-V	Canadian Developer of Cannabis Beverages
14	Southern Sun	SEDAR	TSX-V	Canadian Company Focused on Africa
15	Starling Brands	SEDAR	CSE	California Cannabis Operator
16	Terrace. Inc	SEDAR	TSX-V	Multi-Country Operator in Spain and Entering Uruguay and Portugal
17	The Hacienda Company	SEDAR	CSE	California Cannabis Brand Owner
18	Theracann International Benchmark	SEDAR	TSX-V	Panama-Based Provider of Technology, Operations and Analytics
19	Trichome Financial	SEDAR	TSX-V	Canada-Based Specialty Finance Company
20	urban-Gro	SEC	OTC	Colorado-Based Provider of Technology, Lighting and Supplies
21	Varianz	SEDAR	TSX-V	Colombian Applicant
22	Wikileaf	SEDAR	CSE	Cannabis Price Comparison Service
23	Xtraction Services	SEDAR	CSE	Provider of Cannabis Oil Processing Solutions in the U.S.

Source: Intro-Blue, New Cannabis Ventures

Chart 25: Cannabis Industry Events Calendar

S. No	Event Name	Place	Date
1	NCIA Illinois Industry Social	CHICAGO, IL	August 15, 2019
2	Benzinga Michigan Cannabis Capital Conference	DETROIT, MI	August 15, 2019
2	Carolinas Cannabis Convention	CHARLOTTE, NC	August 16 - 17, 2019
3	CannaGrow Expo	PALM SPRINGS, CA	August 17 - 18, 2019
4	Western U.S. Hemp Expo	PORTLAND, OR	August 19 - 20, 2019
5	NCIA Missouri Industry Social	ST. LOUIS, MO	August 20, 2019
6	Griffin Grower & Retailer Expo	WORCESTER, MA	August 21 - 22, 2019
7	NCIA Oklahoma Industry Social	OKLAHOMA	August 22, 2019
8	CannaCon Springfield	SPRINGFIELD, MA	August 23 - 24, 2019
9	The Future of Medical Hemp	POLAND	August 23 - 24, 2019
10	CannaOne BizCon + Expo	LAS VEGAS, NV	August 26 - 28, 2019
11	NCIA Texas Industry Social	AUSTIN, TX	August 27, 2019
12	CannaBiz Invest Asia	THAILAND	August 29 - 30, 2019
13	Cannabis Science Conference	PORTLAND, OR	September 4 - 6, 2019
14	MJBizCon International	TORONTO, ON	September 4 - 6, 2019
15	Southern Hemp Expo	FRANKLIN, TN	September 6 - 7, 2019
16	NCIA Northern California Cannabis Caucus	SAN FRANCISCO, CA	September 10, 2019
17	Cannabinoid-Derived Pharmaceuticals Summit	BOSTON, MA	September 10 - 12, 2019
18	CANNAMED - 2019	OSAKA, JAPAN	September 11 - 12, 2019
19	Cannabiz Latino Hub	BOGOTÁ, CO	September 12, 2019
20	Grow Up Conference	NIAGARA FALLS, ON	September 12 - 14, 2019
21	Ohio Marijuana Expo	COLOMBUS, OH	September 14, 2019
22	NECANN New Jersey Cannabis Convention	ATLANTIC CITY, NJ	September 14 - 15, 2019
23	ICBC Vancouver 2019	VANCOUVER, BC	September 15 - 16, 2019
24	NCIA Colorado Cannabis Caucus	DENVER, CO	September 17, 2019
25	NCIA Midwest Cannabis Caucus	ANN ARBOR, MI	September 19, 2019
26	Chicago's First Industrial Cannabis Expo	ROSEMONT, IL	September 19 - 20, 2019
27	Lucky Leaf Expo	DALLAS, TX	September 21 - 22, 2019
28	The Infused Products Conference	LOS ANGELES, CA	September 23 - 24, 2019
29	CannMed 2019	PASADENA, CA	September 23 - 24, 2019
30	Cannabis World Congress and Business Expo	LOS ANGELES, CA	September 25 - 28, 2019
31	Griffin Grower & Retailer Expo	LANCASTER, PA	September 25 - 26, 2019
32	The Science of Cannabis 2019	WEBINAR	September 26, 2019
33	Cannabis World Congress and Business Expo	LOS ANGELES, CA	September 26 - 28, 2019
34	CanEx Jamaica Business Conference & Expo	JAMAICA	September 26 - 28, 2019
35	2nd Annual Medical Cannabis Conference	CHARLESTON, SC	September 27, 2019
36	Avantpay 19	WASHINGTON, D.C.	Sept. 30 – Oct. 01, 2019
37	Latin American Cannabis Symposium	COLOMBIA	Sept. 30 – Oct. 01, 2019
38	Cannafarm Con	SAN DIEGO, CA	October 1 - 2, 2019
39	Cannabis Quality Conference	SCHAUMBURG, IL	October 1 - 3, 2019
40	Denver Marijuana Management Symposium	DENVER, CO	October 1 - 3, 2019
41	Future Cannabis Strategies North America 2019	TORONTO, ON	October 2 - 3, 2019
42	Arcview Investor Group Forum NYC	NEW YORK, NY	October 2 - 4, 2019
43	NECANN Maine Cannabis Convention	PORTLAND, ME	October 5 - 6, 2019
44	West Michigan Cannabis Expo	GRAND RAPIDS, MI	October 5 - 6, 2019
45	California Cannabis Business Conference	LONG BEACH, CA	October 8 - 9, 2019
46	CBD Expo Tour Mountain	DENVER, CO	October 11 - 12, 2019
47	Commercial Cannabis Conference & Expo	DETROIT, MI	October 11 - 12, 2019
48	NECANN Convention	PROVIDENCE, RI	October 12, 2019
49	RAD Expo	PORTLAND, OR	October 23 - 24, 2019
50	Cannabis World Congress and Business Expo	BOSTON, MA	October 24 - 26, 2019
51	European American Cannabis Business Conference	LETNANY, PRAGUE	October 31, 2019

