

TOP 6 CANNABIS PREDICTIONS OF 2022

2021 has been a breakout year for the legal cannabis market in the United States. BDSA expects the U.S. legal cannabis market to reach a whopping ~\$25B by the end of 2021, representing a ~40% increase over 2020. But it won't stop there, next year BDSA expects the U.S. legal cannabis market to reach nearly \$30B, continuing to be the driving force behind legal cannabis sales worldwide over the next five years.

The U.S. growth is being driven by key factors across states and stages of legalization:

- MATURE cannabis states such as California, Oregon, and Colorado continue to see massive growth.
- NEW legal cannabis states such as Illinois, Massachusetts, Michigan and new medical markets are developing at an ever-increasing rate.
- EMERGING legal cannabis states, like New York, that recently legalized are expected to yield huge contributions to BDSA's forecasted market growth out to 2026.

What's in store for 2022?



1 Classification (Indica, Sativa, Hybrid) Will Fade Away as a Designation of the Consumer Experience — Cannabinoid Content and Terpene Driven Benefits are the Way of the Future

Since the early era of medical cannabis, cannabis products, especially flower, have been marketed by strain names, or indica/sativa/hybrid labels. While this dynamic of strain and indica/sativa characteristic labeling remains popular, these labels fall short of giving consumers an accurate description of the effects of cannabis products.

Going forward, we expect minor cannabinoids, cannabinoid ratios, terpene profiles, and beyond to replace strain and indica/sativa labeling. A host of new products have already begun to see success in mature markets. For example, in the edible category with the rise of CBN-infused products targeted as sleep aids, CBD products targeted towards consumers seeking anxiety relief and relaxation, and other less common cannabinoids such as CBG and THCV working their way into the product mix. In BDSA's Retail Sales Tracking in California, **the top 20 gummy edible products in Q3 2021 featured 10 products touting the benefits of CBD and other lesser-known cannabinoids (also known as minor cannabinoids), a significant rise since Q3 2019**, when only four products of the top 20 minor cannabinoids.

Unlike the indica-sativa-hybrid classification, which was straightforward enough to gain relative uniformity among brands and manufacturers early-on, what has yet to be determined with functional benefit descriptions is what and how do we reach a new “standard.” The indica-sativa-hybrid classification and strain names have been

useful in giving consumers a general idea of product effects but are less useful than terpene profiles at giving a consistent description of the experience a product offers. Right now, education and knowledge around terpenes are still in their infancy for the masses. BDSA is tracking only ~15% of cannabis consumers preferring inhalables claiming that terpene profiles drive their purchasing. HOWEVER, BDSA is placing bets on terpenes becoming part of the vocabulary for cannabis consumers of all stages of experience in 2022.

2 Brand Recognition will Grow (AND Dare We Say Brand Loyalty Will Emerge?)

Consumers still do not name “reputation of a brand” as a top-10 influencer of their purchasing decision however **BDSA's Consumer Insights tracks ~20% of cannabis consumers saying brand reputation influences their product choice**. Branding is still primarily a communication tool to link to a good product experience. Consumers are more likely to choose a product that is FAMILIAR—a brand they have used before (~25%) or one that has been recommended by a friend or family member (~20%). As brands continue to drive consistent, expected experiences and cross borders, greater recognition and loyalty will emerge.

3 More Blatant Quality Cues Will Drive Greater Pricing Differentiation

As the biggest brands continue to expand their product lines, price differentiation driven by product features, benefits, technology/innovation, and quality will

emerge in a bigger way.

In California, for example, Live Resin is broadly accepted as having a higher quality than other vape cartridge-extraction methods. As such, BDSA is tracking Live Resin carts to represent over a third of total vape sales in the state (up from ~10% in 2019). AND these products ALSO make up over three-quarters of the top priced items in the category.

Further, consumers of edibles are willing to pay a premium for unique additional ingredients in gummies. **Gummies that also contain CBD are, on average, priced ~20% higher and their sales have increased ~40% between the second quarters of 2020 and 2021.** Taking that further, the addition of CBN and CBG enables pricing up to 20-25% higher in the CA market.

