



Price. It's complicated.

How cannabis pricing differs from other consumer goods



Now that we're a few years into the blossoming of cannabis as a viable product industry in North America, it's a good time to look under the leaf at how pricing in the market is working. Does it behave like a typical consumer packaged goods (CPG) market? Or are there other dynamics at play? And what actions can companies take to stay competitive?

To find out, cannabis market analytics firm BDSA, sales data analysis platform Hifyre, and Deloitte Canada worked to better understand pricing dynamics in the legal cannabis market in both Canada and the United States. We examined retail sales data from the first half of 2021 for insights and studied Deloitte's and BDSA's 2021 consumer insights surveys to inform our opinion. We discovered there are fundamental similarities between cannabis and CPG markets. For example, consumers are willing to pay a premium price for quality, and the laws of economics do apply to cannabis. But in other instances, price-related factors suggest there are several key differences. The price/quality relationship—in other words, the value—can be confusing. There is no national pricing. And branding does not (yet) play a big role.

Price. It's complicated. dips into data findings and explores in more depth what's the same and what's different in relation to other consumer products markets. Perhaps most importantly, it also suggests what steps cannabis brands can take to maximize their business results in the challenging environment of this young industry.

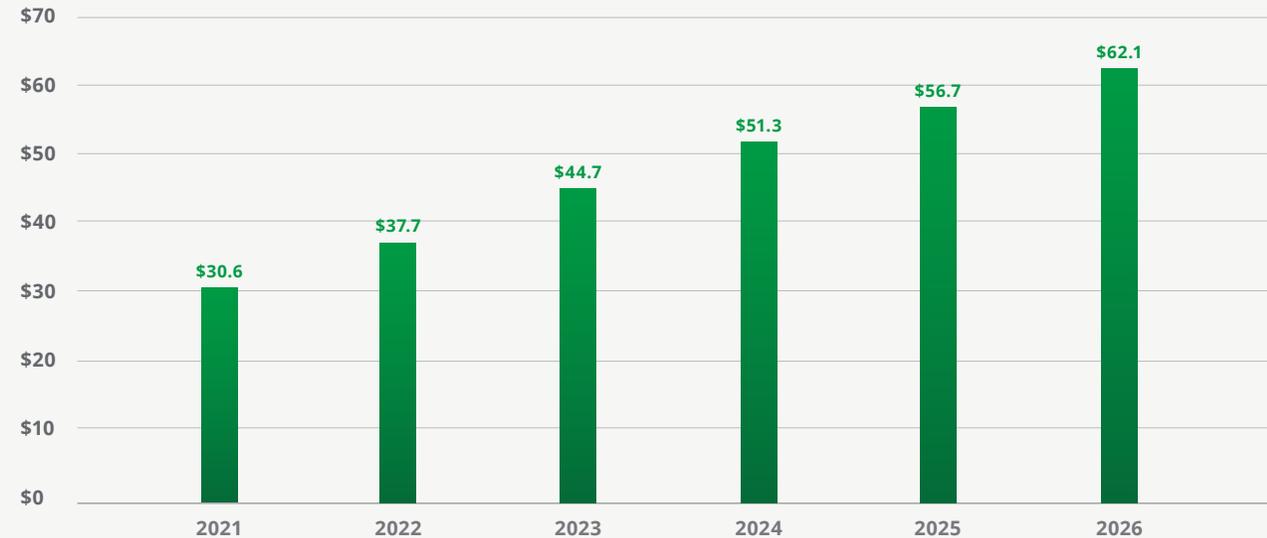
Cannabis markets keep growing up

Global legal cannabis sales reached nearly US\$21.6 billion in 2020, an increase of 50% over 2019 sales of US\$14.4 billion, due largely to legalization. BDSA forecasts global cannabis sales will continue to grow quickly, to US\$62.1 billion in 2026, more than double the 2021 estimated global sales of US\$30.6 billion with a compound annual growth rate (CAGR) of more than 15%.