52	Cannafest	LETNANY, PRAGUE	November 1 - 3, 2019
53	Cannabis & Hemp Expo	WINNIPEG, MB	November 2 - 3, 2019
54	Evolve Health and Wellness Expo	VANCOUVER, BC	November 8 - 9, 2019
55	Analytical Cannabis Expo Europe 2019	LONDON, UK	November 12, 2019
56	Ark-La-Tex Cannabis Business Expo	LITTLE ROCK, AR	November 13 - 14, 2019
57	Canna-Pharma 2019	LA JOLLA, CA	November 13 - 14, 2019
58	CBD Expo Tour East	ORLANDO, FL	November 14 - 15, 2019
59	The Cannabis Consumer & Business Expo	TORONTO, ON	November 22 - 24, 2019
60	Cannabis & Hemp Expo	OTTAWA, ON	November 23 - 24, 2019
61	CBD Expo Tour West	SAN DIEGO, CA	December 5 - 6, 2019
62	Arcview Investor Group Forum Vegas	LAS VEGAS, NV	December 8 - 10, 2019
63	MJBizCon	LAS VEGAS, NV	December 11 -13, 2019
64	Seed to Sale Show	BOSTON, MA	February 18 - 19, 2020
65	The Cannabis Consumer & Business Expo	MONTREAL, QC	April 10 - 12, 2020
66	Cannabis Conference 2020	LAS VEGAS, NV	April 21 - 23, 2020
67	MJBizConNEXT Executive Summit	NEW ORLEANS, LA	June 11 - 12, 2020

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

CANNA INDEX

Chart 26: U.S Cannabis Index

Constituents	24
% Change	-2.30%
Open Price	94.91
Total Volume	8.90 m
52 Week High	137.94
52 Week Low	79.80



Source: Intro-Blue, The Marijuana Index

Chart 27: Canada Cannabis Index

Constituents	23
% Change	-1.69%
Open Price	433.18
Total Volume	39.73 m
52 Week High	906.87
52 Week Low	403.95



