



DATA. DEEPER.

THE MOST COMPREHENSIVE
UNDERSTANDING OF CANNABIS MARKETS

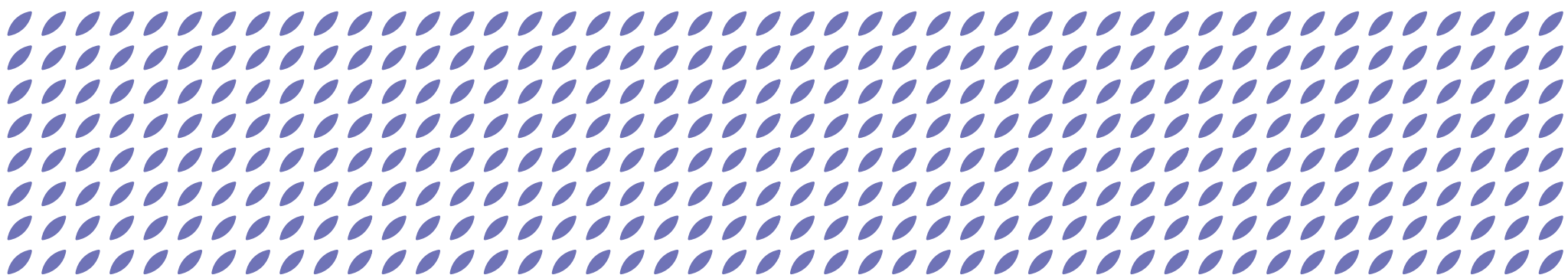
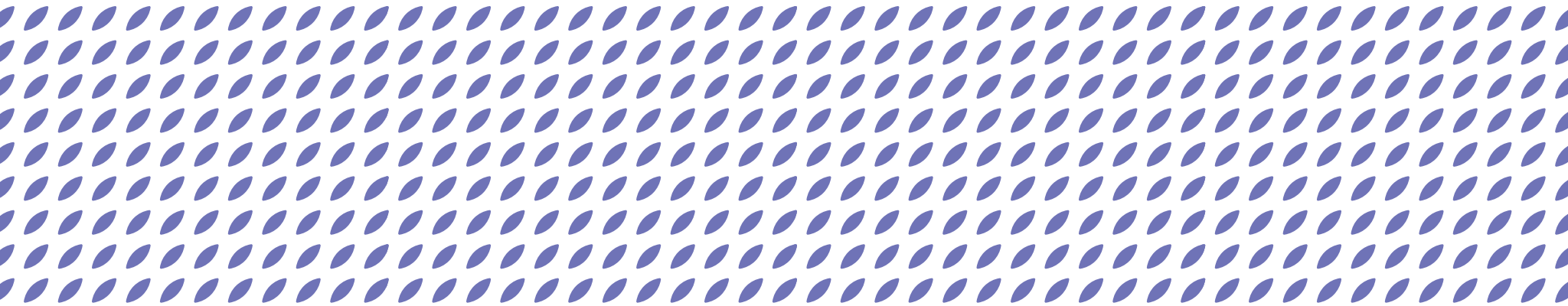




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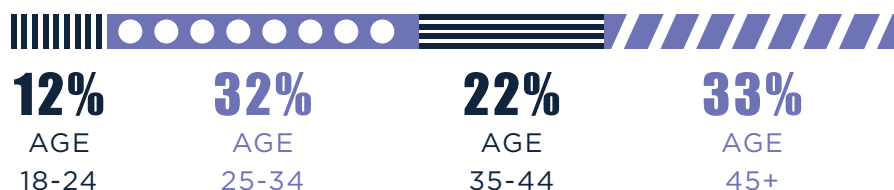
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CALIFORNIA MARKET SNAPSHOT

At BDSA, we don't just stop at data. Our industry-leading experts have the experience and perseverance to keep digging, analyzing, and translating to give you not just the what of the cannabis industry, but also the who, when, why and how.