Through dispensaries alone, cannabis sales in the United States reached US\$18.0 billion in 2020, and are forecast to top US\$24.9 billion in 2021. BDSA expects US sales to reach US\$47.6 billion in 2026, the result of a CAGR of 13.8%, with growth coming from both the opening of new markets and the expansion of existing ones.

Legal cannabis sales in Canada totalled an estimated US\$2.6 billion in 2020 and are forecast to grow to nearly US\$6.7 billion in 2026, a CAGR of 10.9%. Canada began legal adult-use sales in late 2018 and allowed dramatically expanded product offerings including vapes, edibles and topicals in both the medical and adult-use markets in late 2019. These new product categories, in combination with increased access to adult-use cannabis—the result of the opening of 828 new cannabis stores for a total of 1,868 retail locations in 2020—further accelerated growth.

Figure 1 BDSA global legal cannabis forecast (Worldwide September 2021, USD billions)



\$21.6 billion

Global legal sales in 2020
+50% from 2019

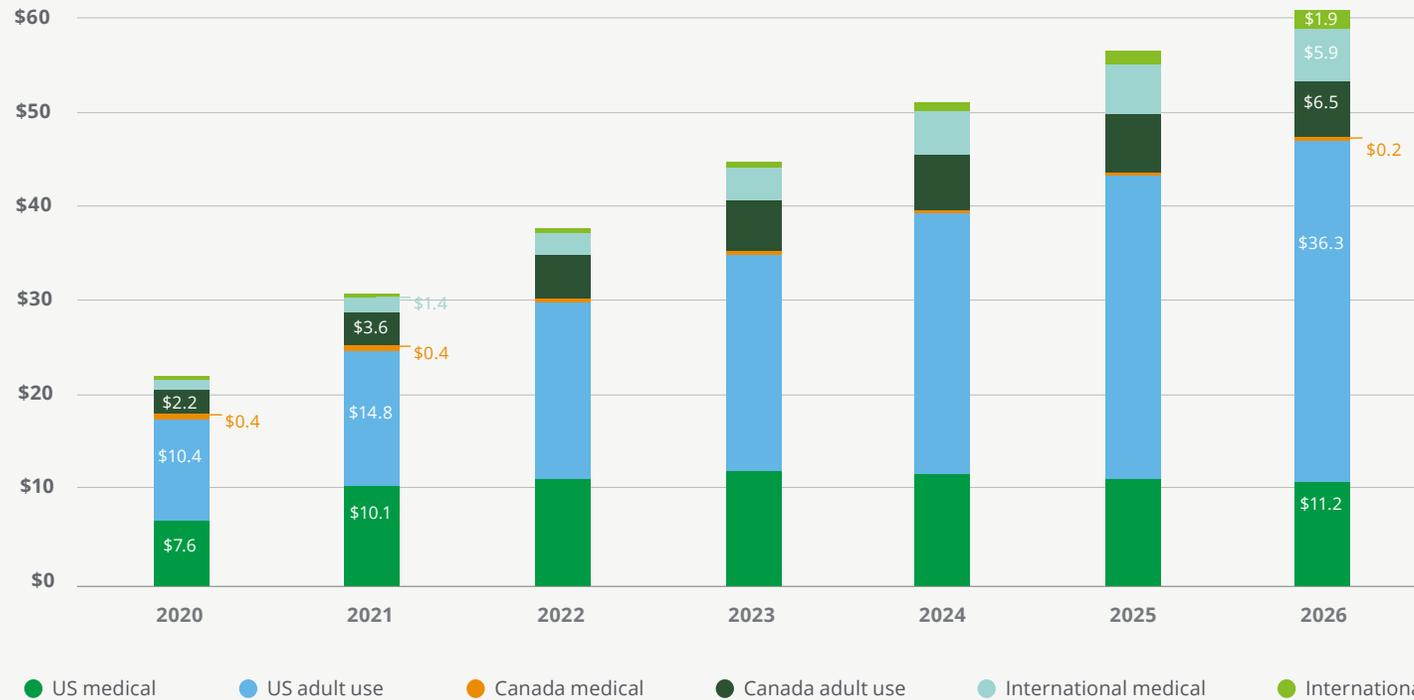


\$62.1 billion

Global legal sales by 2026
+103% from 2021



Figure 2 BDSA global legal cannabis forecast (Worldwide September 2021, USD billions)



14%

Total US CAGR



11%

Total Canadian CAGR



15%

Total international CAGR

The adult-use markets in both Canada and the United States represent the greatest opportunity for volume for North American cannabis companies as they are forecast to represent 76% of sales in the United States and 97% of sales in Canada by 2026.