Source: Intro-Blue, The Marijuana Index

COMPARABLES & COMPANY PROFILE LINKS

						Shares		Price Performance			
						Out	Daily Vol	% to High	% from Low	% in High - Low	% YTD
Peer Set											
Canadian LP - Cultivation, Processing (and Dispensing)											
1	CANOPY GROWTH CORP	CGC	34.16	11,813	9,343	346	0.7%	73%	-28%	28%	27%
2	AURORA CANNABIS INC	ACB	6.68	6,793	6,842	1,017	0.9%	88%	-39%	31%	35%
3	CRONOS GROUP INC	CRON	13.95	4,689	2,915	336	1.2%	80%	-60%	43%	34%
4	HEXO CORP	HEXO	4.92	1,262	1,147	257	1.3%	71%	-39%	35%	43%
5	SUNDIAL GROWERS INC.	SNDL	10.54	883	975	84	1.2%	25%	-27%	52%	
6	TERRASCEND CORP	TRSSF	5.23	602	814	150	0.0%	99%	-42%	30%	-6%
7	GREEN ORGNC DUTCHMN HLD	TGODF	2.77	762	596	275	0.2%	185%	-42%	18%	53%
8	SUPREME CANNABIS CO INC	SPRWF	1.09	354	355	325	0.2%	87%	-22%	20%	14%
9	ZENABIS GLOBAL INC	ZBISF	1.06	215	281	203	0.0%	187%	-5%	2%	
10	FLOWR CORP (THE)	FLWPF	2.67	141	155	53	0.4%	136%	-44%	24%	-12%
11	HERITAGE CANNABIS HLDGS CORP	HERTF	0.33	140	133	425	0.0%	65%	-67%	51%	193%
12	48NORTH CANNABIS CORP	NCNNF	0.73	123	109	168	0.0%	78%	-52%	40%	74%
13	AGRAFLORA ORGANICS INTL INC	PUFXF	0.22	106	84	483	0.1%	191%	-72%	27%	33%
14	EVE & CO INC	EEVVF	0.31	75	77	240	0.1%	60%	-55%	48%	82%
15	RUBICON ORGANICS INC	ROMJF	1.97	65	76	37	0.0%	33%	-49%	60%	36%
16	SPROUTLY CANADA INC	SRUTF	0.38	62	66	161	0.1%	122%	-51%	29%	28%
17	DELTA 9 CANNABIS INC	VRNDF	0.76	47	53	62	0.1%	143%	-14%	9%	-16%
18	VIVO CANNABIS INC	VVCIF	0.34	93	50	271	0.1%	347%	-8%	2%	-34%
19	JAMES E. WGNR CLTIVION CORP	JWCAF	0.49	39	39	79	0.0%	206%	-29%	12%	-5%
20	GTEC HOLDINGS LTD	GGTTF	0.26	29	32	112	0.0%	363%	-61%	14%	-28%
21	BELEAVE INC	BLEVF	0.05	22	30	419	0.0%	372%	-24%	6%	-29%
22	SUGARBUD CRAFT GROWERS CORP	SUGR-CA	0.12	36	25	222	0.4%	67%	-67%	50%	242%
23	INDIVA LTD	NDVAF	0.37	24	21	65	0.2%	105%	-41%	28%	29%
24	LOTUS VENTURES INC	LTTSF	0.24	19	19	83	0.0%	57%	-100%	64%	236%

25	GROWN ROGUE INTL INC	NVSIF	0.14	10	11	72	0.0%	322%	-48%	13%	-51%
26	NORTH BUD FARMS INC	NOBDF	0.21	11	11	56	0.0%	72%	-30%	29%	23%
27	EXPERION HOLDINGS LTD	EXPFF	0.21	20	13	97	0.0%	304%	-91%	23%	-46%
28	MATICA ENTERPRISES INC	MQPXF	0.05	15	9	315	0.0%	413%	-17%	4%	-26%
29	BLISSCO CANNABIS CORP	BLIS-CA	0.24		26	107	0.0%				
30	TERRANUEVA CORP.	TEQ-CA	0.39	25	26	63	0.0%	-88%	-99%	912%	
31	LEANLIFE HEALTH INC	LNLHF	0.05	0				86%	-5%	6%	
32	SPEAKEASY CANNABIS CLUB LTD	EASY-CA				87	0.1%				

CBD/Hemp

33	CHARLOTTE'S WEB HLDGS INC	CWBHF	21.73	864	2,274	108	0.6%	16%	-63%	79%	-28%
34	CV SCIENCES INC	CVSI	3.35	332	324	99	1.0%	175%	-18%	9%	-22%
35	ELIXINOL GLOBAL LTD	ELLXF	1.86	256	226	138	0.1%	128%	-49%	28%	3%
36	VERITAS FARMS INC	SSWH	1.49	181	182	121	0.1%	54%	-87%	62%	352%
37	CBDMD INC (LEVEL BRANDS)	YCBD	5.02	138	132	27	1.1%	69%	-49%	42%	62%
38	EARTH SCIENCE TECH INC	ETST	0.79	41	41	52	0.0%	210%	-62%	23%	0%
39	HEMPCO FOOD & FIBER INC	HMPFF	0.57	35	40	62	0.0%	167%	-13%	7%	-24%
40	ALTERNATE HEALTH CORP	AHGIF	0.17	13	32	75	0.0%	268%	-17%	6%	-49%
41	HEMP INC	HEMP	0.01	4	19	274	5.5%	309%	-5%	2%	-65%
42	KALYTERA THERAPEUTICS	KALTF	0.03	17	17	497	0.0%	307%	-27%	8%	-29%
43	ISODIOL INTERNATIONAL INC	ISOLF	0.31	13	17	42	0.3%	1334%	-24%	2%	-67%
44	EUREKA 93	LXLLF	0.79	58	15	5	0.1%	4168%	-98%	2%	33%
45	MAPLE LEAF GREEN WORLD INC	MGWFF	0.08	11	13	149	0.0%	575%	-14%	2%	-25%
46	NATURALLY SPLENDID ENTPRS	NSPDF	0.10	11	13	108	0.0%	196%	-33%	14%	5%
47	APPLIED BIOSCIENCES CORP	APPB	0.65	9	8	11	0.0%	354%	-15%	4%	-35%
48	GLOBAL HEMP GROUP INC	GBHPF	0.05	9	9	188	0.0%	267%	-31%	10%	-51%
49	NEWLEAF BRANDS INC	NWGFF	0.71	5	7	8	2.3%	669%	-64%	9%	-63%
50	PHIVIDA HLDGS INC	PHVAF	0.28	25	5	42	0.0%	272%	-15%	5%	51%
51	EASTWEST BIOSCIENCE INC	EAST-CA	0.04	2	3	51	0.2%	615%	-9%	2%	-61%
52	REVIVE THERAPEUTICS LTD	RVVTF	0.05	3	2	72	0.0%	295%	-58%	17%	-33%