CONSUMER DEMOGRAPHICS



AVERAGE MONTHLY SPEND:

\$100

AVERAGE SPEND PER TRIP:

\$80

*

REASONS FOR CONSUMPTION

RELIEVE PAIN



RELAX / BE MELLOW



SLEEP BETTER



*

PURCHASES INFLUENCED BY

TASTE / FLAVOR

31%

HIGH THC CONTENT

24%

BRAND FAMILIARITY

22%

TOP CATEGORY SALES



**

CATEGORY STATS

66%
OF SUBLINGUAL PRODUCTS
SOLD CONTAIN CBD

51%
OF ALL VAPE SALES ARE
DISTILLATE CARTRIDGES

**

EDIBLE STATS



**

BDSA'S CALIFORNIA MARKET FORECAST



* Source: Consumer Insights data, Spring 2021 California

** Source: BDSA Retail Sales Tracking Data, California, 1H 2021

CALIFORNIA MARKET DEEP DIVE

FLOWER

VAPE

EDIBLES

TOP FLOWER BRANDS

- #1 CANNABIOTIX
- #2 PACIFIC STONE
- #3 GLASS HOUSE FARMS

TOP VAPE BRANDS

- #1 STIIIZY
- #2 RAW GARDEN
- #3 SELECT OIL

TOP EDIBLES BRANDS

- #1 KIVA CONFECTIONS
- #2 WYLD
- #3 SUNDERSTORM

TOP FLOWER SKUS

- #1 PACIFIC STONE - WEDDING CAKE
- #2 PACIFIC STONE - 805 GLUE
- #3 CANNABIOTIC - CEREAL MILK

TOP VAPE SKUS

- #1 STIIIZY - BLUE DREAM
- #2 STIIIZY - SKYWALKER OG
- #3 STIIIZY - PINEAPPLE OG

TOP EDIBLES SKUS

- #1 WYLD - GUMMIES - MARIONBERRY - 100 MG THC
- #2 KIVA CONFECTIONS - CAMINO GUMMY - MIDNIGHT BLUEBERRY - 100 MG THC
- #3 WYLD - GUMMIES - SATIVA - RASPBERRY - 100 MG THC

MOST AVAILABLE FLOWER

- #1 STIIIZY
- #2 WONDERBRETT
- #3 LOWELL HERB COMPANY

MOST AVAILABLE VAPE

- #1 STIIIZY
- #2 RAW GARDEN
- #3 SUBLIME CANNA

MOST AVAILABLE EDIBLES

- #1 WYLD
- #2 PAPA & BARKLEY
- #3 KIVA CONFECTIONS

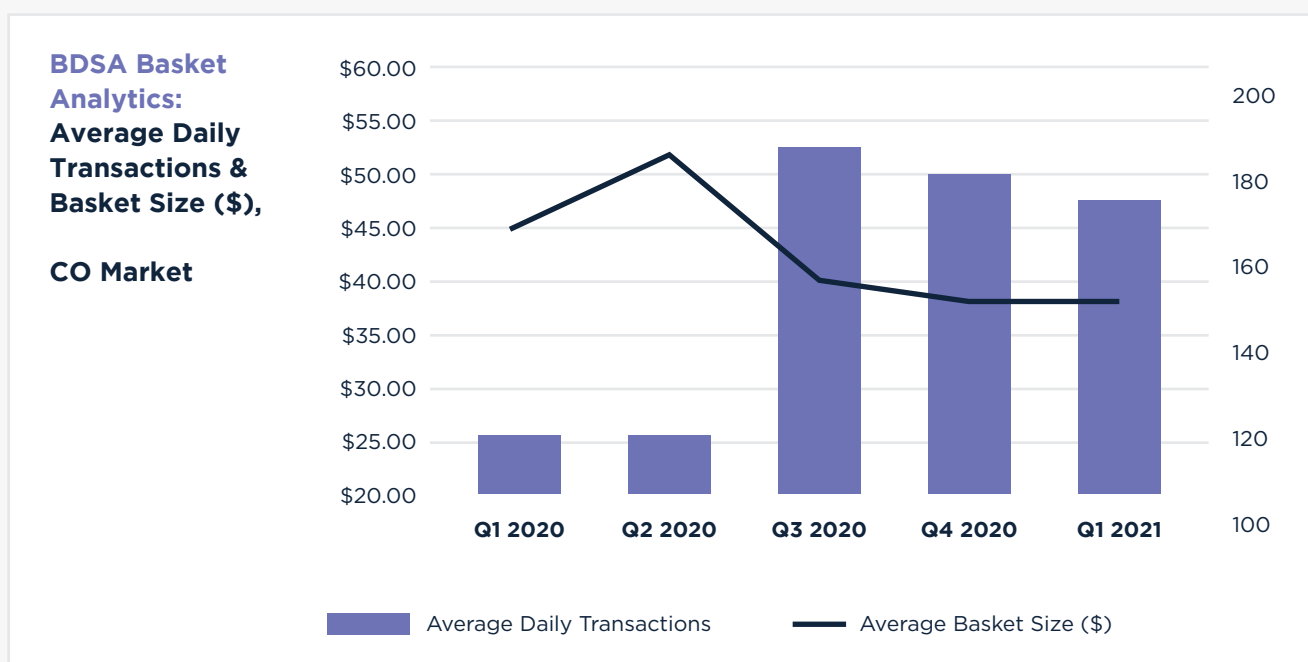
* Source: BDSA Retail Sales Tracking Data, California, 1H. 2021