Price matters

What's the same as other CPG markets? Price is important.

In both the United States and Canada, consumers consistently indicate price is a key factor in decisions about what cannabis product to buy. The most recent BDSA Consumer Insights survey, which polls thousands of consumers every six months, found the following (see also figure 3):

- In states where cannabis is legal for adult and medical use, low price was consistently identified in the top three drivers of product choice. More than a quarter (27%) of respondents said price influences their purchase decision, just behind taste/flavour and high THC content.
- In Canada, low price was the leading influencer of product choice, with 34% of consumers stating it matters the most.

Furthermore, in Deloitte's study of Canadian cannabis consumers, 70% of respondents who shop the illicit market stated that better or lower pricing was a key reason they turned to that market.

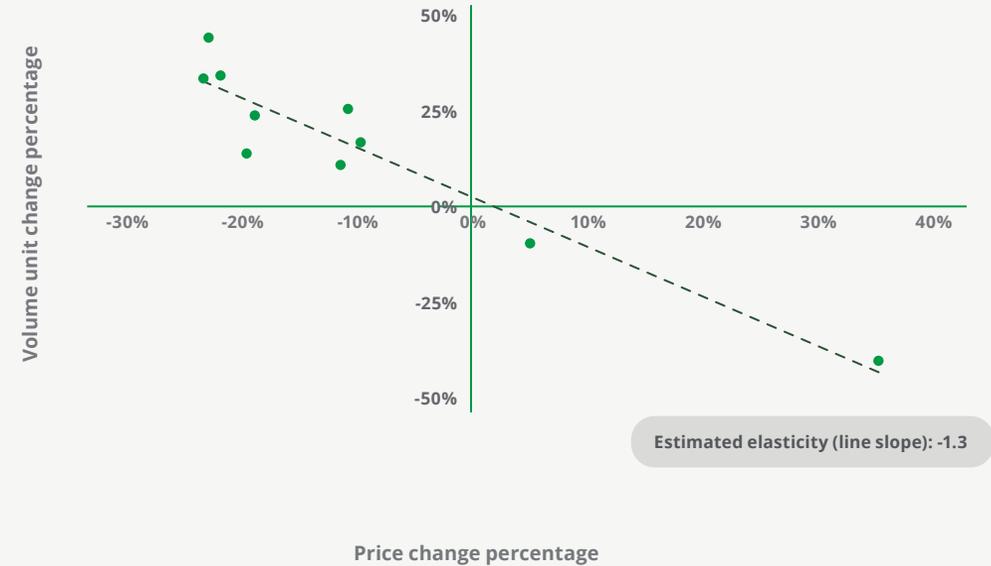
Market data from California indicated a strong relationship between price and unit volume in the edibles category. BDSA analyzed 10 price changes and consistently found that unit volume increased as price decreased (see figure 4).

Figure 3 BDSA consumer insights survey (April 2021)



Low price is a main driver in purchases

Figure 4 Estimated price elasticity: California edibles



Source: BDSA retail sales tracking



In an analysis of 10 price changes, it was consistently found that unit volume increased as price decreased

What's different from other CPGs? Determining fair value is more confusing for consumers, since the typical relationships between price and quality are not consistent.

It's challenging for consumers to assess value because product quality itself is difficult to evaluate. In Deloitte's *2021 cannabis consumer study*, we found that respondents consider many factors in evaluating quality of flower, although THC or CBD content was clearly the most important (see figure 5).