53	GRIDIRON BIONUTRIENTS INC	GMVP	0.01	1	1	135	0.0%	2009%	-80%	4%	-84%
54	CBD OF DENVER INC.	CBDD	0.00	0	0	84	1.8%	483%	-58%	11%	-65%
55	EMPOWER CLINICS INC	EPWCF	0.09	7	0	3	0.1%	205%	-86%	30%	4017%
56	EVIANA HEALTH CORP	EVNNF	0.31	5				315%	-31%	9%	-31%

Diversified

57	ALTRIA GROUP INC	MO	46.81	87,446	114,924	1,868	0.2%	41%	-9%	19%	-5%
58	CONSTELLATION BRANDS	STZ	196.29	32,827	51,342	189	0.4%	17%	-23%	58%	22%
59	AUXLY CANNABIS GROUP INC	CBWTF	0.71	423	375	593	0.2%	76%	-38%	33%	8%
60	GREEN GROWTH BRANDS	GGBXF	1.61	300	317	207	0.1%	224%	-89%	28%	-58%
61	MJARDIN GROUP INC	MJARF	0.93	58	149	62	0.0%	616%	-17%	3%	-76%
62	HARVEST ONE CANNABIS INC	HRVOF	0.48	77	84	214	0.0%	94%	-50%	35%	20%
63	RAVENQUEST BIOMED INC	RVVQF	0.37	45	56	123	0.0%	132%	-27%	17%	12%
64	NUTRITIONAL HIGH INTL INC	SPLIF	0.11	35	42	309	0.0%	164%	-14%	8%	-42%
65	STEM HLDGS INC	STMH	1.00	39	35	39	0.2%	390%	-15%	4%	-50%
66	MYM NUTRACEUTICALS INC	MYMMF	0.24	34	32	140	0.1%	371%	-27%	7%	-36%
67	MCIG INC	MCIG	0.06	32	32	517	0.1%	461%	-20%	4%	-58%
68	MJ HOLDINGS INC	MJNE	0.42	30	28	71	0.0%	1138%	0%	0%	-60%
69	NEXT GREEN WAVE HLDGS INC	NXGWF	0.19	27	22	121	0.1%	451%	-9%	2%	-11%
70	INDIA GLOBALIZATION CAPITAL	IGCC	1.09	43	22	40	0.8%	1238%	-77%	6%	289%
71	LIFESTYLE DELIVERY SYSTEMS	LDSYF	0.18	25	16	120	0.0%	208%	-17%	8%	-6%
72	1933 INDUSTRIES INC	TGIFF	0.28	72	13	51	0.3%	89%	-22%	20%	450%
73	FUTURE FARM TECHNOLOGIES INC	FFRMF	0.07	11	13	165	0.2%	608%	-18%	3%	-52%
74	ROTO-GRO INTL LTD	RGI-ASX	0.11	15	12	130	0.1%	251%	-24%	9%	-51%
75	INTERNATIONAL CANNABRANDS IN	GEATF	0.03	6	7	13	0.4%	1012%	0%	0%	892%
76	ACACIA DIVERSIFIED HLDGS INC	ACCA	0.06	2	2	24	0.0%	445%	-60%	12%	-49%
77	AMERICAN CANNABIS INNOVATIONS CONGLOMERATED	PURA	0.05	26	1	0		430%	-49%	10%	
78	INTERNATIONAL ENDEAVORS CORP	IDVV	0.01	0	1	14	1.1%	1531%	-38%	2%	-60%
79	MPX INTL. CORPORATION	MPXOF	0.36	47				76%	-38%	33%	
80	MJ VENTURE PARTNERS, INC. (INVEST INC.)	MJVP	0.49	0				202%	-99%	33%	1134%