INSIGHTS EXAMPLE: WINNING IN-STORE

WITH BDSA'S BASKET ANALYTICS

A key part of maximizing store and brand sales is evaluating drivers of change, and responding with strategies that are tailored to customer behavior. This is particularly relevant now, as we begin to emerge from a year of immense change.

For example, CO basket data shows fewer daily transactions, but larger baskets of customers stocked up during the onset of the pandemic in Q1/Q2 2020; loosening restrictions in Q3 and beyond resulted in a shift - smaller baskets, but more transactions per day:



In CO during Q4 2020, the average number of daily transactions increased vs. Q4 2019, as well as the average price per item; conversely, the average basket size (\$) and average number of items per basket decreased...

So what does all this mean?

+48%

Increase in Avg. Daily Transactions



Retailers: Bring shoppers to your store; be prepared for traffic

Manufacturers: Be where your shoppers are; drive awareness and brand recognition

-15%

Decrease in Avg. Number of Items per Basket



Retailers: Use promotional tactics to drive basket size and quantity

Manufacturers: Drive bundles; consider cross-category and pricing promotions

+8%

Avg. Price per Item



Retailers: Don't leave money on the table; optimize pricing across assortment

Manufacturers: Optimize pricing and understand willingness to pay

INSIGHTS EXAMPLE: CANNABIS BEVERAGES

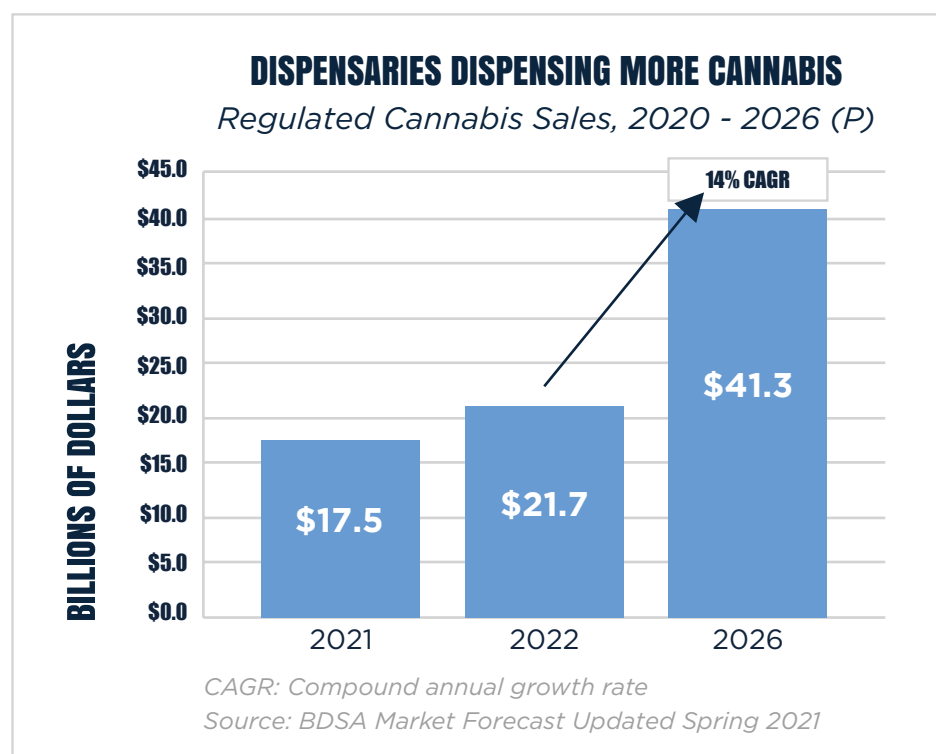
WHAT IS THE LONG-TERM POTENTIAL FOR CANNABIS BEVERAGES, IN BOTH DISPENSARIES AND GENERAL RETAIL?