Figure 5 Deloitte 2021 cannabis consumer study: Quality considerations



57%

THC or CBD content



35%

Smell



29%

Flavour



48%

Quality of high



34%

Duration of high



25%

How well it smokes/vapes



36%

Taste



32%

Lack of negative effects



20%

Bud density

To add to the complexity of evaluating multiple quality factors, consumers are faced with huge ranges in prices within their chosen format, with top-priced products sometimes many times more expensive than the lower-priced products in the same category (see figure 6).

Even the price per milligram of THC can vary wildly, as the chart of retail prices per mg THC for cannabis-infused beverages illustrates in figure 7.

* How to stay competitive

- Continuously monitor pricing in legal and illicit markets
- Drive the cost out of operations to enable pricing flexibility while maintaining profitability
- Use data in operations and cultivation to benchmark key performance indicators, measure quality, and standardize growth curves to increase efficiency, consistency, and reduce cost
- Communicate product qualities to validate its price tag

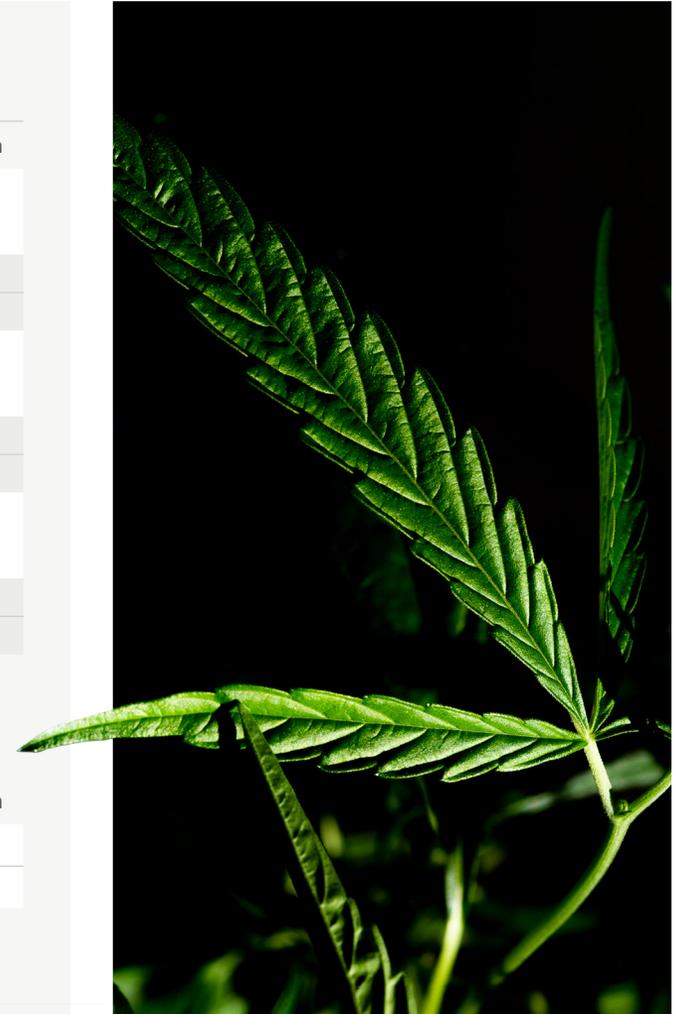
Figure 6 Retail price ranges by market and segment

	Retail price		
	Average	Minimum	Maximum
 Vape cartridges (1000 mg)			
California USD	\$43.68	\$13.47	\$124.56
Canada CAD	\$54.58	\$39.01	\$66.02
 Beverages			
California USD	\$15.34	\$2.25	\$53.11
Canada CAD	\$6.23	\$3.41	\$8.88
 Edibles			
California (100 mg THC) USD	\$16.40	\$3.33	\$50.33
Canada (10 mg THC) CAD	\$6.89	\$4.11	\$16.49

Figure 7 Beverages \$/mg THC

	Minimum	Maximum
 California USD	\$0.03	\$7.64
Canada CAD	\$0.65	\$6.28

Source: BDSA and Hifyre retail sales tracking, January-June 2021



National pricing does *not* exist

What's the same? Very little.

While many brands and stock-keeping units (SKUs) are distributed in numerous regions, brands do not have national pricing.

What's different? Everything.