Downstream - Distribution/Marketing/Retail/Delivery

81	ALCANNA INC	LQSIF	4.71	175	478	37	0.0%	88%	-38%	30%	52%
82	MEDMEN ENTERPRISES INC	MMNFF	2.07	345	476	167	0.7%	266%	-17%	6%	-27%
83	ORIGIN HOUSE	ORHOF	5.76	385	381	67	0.2%	69%	-44%	39%	21%
84	PLANET 13 HLDGS INC	PLNHF	2.07	128	232	117	0.8%	30%	-76%	71%	0%
85	GREENLANE HOLDINGS INC	GNLN	7.63	76	161	10	2.1%	280%	-4%	1%	
86	NATIONAL ACCESS CANNABIS CORP.	NACNF	0.39	65	79	168	0.0%	158%	-10%	6%	2%
87	DIONYMED BRANDS INC	HMDEF	1.07	22	54	20	0.3%	199%	-88%	31%	-62%
88	GSRX INDUSTRIES INC	GSRX	0.55	32	38	59	0.0%	300%	-9%	3%	-66%
89	INNER SPIRIT HLDGS LTD	INSHF	0.14	0	34	193	0.0%	95%	-34%	27%	-100%
90	WILDFLOWER BRANDS INC	WLDF	0.35	23	29	68	0.0%	226%	-97%	30%	-14%
91	DRIVEN DELIVERIES INC	DRVD	0.66	28	28	43	0.0%	793%	-96%	11%	574%
92	CHOOM HOLDINGS INC	CHOOF	0.32	58	24	70	0.3%	213%	-12%	5%	163%
93	HIGH HAMPTON HLDGS CORP	HHPHF	0.18	19	18	104	0.0%	167%	-35%	17%	2%
94	DIEGO PELLICER WORLDWIDE INC	DPWWD	0.01	1	10	322	0.5%	2631%	-13%	0%	-99%
95	ROCKY MTN HIGH BRANDS INC	RMHB	0.07	8	8	106	0.4%	358%	-38%	10%	-66%
96	SMOKE CARTEL INC	SMKC	0.32	7				1412%	0%	0%	-71%
97	HIGH TIDE INC	HITI-CA				199	0.0%				

Extraction, Genetics, Canna Science, etc.

98	MEDIPHARM LABS CORP	MEDIF	4.83	627	625	130	0.3%	17%	-81%	83%	286%
99	NEPTUNE WELLNESS SOLUTION IN	NEPT	4.96	458	397	81	1.4%	32%	-51%	61%	122%
100	VALENS GROWWORKS CORP	VGWCF	2.90	270	221	93	0.1%	26%	-72%	73%	163%
101	ENWAVE CORP	NWVCF	1.78	197	188	111	0.1%	18%	-50%	74%	82%
102	PLUS PRODUCTS INC	PLPRF	3.46	84	130	35	0.1%	74%	-27%	27%	-22%
103	RADIANT TECHNOLOGIES	RDDTF	0.55	145	126	264	0.0%	88%	-40%	31%	1%
104	WORLD-CLASS EXTRACTIONS	PUMP-CA	0.10	59	29	451	0.0%	59%	-46%	44%	2%
105	CANNABIS ONE (METROPOLITAN ENERGY CORP)	CBIS-CA	0.36	26	25	73	0.0%	32%	24%	-293%	
106	QUADRON CANNATECH CORP	QUDCF	0.20	0	13	72	0.0%	36%	-64%	64%	-100%
107	CANNAPOWDER INC	CAPD	0.99	12	12	12	0.0%	405%	-94%	19%	-1%

108	AREV BRANDS INTL LTD	AREVF	0.19	0	11	53	0.0%	60%	-49%	45%	
109	MICRON WASTE TECHNOLOGIES IN	MICWF	0.14	10	7	79	0.0%	257%	-4%	1%	-37%
110	HALO LABS INC	AGEEF	0.36	3	5	9	3.3%	89%	-100%	53%	57%
111	NEUTRISCI INTERNATIONAL INC	NRXCF	0.04	5	4	110	0.0%	370%	-7%	2%	-19%
112	KALI INC	KALY	0.01	1	2	266	1.1%	670%	-96%	13%	-77%
113	ALTERNET SYSTEMS INC	ALYI	0.01	1	1	117	1.2%	813%	-46%	5%	-1%
114	ESENSE-LAB LTD	ESE-ASX	0.02	3				600%	-32%	5%	-7%
115	CANNA-V-CELL SCIENCES INC	CNVC-CA				97	0.1%				
116	CLS HOLDINGS USA INC	CLSH-CA				126	0.0%				
117	NEXTLEAF SOLUTIONS LTD	OILS-CA									

Input Materials - Nutrients, Hydroponic Equipment, etc.