First, it is important to understand the foundation of the cannabis industry. Through dispensaries alone, cannabis sales in the United States passed \$17.5 billion in 2020 and are expected to top \$21.7 billion this year, according to BDSA's forecasts of legal cannabis sales. BDSA forecasts sales to reach \$41.3 billion in 2026, the result of a compound annual growth rate of 14%. Growth will come from both the opening of new markets and the expansion of existing markets.

That is all before layering in hemp-derived CBD products sold through other general retail such as e-commerce, grocery stores, drug stores and other mainstream channels. BDSA expects an additional \$4 billion in CBD sales through general retail outlets in 2021, and that figure could grow to nearly \$17 billion by 2026. While the size of the CBD market, particularly for ingestible products, has been limited by federal regulation to date, BDSA expects CBD to be allowed as a food additive in 2022.

Several markets became newly legal in 2021, with Arizona starting adult-use sales in January and approval for adult-use passing in New York, New Jersey, New Mexico, Connecticut and Virginia. Meanwhile, usage in the most mature markets is on the rise – nearly half of the adult population claims to use cannabis in states such as Colorado, Washington and Nevada.

Regulated cannabis beverages (i.e., those sold through dispensaries) have seen tremendous growth so far in 2021, with dollar sales nearly 60% higher in Q1 2021 versus Q1 2020. BDSA tracks 10% more beverage SKUs in market today than one year ago, and brands are partnering to take their beverages to new states. This is likely a contributing factor to the increase in consumers trying beverage cannabis products, up to 25% in spring 2021 versus 19% in fall 2020. BDSA expects U.S. sales of regulated cannabis beverages (CBD and THC) to top \$200 million in 2021. California and Colorado are leading the charge with greatest contribution to volume relative to their size, with beverages making up about 7% of sales of total edibles in each state.

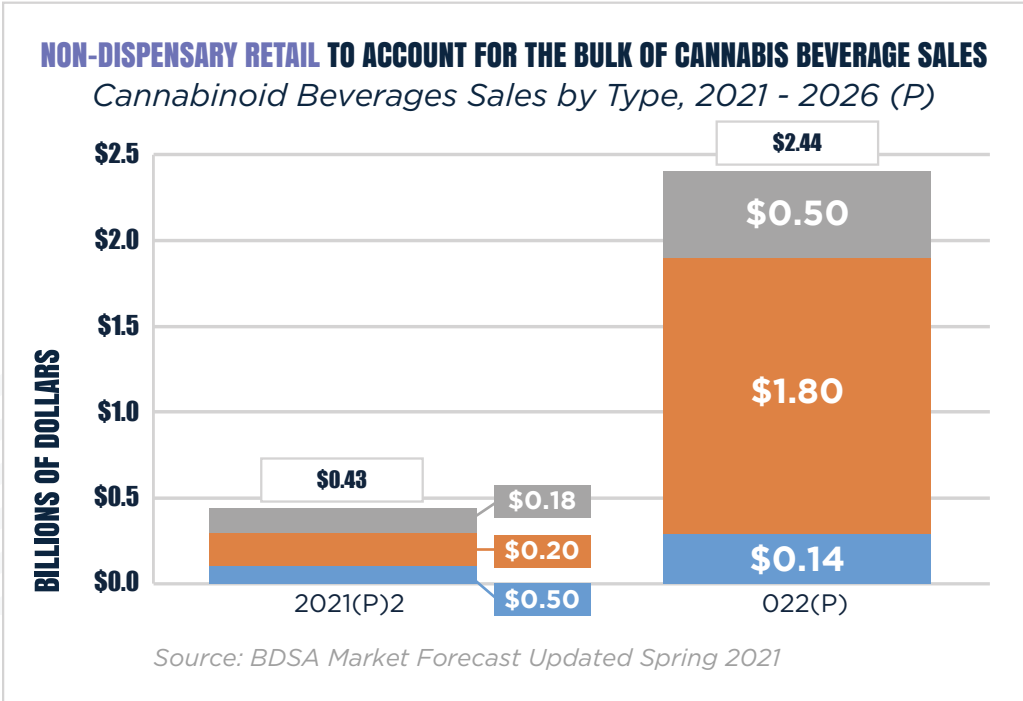
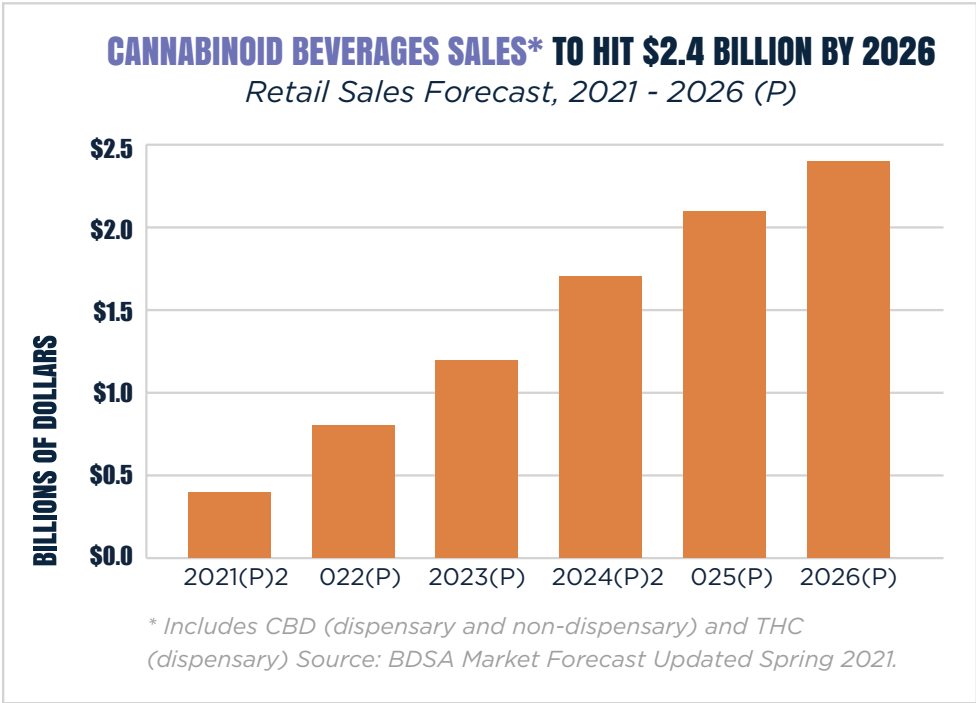