There are numerous pricing differences among regions within the same country, including different competitors, retailers, regulations, growing conditions, and costs and tax structures. These differences lead to wildly varying pricing across regions for identical SKUs (e.g., same product, same size, same THC content, same strain/flavour), as figure 8 illustrates.

Figure 8 Identical SKU price comparison across regions

		Average retail price			
		Colorado	Illinois	Oregon	
US (USD)	 Wana Sour Gummies Hybrid Mixed Fruit 10x10 mg	\$18.01	\$27.59	\$8.03	
	 STIIIZY Blue Dream distillate cartridge 1000 mg	\$61.43	\$43.81	\$59.25	
		Saskatchewan	Alberta	BC	Ontario
Canada (CAD)	 Pineapple Express Good Supply, 510 cartridge 1.0 ml	\$64.90	\$56.12	\$55.89	\$61.94
	 Lemon Berry Ness, 510 cartridge, 0.5 ml	\$34.36	\$35.29	\$35.45	\$39.19
	 THC milk chocolate Bhang, 4x2.5 mg	\$3.75	\$4.34	\$4.60	\$4.94
	 Blueberry lavender gummies Ace Valley, 2x5 mg	\$7.19	\$7.29	\$7.38	\$8.18

Source: BDSA and Hifyre retail sales tracking, January-June 2021



How to stay competitive

- Understand the impact of regulations, taxation, and retailer margins by region and incorporate it into financial plans
- Analyze competitive pricing by market to set pricing by region

Consumers will pay more for worthy products

What's the same? Discerning consumers will pay a premium for superior products and/or benefits.

In Deloitte's *2021 cannabis consumer study*, we cited a survey conducted by Drop Technologies Inc. among millennial and Generation Z consumers in which 86% of respondents indicated they are likely or very likely to buy premium cannabis offerings if they see sufficient value.

Live resin sales in the 1,000-mg vape category in California demonstrate that consumers will pay for premium products. Live resin is generally perceived as having a higher quality than other vape cartridge-extraction methods, and now represents 33% of total vape sales in the state, up from 8% in 2019 (see figure 9). In the top quintile of price tiers, 75% of the items are live resin cartridges, though they comprise less than 50% of total SKUs. Meanwhile, the top quintile price tier contains only 15% of distillate cartridges (with perceived lower quality), while these make up nearly 40% of the total items in market.

Figure 9 Sales growth of live resin cartridges in California (USD millions)