118	SCOTTS MIRACLE-GRO CO	SMG	111.82	6,205	8,100	55	0.7%	3%	-48%	95%	82%
119	GROWGENERATION CORP	GRWG	4.98	177	178	36	0.9%	4%	-59%	93%	121%
120	MARRONE BIO INNOVTIONS	MBII	1.39	154	173	111	0.1%	54%	-21%	28%	-5%
121	GROWLIFE INC	PHOT	0.01	22	26	3,760	0.7%	293%	-13%	4%	-18%
122	SURNA INC	SRNA	0.07	16	15	228	1.2%	152%	-70%	32%	-3%
123	SHARC INTL SYS INC	INTWF	0.10	3	8	39	0.0%	343%	-39%	10%	-71%
124	AFFINOR GROWERS INC	RSSFF	0.02	2				382%	-49%	11%	641%

Medical Cannabis

125	ABBVIE INC	ABBV	65.11	96,257	128,501	1,478	0.4%	54%	-3%	5%	-29%
126	TILRAY INC	TLRY	45.90	3,698	4,569	97	0.9%	554%	-48%	8%	-35%
127	GW PHARMACEUTICALS PLC	GWPH	159.74	4,907	4,391	31	1.5%	23%	-44%	66%	64%
128	APHRIA INC	APHA	6.92	1,737	1,716	251	1.5%	144%	-46%	24%	22%
129	ARENA PHARMACEUTICALS INC	ARNA	53.37	2,659	1,712	50	1.8%	21%	-40%	66%	37%
130	HARVEST HEALTH & RECREATION	HRVSF	5.63	531	1,693	311	0.1%	93%	-99%	52%	-67%
131	GREEN THUMB INDUSTRIES INC	GTBIF	8.65	918	1,417	172	0.2%	189%	-26%	12%	-34%
132	TRULIEVE CANNABIS CORP	TCNNF	9.83	74	1,167	115	0.2%	114%	-32%	22%	-71%
133	CARA THERAPEUTICS INC	CARA	23.39	1,086	975	46	1.2%	18%	-48%	73%	80%
134	ORGANIGRAM HOLDINGS INC	OGI	5.58	871	843	156	0.4%	51%	-47%	48%	56%

135	ITEM 9 LABS CORP	INLB	3.73	235	548	147	0.0%	125%	-60%	32%	-69%
136	CORBUS PHARMACEUTICALS HLDGS	CRBP	6.11	395	312	65	1.9%	49%	-24%	33%	5%
137	PHARMACIELO LTD	PHCEF	4.41	276	276	63	0.0%	126%	-31%	20%	
138	EMERALD HEALTH THERAPEUTICS	EMHTF	1.68	245	240	146	0.2%	168%	-18%	10%	-19%
139	ALEAFIA HEALTH INC	ALEAF	0.91	247	230	272	0.2%	298%	-45%	13%	-13%
140	CANNTTRUST HLDGS INC	CTST	2.22	313	214	106	6.9%	439%	-16%	3%	-38%
141	22ND CENTURY GROUP INC	XXII	1.92	241	196	126	1.7%	72%	-42%	37%	-23%
142	MEDICAL MARIJUANA INC	MJNA	0.05	173	183	3,156	0.7%	119%	-29%	20%	-27%
143	ZYNERBA PHARMACEUTICALS INC	ZYNE	11.00	255	167	23	4.2%	50%	-75%	60%	270%
144	LIBERTY HEALTH SCIENCES INC	LHSIF	0.40	135	154	342	0.2%	223%	-11%	5%	-42%
145	KHIRON LIFE SCIENCES CORP	KHRNF	1.58	162	135	102	0.1%	108%	-57%	35%	41%
146	WEEDMD INC	WDDMF	1.26	121	131	96	0.1%	55%	-42%	44%	30%
147	CANN GROUP LTD	CNGGF	1.27	180	129	142	0.0%	70%	-17%	19%	-14%
148	FSD PHARMA INC	FSDDF	0.09	138	125	1,506	0.0%	856%	-13%	1%	-57%
149	VIREO HEALTH INTERNATIONAL	VREO-CA	1.97	217	125	75	0.0%	-88%	-97%	1140%	2397%
150	CANSORTIUM INC	CNTMF	1.28	78	105	64	0.1%	95%	-22%	19%	
151	BOTANIX PHARMA LTD	BOT-ASX	0.15	141	103	774	0.6%	38%	-68%	64%	269%
152	CURE PHARMACEUTICAL HLDG COR	CURR	3.93	171	103	26	0.2%	48%	-70%	59%	338%
153	TPI/PALLA PHARMA LTD	TPE-ASX	0.84	68	82	81	0.0%	38%	-23%	38%	3%
154	LEXARIA BIOSCIENCE CORP	LXRP	0.85	67	65	79	0.1%	164%	-29%	15%	-9%
155	TETRA BIO-PHARMA INC	TBPMF	0.30	63	62	210	0.1%	269%	-41%	13%	-52%
156	AUSCANN GROUP HLDGS LTD	ACNNF	0.29	91	62	317	0.0%	196%	-23%	11%	-26%
157	BENCHMARK BOTANICS INC	BHHKF	0.35	50	50	143	0.0%	45%	-100%	69%	102%
158	PIVOT PHARMACEUTICALS INC	PVOTF	0.27	47	50	171	0.0%	98%	-94%	49%	27%
159	AXIM BIOTECHNOLOGIES INC	AXIM	0.68	42	46	62	0.1%	309%	-32%	9%	-9%
160	THC GLOBAL GROUP LTD	HDRPF	0.35	48	43	136	0.0%	57%	-21%	27%	2%
161	CRESO PHARMA	CPH-ASX	0.30	46	43	152	0.1%	61%	-29%	33%	-12%
162	MEDLAB CLINICAL LTD	MDBBF	0.25	54	42	215	0.0%	40%	0%	0%	-19%