Formats matter, and beverages have distinct advantages. In general, edibles offer the benefit of allowing consumers to control their dosage better than other cannabis formats – consumers who prefer edibles are 25% more likely than other cannabis consumers to prefer a dosage of less than 10 milligrams of THC. Beverages are able to capitalize on this overall benefit of edibles, with the added bonus that they offer an option to consume cannabis in a familiar, easily accessible format. They also have potential to tap into more social occasions or more traditional drinking occasions.

According to BDSA consumer survey data, roughly half of beverage alcohol consumers in states where cannabis is legal are also cannabis consumers (but an additional 30% are open to trying cannabis in the future). However, consumers are likely making more occasion-based decisions for cannabis and alcohol. Only about 15% of consumers think that alcohol and

cannabis are good for the same times of day and days of the week, while about half think cannabis and alcohol are good for different times of day and days of the week. There are some similarities but they are not entirely substitutable. However, when consumers pair alcohol and cannabis, half of consumers say they are likely to consume less alcohol.

Despite significant recent growth, the cannabis beverage industry remains small compared to the broader regulated cannabis market. Beverages make up roughly 5% of the U.S. edibles market, or about 1% of total cannabis sales. Beverages also encounter challenges other products do not – being more expensive to produce and harder to transport. Even so, BDSA expects sales of regulated cannabis beverage (both THC and CBD in dispensaries) to exceed \$600 million and sales of CBD beverages through general retail to reach \$1.8 billion by 2026.



BDSA PROVIDES THE MOST COMPREHENSIVE UNDERSTANDING OF THE GLOBAL CANNABINOID MARKET



RETAIL SALES TRACKING

THOSE IN THE KNOW,
KNOW BECAUSE OF US.

BDSA's Retail Sales Tracking makes it easy to make data-backed decisions, because you will know exactly what is selling where, when, and at what price point (from total state to channel to category to brand to product and to product attributes). This BDSA product provides dynamic dashboards covering key market dynamics and addressing specific business needs related to: assortment, pricing, availability, and innovation.