Source: BDSA retail sales tracking



Millennials and Gen Z are willing to buy premium cannabis

Deloitte 2021 cannabis consumer study



Live resin reigns supreme in premium price tiers

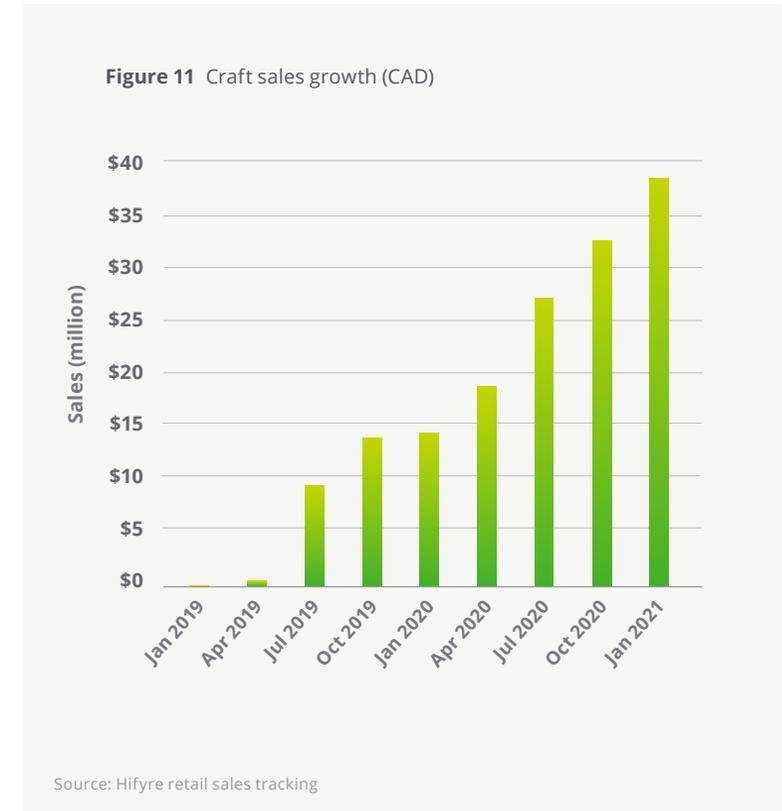
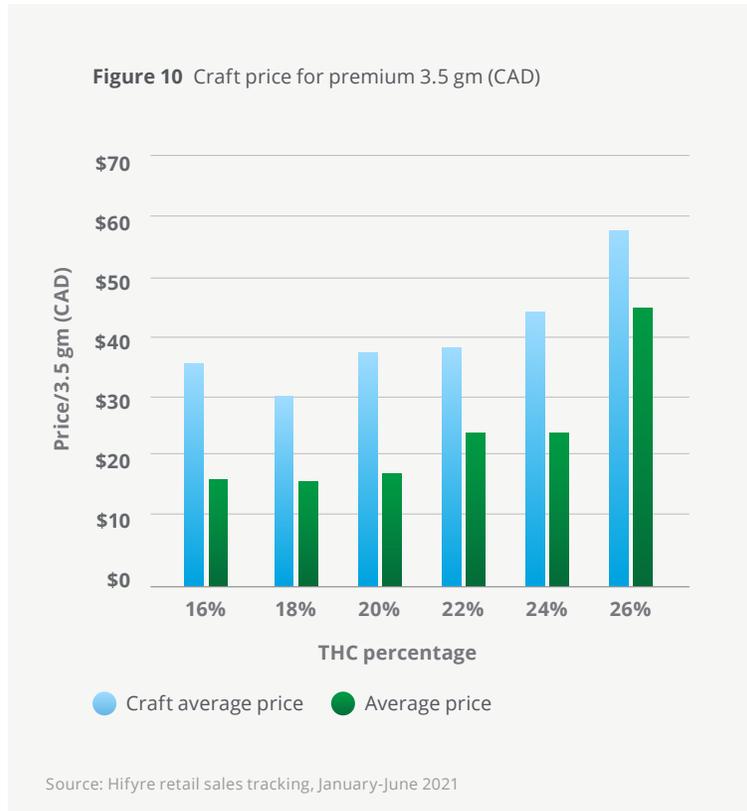
75% of items are live resin cartridges

It appears the discerning consumer has learned over time the benefit and the advantage of a live resin product over distillate. Brands, however, will likely need to educate their consumers to appreciate why the higher price might be worth it. This example is similar to the journey of a consumer in the alcohol market who begins with entry-level blended whiskies and evolves to premium single-malt whiskies.

There's similar evidence that consumers of edibles are willing to pay a premium for unique additional ingredients in gummies. In the California market, for example, gummies that also contain CBD are, on average, priced 18% higher—and their sales have increased by 41% between the second quarters of 2020 and 2021.

In Canada, meanwhile, craft dried flower commands a price premium ranging from 16% to 41%, depending on its THC level (see figure 10).

This premium has not deterred connoisseurs in the least: craft flower has enjoyed significant growth in the past two years, jumping 158% in the past year (see figure 11).



Craft dried flower commands a 16 to 41% price premium, depending on the THC level



Despite a price premium, craft flower has seen a 158% jump in sales this past year

What's different? It can be more difficult to maintain quality standards across geographic boundaries.

In the United States, regulations require cannabis to be grown and processed in the state in which it is sold. Dried-flower quality can and does vary under differing growing conditions, meaning a brand's Bubba Kush grown in California may be very different from its Bubba Kush grown in Oregon. Regulatory requirements also vary, which can lead to product or ingredient differences.