191	ORION NUTRACEUTICALS INC	ORI-CA				47	0.0%				
192	CANN GLOBAL LIMITED	ASX-CGB									
193	CANNTAB THERAPEUTICS LTD	TLFTF	0.40	10				310%	-38%	11%	-44%
Real Estate & Investors											
194	COMPASS DIVERSIFIED HOLDINGS	CODI	18.67	1,118	1,836	60	0.2%	8%	-38%	83%	50%
195	INNOVATIVE INDUSTRIAL PPTYS	IIPR	107.23	1,212	1,174	11	2.8%	30%	-69%	69%	136%
196	CANOPY RIVS INC	CNPOF	2.08	321	319	191	0.1%	251%	-16%	6%	-26%
197	FIRE & FLOWER HOLDINGS CORP.	FFLWF	1.12	134	133	119	0.2%	34%	-38%	53%	
198	CANNEX CAPITAL HOLDINGS INC	CNXXF	0.62	75	118	184	0.1%	262%	-39%	13%	-40%
199	CANNABIS STRATEGIC VENTURES	NUGS	0.32	55	99	313	0.0%	1786%	-21%	1%	-91%
200	AUSTRALIS CAPITAL INC	AUSCF	0.66	86	72	143	0.1%	315%	-40%	11%	12%
201	C21 INVTS INC	CXXI-CA	0.71	54	47	2	0.0%	174%	158%	-938%	
202	TARGET GROUP INC	CBDY	0.09	43	42	460	0.0%	219%	-76%	26%	-6%
203	INVICTUS MD STRATEGIES CORP	IVITF	0.28	34	41	125	0.0%	558%	-16%	3%	-51%
204	GENERAL CANNABIS CORP.	CANN	0.97	38	39	39	1.8%	365%	-48%	12%	-35%
205	LGC CAPITAL LTD	LGGCF	0.07	35	38	524	0.0%	348%	-100%	22%	-46%
206	CROP INFRASTRUCTURE CORP	CRXPF	0.13	8	23	165	0.1%	324%	-4%	1%	-77%
207	LEVIATHAN CANNABIS GP INC	LVCNF	0.21	20	21	95	0.0%	867%	-100%	10%	
208	CORDOVACANN CORP	LVRLF	0.32	13	13	41	0.0%	525%	-34%	6%	-57%
209	NABIS HOLDINGS INC.	INNPF	0.16	15	13	95	0.1%	404%	-24%	6%	
210	VENTURA CANNABIS & WELLNESS	CVHIF	0.27	9	12	35	0.0%	172%	-36%	17%	17%
211	FINCANNA CAPITAL CORP	FNNZF	0.10	9	9	99	0.0%	195%	-40%	17%	19%
212	REDFUND CAP CORP	PNNRF	0.07	3	3	47	0.0%	1708%	-86%	5%	-76%
213	LIBERTY LEAF HOLDINGS LTD	LIBFF	0.07	2	1	31	0.0%	243%	-13%	5%	-7%
214	CANADABIS CAPITAL INC	CANB-CA	0.23	7	0	5	0.2%	123%	-47%	27%	244%
215	MMJ GROUP HLDGS LTD	MMJF	0.17	39	(1)	227	0.0%	68%	-41%	38%	10%
216	BELGRAVIA CAPITAL INTL INC	BLGVF	0.02	5	(1)	237	0.0%	100%	-71%	42%	28%
217	VENCANNA (TOP STRIKE RES CORP)	TPPRF	0.05	1	(3)	16	0.0%	197%	-44%	18%	-65%
218	SOL GLOBAL INVESTMENTS CORP	SOLCF	1.41	66	(6)	23	0.0%	181%	-46%	20%	75%

219	CANNABIS GROWTH OPRTUNITY	CWWBF	1.21	19	(24)	16	0.1%	65%	-100%	60%	73%
220	QUINSAM CAPITAL CORP	QCAAF	0.12	14	(25)	118	0.0%	383%	-8%	2%	-32%
221	CAPTOR CAP CORP	CPTRF	0.76	29	(31)	39	0.0%	242%	-97%	29%	-16%
222	MJ HARVEST INC	MJHI	2.40	0				660%	-58%	8%	
223	BOUGAINVILLE VENTURES INC	BOG-CA				59	0.5%				
224	YIELD GROWTH CORP	BOSS-CA									