4 The Race for Global Cannabis Dominance is Well on Its Way – BUT Traditional CPG Will Not Lead the Way

With more countries across the globe re-evaluating their stance on cannabinoid-based products each year and many now supporting burgeoning medicinal marketplaces (Europe, South America, and Africa), the rise of the global cannabis brand is here. For example, Canadian-LP Tilray says it offers branded medical cannabis in 20 different countries around the world. And over the course of this year, we've seen competition for access to these emerging markets heat up with Curaleaf moving into Germany, Aurora acquiring a large equity stake in Netherlands-based Growery B.V., and Canopy Growth Corporation now holding distribution and production licenses in a dozen countries. But it is not just Canadian

LPs looking outward, we've also seen US-based brands moving up north via partnerships and licensing agreements with Canadian LPs. For example, **Wana, the leading Colorado-based gummy manufacturer under the Canopy Growth house of brands entered Canada via Indiva, and quickly took over as the #1 gummy brand in Canada.**

Many (including BDSA) predicted more mainstream CPG food and beverage companies would have already moved into the global cannabis marketplace, but we are still tracking a “wait and see” approach by many of them. Obviously, exceptions exist such as: Constellation Brands and Canopy Growth Corporation (with stake in Acreage and Wana), Altria and Cronos Group (with stake in PharmaCann), British American Tobacco and Organigram, Molson Coors and HEXO with Truss, Boston Beer partnering to release cannabis beverages in Canada, and beyond. Pharmaceutical giant Pfizer also recently made news with a \$6.7 billion acquisition of Arena Pharmaceuticals, a biotech company that has made significant investments into developing cannabinoid-type treatments.

We largely anticipate mainstream CPG manufacturers and retailers to remain on the sidelines until the U.S. has implemented federal legalization or de-scheduling that would ensure their “core” businesses are protected and key barriers like restricted access to banking, lack of interstate commerce, and unfavorable tax provisions like 280E lifted. And though there's plenty of rationale in their decision, the quagmire most will face in the future, should they want to enter the space, is whether to build from the ground up or buy an existing player – both of which are becoming increasingly more expensive as the leading cannabis brands continue an exhaustive path of M&A, growing ever bigger and garnering higher valuations.

5 The FDA will Continue to Limit the Potential of the Mainstream CBD Market (Indefinitely?)

After the Farm Bill opened the floodgates for commercial hemp production, many (including BDSA) assumed a relatively quick FDA ruling that would allow edible products containing hemp-derived CBD. As the months turned to years, non-edible CBD products, especially pet products, have done well—but edible products have remained off the table for major brands and mainstream retailers.

As legal cannabis continues to spread, the general market appeal of other “light” cannabinoid products will wane. CBD topicals, pet products, and similar may continue to move through general retail, but the FDA’s lack of action will keep the legal cannabis channel (i.e., dispensaries) the sole platform for CBD-infused edible products—and it will always hold distinction as the source of products that provide an entourage effect.

BDSA’s current CBD market forecast (inclusive of both hemp and marijuana derived CBD) assumed grocery, drug, and other mainstream retail channels would see an influx of hemp-CBD-bearing edible products in 2022, taking general retail share of an anticipated ~\$10B CBD market to ~70% (versus ~20% dispensary and ~10% pharmaceutical). **Without an FDA ruling, e-commerce is likely the only traditional retail channel to see much CBD sales growth in 2022.**

Likewise, the spread of legal cannabis and further regulations will serve to dint the current strong appeal of quasi-legal cannabis products such as Delta-8, which already face existential regulatory/judicial challenges.

6 Vape Will Continue to Survive (and Thrive) Despite More Reputational Hits

After experiencing major disruptions being the subject of the first public health crisis in the cannabis industry, vape has solidified its place as a top cannabis product category. As concern grew over the E-cigarette and Vaping Associated Lung Injury crisis in the summer of 2019, monthly vape dollar sales across BDSA-tracked markets dropped over 10% between August 2019 and November 2019, signaling trouble for this fast-growing segment of the industry. However, BDSA-tracked legal cannabis vape sales rebounded after this low point in November 2019 as news spread that EVALI was linked to Vitamin E acetate additives in illicit vapes.

While vape sales slowed slightly during the early months of the pandemic, the category is once again seeing strong performance, making up ~25% of dollar sales across BDSA-tracked markets (AZ, CA, CO, FL, IL, MA, MD, MI, MO, NV, PA) in Q3 2021. BDSA is finding that consumers claim that ease of use (~55%), portability/convenience (~40%) and discretion (~30%) are their top reason for choosing vapes, product benefits that few other inhalable product categories provide. While some concerns about the health risks of vaping linger, as evidenced by an October 2021 study suggesting that cannabis vapes may carry the risk of heavy metal exposure, **BDSA expects the vape technologies will adapt further to mitigate health risks and that vape products will continue to hold a 20+% share of sales in legal cannabis markets.**