Differing growing conditions can affect dried flower quality



Varying regulatory requirements can lead to product differences



How to stay competitive

- Identify specifically what consumers will be willing to spend more for through market analytics, deep consumer understanding, and market scans (legal, illicit, other markets)
- Foster research and development teams to develop exceptional and/or unique products
- Ensure robust quality-assurance processes to maintain and assure quality
- Set and maintain high-quality standards across all facilities and geographic boundaries
- Understand the regulatory variations and identify ways to drive consistency
- Educate consumers about the benefits of premium products

Brands don't yet command premium pricing

What's the same? Consumers in the United States and Canada seek a good product, driven by flavour and how a product makes them feel.

They are more likely to choose a product that is either a brand they have used before (25%) or one that has been recommended by a friend or family member (20%) or a "budtender" (21%). Not surprisingly for a young industry, consumers are like explorers, trying new brands and new items. We see the premium craft segment exploding in Canada, as noted earlier—will the product experience combined with the brand justify the superior price? Our expectation is that, over time, strong branding will create the differentiator that should command a premium price, as we see in other consumer goods categories.

What's different? Cannabis branding is relatively weak at present and, therefore, less of a differentiator.

In the US market, consumers do not name "reputation of a brand" as a top-10 influencer of their purchasing decision. Only 18% of those surveyed say brand reputation influences their product choice. The upside of weak branding across the cannabis market is that it presents an opportunity to steal top spots in market share. This opportunity is demonstrated by the fact that, in the California edibles market and the Canadian vapes market, there's been a significant shift in market leaders over the past three years. In Canada, the top five vape brands in 2021 were not in the top five two years ago. In California, edible brand leaders have shifted position over time (see figures 12 and 13).



How to stay competitive

- Create unique, relevant, memorable brands
- Understand regulations and opportunities to enhance brands within the regulations
- Use innovation to create distinct, enjoyable product experiences that are associated with the brands

Figure 12 Top 5 vapes: Canada

	2019	2020	2021 (Jan-Jun)
1	San Rafael '71	Good Supply	Good Supply
2	Aurora Drift	Kolab	Back Forty
3	Phyto	Redecan	General Admission
4	Redecan	Foray	Kolab
5	Canaca	Trailblazer	Foray

Source: Hifyre retail sales tracking

Figure 13 Top 5 edibles brands: California market over time

	2018	2019	2020	2021 (Jan-Jun)
1	Kiva Confections →			
2	Plus Products	Plus Products	Wyld	Wyld
3	Big Pete's Treats	Sunderstorm	Sunderstorm	Sunderstorm
4	Sunderstorm	Smokiez	Plus Products	Plus Products
5	Flav	Wyld	Smokiez	Smokiez

Source: BDSA retail sales tracking

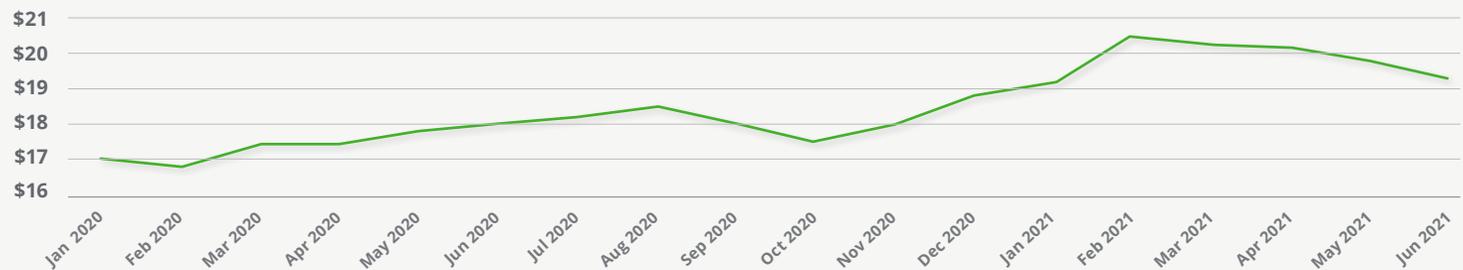
The laws of economics are still the laws of economics

What's the same? Supply and demand and cost of goods play a role in pricing.