Technology, Ancillary Products and Services

225	KUSHCO HOLDINGS INC	KSHB	4.31	383	390	89	0.4%	67%	-10%	12%	-20%
226	MEDICINE MAN TECHNOLOGIES IN	MDCL	2.82	99	99	35	0.3%	48%	-62%	57%	124%
227	NAMASTE TECHNOLOGIES INC	NXTTF	0.33	100	74	300	0.2%	812%	-1%	0%	-43%
228	HELIX TCS INC	HLIX	0.90	68	72	76	0.0%	267%	-17%	6%	0%
229	TILT HOLDINGS INC	SVVTF	0.64	59	69	1	19.0%	369%	-18%	5%	1901%
230	CANNABIX TECHNOLOGIES INC	BLOZF	0.62	64	56	104	0.2%	197%	-29%	13%	-39%
231	NEXTECH AR SOLUTIONS CORP	NEXCF	0.55	24	22	43	0.1%	82%	-58%	41%	-23%
232	NUGL INC	NUGL	0.43	20	20	46	0.7%	514%	-40%	7%	-77%
233	CANNVAS MEDTECH INC	CANVF	0.32	12	15	49	0.1%	1%	-54%	98%	15%
234	LEAFBUYER TECHNOLOGIES INC	LBUY	0.16	9	10	55	1.9%	1438%	-7%	0%	-65%
235	LIFT & CO CORP	LFCOF	0.18	7	6	38	0.0%	238%	-10%	4%	
236	GLOBAL CANNABIS APPLICATIONS	FUAPF	0.05	5	5	101	0.0%	468%	-16%	3%	-28%
237	YPB GROUP LTD	YPB-ASX	0.00	5	5	917	0.6%	585%	-15%	2%	-57%
238	ADVANTIS CORP	ADVT	0.00	4	4	978	0.1%	1522%	-97%	6%	-86%
239	GLOBAL HEALTH CLINICS LTD	LRSNF	0.03	1	1	49	0.0%	3100%	-91%	3%	-67%
240	BRAINGRID CORP.	BGRD-CA	0.03	2	(0)	1	0.0%	-8%	-14%	247%	
241	CB2 INSIGHTS INC	CBII-CA				78	0.2%				

Testing

242	PSYCHEMEDICS CORP	PMD	7.40	41	37	6	0.7%	196%	3%		-53%
243	EVIO INC	EVIO	0.73	15	20	20	0.4%	49%	-71%		108%
244	FLUROTECH	FLURF	0.27	12	8	43	0.0%	82%	-96%		2620%

US - Cultivation, Processing (and Dispensing) - MSO & SSO

Important Disclosures

Analyst Certification

I, Peter Wright, certify that the views expressed in the research report accurately reflect my personal views about the subject securities or issues. I also do not receive direct or indirect compensation based on my recommendations or views.

This report has been issued by Intro-Blue, LLC, in consideration of a fee payable. Fees are paid upfront in cash without recourse. Intro-Blue, LLC may seek additional fees for the assistance with investor targeting, access, and further investor preparation services, but does not get remunerated for any investment banking services. We never take payment in stock, options, or warrants for any of our services.

Accuracy of content: All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report and have not sought for this information to be independently verified. Opinions contained in this report represent those of the Intro-Blue analyst at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations.

Exclusion of Liability: To the fullest extent allowed by law, Intro-Blue, LLC shall not be liable for any direct, indirect or consequential losses, loss of profits, damages, costs or expenses incurred or suffered by you arising out or in connection with the access to, use of or reliance on any information contained in this note.

No personalized advice: The information that we provide should not be construed in any manner whatsoever as personalized advice. Also, the information provided by us should not be construed by any subscriber or prospective subscriber as Intro-Blue's solicitation to effect, or attempt to effect, any transaction in a security. The securities described in the report may not be eligible for sale in all jurisdictions or to certain categories of investors.

Investment in securities mentioned: Intro-Blue has a restrictive policy relating to personal dealing and conflicts of interest. Intro-Blue, LLC does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees, and contractors of Intro-Blue may have a position in any or related securities mentioned in this report, subject to Intro-Blue's policies on personal dealing and conflicts of interest.

Copyright: Copyright 2019 Intro-Blue, LLC (Intro-Blue).

Intro-Blue is not registered as an investment adviser with the Securities and Exchange Commission. Intro-Blue relies upon the "publishers' exclusion" from the definition of investment adviser under Section 202(a) (11) of the Investment Advisers Act of 1940 and corresponding state securities laws. This report is a bona fide publication of general and regular circulation offering impersonal investment-related advice, not tailored to a specific investment portfolio or the needs of current and/or prospective subscribers. As such, Intro-Blue does not offer or provide personal advice and the research provided is for informational purposes only. No mention of a particular security in this report constitutes a recommendation to buy, sell, or hold that or any security, or that any particular security, portfolio of securities, transaction, or investment strategy is suitable for any specific person.