BDSA's Retail Sales Tracking Dashboards:

Assortment

Gain a detailed understanding of category, brand, product, and product attribute performance and trends to...

- Optimize assortment / product portfolio
- Identify whitespace opportunities
- Track and benchmark performance
- Target "Winning" M&A or investment opportunities

Pricing

Dive deep into pricing analytics and drivers by category, brand, product, and product attributes to...

- Price products to optimize sales
- Set assortment to appeal to different price tiers
- Shelf the right products at the right price
- Identify drivers of pricing and performance

Availability

Understand how available a product is in a market to unpack sales vs. availability metrics to...

- Build stronger retail sales stories Identify brands that fall "under the radar"
- Assess performance versus competition
- Identify areas for improvement in distribution planning

Innovation

Take an in-depth tour of newly launched brands, products, and trending product attributes to...

- Keep on pulse with market trends
- Assess competitive response
- Identify assortment / product portfolio opportunities
- Invest in the right brands in the right markets

As of September 2021, BDSA provides granular retail sales tracking in 11 US states: AZ, CA, CO, FL, IL, MA, MD, MI, NV, OR, PA.



BASKET ANALYTICS

THE DIFFERENCE BETWEEN
GETTING BY AND GETTING AHEAD.

BDSA's Basket Analytics provides deeper data on basket value and basket composition across the whole store and within a brand or category. Retailers and manufacturers will develop winning cross-selling and up-selling strategies to maximize overall store and brand sales.

Maximize store and brand sales through deeper basket diagnostics.

- Drillable by channel, by category, AND by brand

Brands will:

- Identify an action on basket affinities to drive innovation and product portfolio management
- Develop strong retailer sales stories to gain optimal shelf-space
- Optimize marketing mix and promotional planning

Retailers will:

- Develop category and brand cross-selling strategies
- Optimize assortment and maximize shelf space
- Grow the overall basket size through better basket understanding, identifying upsell opportunities, and budtender training

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CONSUMER INSIGHTS

KNOW WHERE TO GROW.

BDSA's Trended Consumer Insights

BDSA's Consumer and Shopper Insights provides comprehensive information on cannabis consumers (and non-consumers) by state and by province—demographics, psychographics, behaviors, consumption dynamics, form factor preferences, form factor use cases, need states, ailments, spending, product/brand purchase influencers, and beyond.

BDSA's Consumer Segmentation

BDSA also has a full Consumer Segmentation (six mutually exclusive Consumer Segments, four mutually exclusive Non-Consumer Segments), proving to be a powerful tool for product portfolio management, store segmentation, innovation, consumer targeting, messaging, and beyond.

With BDSA's Consumer and Shopper Insights you will launch, expand, promote, innovate, and price with purpose.

- Track evolution of the Consumer Market
- Launch, expand, promote, innovate, and price with purpose
- Identify and Action of the most valuable Consumer Targets or Segments
- Know the why and the how of behavior to optimize product portfolio, assortment, planning, innovation, and in-store experience



GLOBAL MARKET FORECASTS

NOT JUST INFORMATIVE. PREDICTIVE.

BDSA's global cannabinoid 5-year Market Forecasts cover 40+ countries, US and CAN by state, by province, and by category, broken down by channel (medical, adult-use, and illicit). Market Forecasts supports gaining confidence in short-term and long-term investment and entry and expansion strategy by knowing the total addressable market for cannabis at a country, state, channel, and/or category level.

- Understand where local and global markets have been, where they are today, and where they are going
- Assess market dynamics, trends, and expectations of changing regulations
- Invest, launch, expand, and extend at the right place and time for your business



WHOLESALE PRICING ANALYTICS



NOT JUST DATA. ANSWERS.

BDSA's Wholesale Pricing Analytics is a joint BDSA and Apex Trading product that provides a view into pricing dynamics in the wholesale market.

Wholesale Pricing Analytics allows retailers, distributors, brands and growers to assess market price levels for their respective products to maximize their margin. Insights on flower will be available for Colorado initially, with other markets becoming available over the next few months. Historical pricing trends are available as well as a deep dive into pricing by: THC ranges, strain, grow environment, grow medium, and trim method.

Wholesale Pricing Analytics enables brands and retailers to:

- Assess market pricing for products
- Determine the best time to bring products to market
- Identify key pricing and demand trends
- Research product features or "attributes" that matter
- Track features that drive premium pricing



Contact Us