The cost of goods is a key driver of wholesale pricing and differs significantly by market. For example, in August 2021, the average price per pound of flower in Oregon was \$1,600/lb but only \$900/lb in Colorado. A range of factors influence the cost of goods, including the grow environment, cultivars, yield, facility scale, grow medium, and trim method.

Supply and demand, as ever, are also fundamentals. In Arizona, where sales for adult-use cannabis began in January 2021 shortly after it was legalized, prices in the long-legal medical cannabis channel increased in response to the increased overall demand (see figure 14).¹

Figure 14 Edibles average retail price in Arizona (USD)

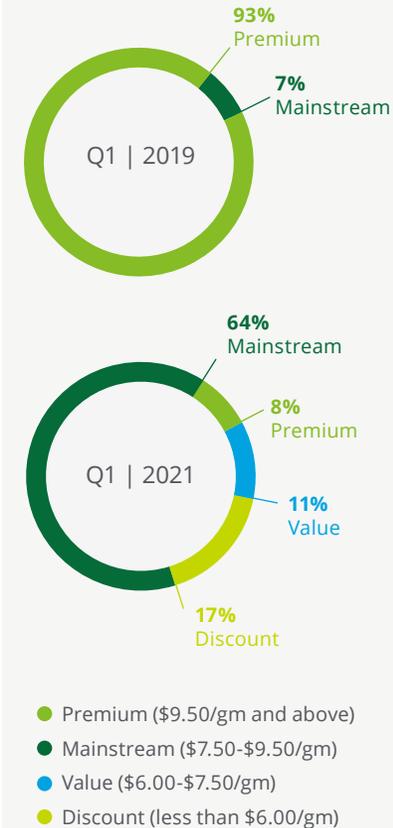


Source: RST sales tracking through April 2021

What's different? Pricing volatility related to supply and demand is significant.

Product supply was low when adult-use cannabis was legally made available in Canada, which resulted in relatively high pricing at the start. As supply increased, the price decreased, with the average price per gram of dried flower falling from \$11.78/gm in the first half of 2019 (shortly after legal sales began) to \$7.50/gm in the same period in 2021. Figure 15 illustrates the dramatic shift from premium-priced flower to the creation of a value, or discount, segment as supply increased. Similarly, the average price per gram equivalent for vape cartridges decreased a whopping 41%—from \$32.02/gm at legalization to \$19.00/gm—just one year later.

Figure 15 Dried flower share by price/gm (units sold)



Above prices in CAD

Source: Hifyre retail sales tracking



How to stay competitive

- Assess and continuously monitor operations against KPIs to minimize cost of goods by increasing efficiencies
- Monitor and assess supply and demand in order to react to fluctuations in a timely manner

¹ Valeriya Safronova, "How Arizona Won the Weed Legalization Race," The New York Times, March 29, 2021

In closing

Pricing in cannabis markets is highly dynamic, sometimes behaving the way we expect in other industries—and sometimes not. Business and brand leaders must analyze data closely to inform their decisions and to avoid making assumptions based on other consumer industries. And, given the volatility of pricing, containing costs will be essential for responding appropriately to market and competitive activity while still achieving profit targets.

Strong business practices will set cannabis companies up for success. The formula is as clear as 1-2-3:

1

Know the business

- Constantly monitor and analyze the markets
- Understand competitive pricing (legal and illicit markets, in each region)
- Understand the brand's product performance compared to that of the competition
- Understand the business impact of regulations, taxation, and retailer margins by region

2

Optimize the company's operational efficiencies

- Set and maintain quality standards that are consistent with the brand promise
- Maximize efficiencies to minimize the cost of goods and enable flexible pricing
- Leverage data in operations and cultivation to benchmark KPIs, measure quality and standardize growth curves to increase efficiency

3

Know the consumer

- Know the brand's target consumers and uncover insights about them to use to create a competitive advantage in product offerings and communications
- Seek innovations that command a price premium
- Communicate the brand's benefits to help consumers assess value

There is no room for complacency in cannabis. Pricing, similar to other business levers in cannabis, will continue to change rapidly. The most successful companies will need to be agile, using data and best practices to meet the challenges of a complex retail pricing environment.

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