Annual Hemp & CBD Industry FACTBOOK

The definitive benchmark analysis of Hemp and CBD markets in the United States

2018 | 1st Edition

Excerpt Includes:
• Editor’s Letter
• Overview and Insights
• 3 Critical Charts and Key Takeaways
• Farm Bill & Epidiolex Updates
LETTER FROM EDITOR

EXECUTIVE SUMMARY

Everything old is new again. Hemp once tied the world together, and after hundreds of years of shifting regulations, the plant is starting to circle the planet once again.

Four hundred years ago, the British needed tons of hemp to maintain their global empire powered by shipping dominance. But the Industrial Revolution brought steamships and electric motors, gutting the global market for hemp. The 20th century saw the weakened industry all but disappear as governments around the world banned production – all because one variant of the plant, marijuana, produces the intoxicating chemical THC.

Now, hemp is undergoing a revival. The same governments that banned hemp production because of its conflation with marijuana are reopening business opportunities, and private entrepreneurs are investing huge sums in developing the hemp market.

But hemp’s revival is happening largely in the dark. Some countries don’t track how much is being grown, and others have legal barriers that prevent hemp from getting the kind of data collection seen with other crops.

In the United States, the focus of this report, the Department of Agriculture currently considers hemp legal only if grown as part of a state-backed pilot project. Because it is monitored by the states rather than at the federal level, no national records are kept on the nascent industry, even how much is growing and what farmers are doing with it.

And each state keeps wildly varying data on how their hemp experiments are going.

The plant also remains subject to constantly shifting regulations. In the U.S. – at the time we were compiling this report – Congress was debating whether to remove more legal barriers to growing hemp or return to 20th century bans on growing the plant. Meanwhile, U.S. drug authorities were considering whether to change hemp’s legal classification because of the development of an FDA-approved drug therapy derived from CBD.

In this time of great hemp uncertainty, when market estimates vary exponentially and entrepreneurs have few government resources to find reliable data, this report offers exclusive intelligence about the U.S. hemp market culled from extensive research and talking with entrepreneurs who know this industry best.

Like the tough fibers wrapping hemp’s core, the plant’s market potential is hard to untangle. The modern hemp industry has largely been reliant on optimistic projections from activists who want to see hemp’s revival flourish, rather than evidence-based data points about the market.

That’s how this Hemp & CBD Industry Factbook is different. You won’t find rosy projections that have no explanation. You won’t find best-case-scenario hunches that assume the challenges facing the hemp industry are in the past. When we make educated guesses on the future of the hemp market, we’re transparent about our assumptions. And where data doesn’t exist or seems incomplete, this report errs on the side of facts.

Our estimates and projections come with exclusive financial and operational data shared by people working in the hemp industry. Hemp Industry Daily would like to thank the National Hemp Association, the Hemp Industries Association, the Colorado Hemp Co. and PNX Botanicals for their help crafting and spreading the word about the hemp survey.

Best Regards,

Kristen Nichols
Hemp & CBD Industry Reporter
Exclusive Insights from This Factbook

Optimize your business decisions with all-new data and analysis on hemp and CBD exclusively published in this report. Apply research-driven insights from *The Hemp & CBD Industry Factbook* to understand economic, agricultural and regulatory developments impacting your position and growth in the industry. The thorough evaluations of current and upcoming industrywide challenges in this report are fundamental for maintaining a competitive edge in the industry today.

**FROM THIS FACTBOOK, YOU CAN EXPECT:**

**Authoritative analysis of looming regulatory changes based on revived interest in today’s hemp market**
- Explanation of complex policy updates contributing to rapid change in the industry.
- The role of global trade and imports policy already affecting U.S. market opportunity.
  ➔ Is the U.S. poised to compete with powerhouse producers like Canada and China? While domestic production has grown rapidly, fluctuating import trends paint a different picture of how domestic producers are keeping up with hemp & CBD demand.

**Breakdowns of preliminary considerations and obstacles across each U.S. state**
- State-by-state requirements and fees for licensing and testing.
- Information on seed regulation and licensing for growers in each state.
- Market forecasts revealing realistic projections and expectations for new and existing hemp ventures.

**Comprehensive information for processors and extractors to consider as demand for CBD surges**
- Profitability for entrepreneurs entering or expanding current efforts in hemp extraction.
- Top challenges facing today’s processors – from fundraising to scalability and more.
- Established professionals’ outlooks and positions on the growing demand for CBD products.

**A closer look at cultivator contributions and approaches to growing hemp**
- Data regarding land currently allocated to various aspects of hemp production.
- Revenue reports from previous years’ sales alongside expectations for future earnings.
- A breakdown of cultivators using seeds versus clones to grow hemp, and the role of policy and regulation in the decision.
- The portion of farmers growing hemp under contracts versus those growing independently and selling their product after harvest.
  ➔ Learn about the benefits of each approach and understand why cultivators favor one over the other.

**Current retail trends and methods for profitably introducing hemp and CBD to consumers**
- Current sales and marketing tactics for CBD and the viability of different approaches.
- The role of e-commerce in hemp and CBD sales, and how retailers position their products when choosing brick-and-mortar outlets.
- Percentage of revenue generated from hemp and CBD sales in retail stores.
  ➔ The findings and analysis of total revenue from hemp-exclusive establishments compared to revenue from assorted-goods stores are important to note for retailers looking to maximize.
The Hemp Plant

The hemp plant has many different uses, which can generally be divided into three distinct buckets based on the parts of the plant:

- **Flower**
- **Seeds**
- **Fiber/stalks**

The market for hemp products, however, is distilled even further, with hemp flower constituting the vast majority of hemp sales, dwarfing hemp seeds and hemp fiber/stalks combined.

<table>
<thead>
<tr>
<th>FLOWERS</th>
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<tbody>
<tr>
<td>Rich in cannabinoids including CBD</td>
</tr>
<tr>
<td>Can be used for tinctures, extracts and medicines</td>
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<table>
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<tr>
<th>SEEDS</th>
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<tr>
<td>The edible part of the hemp plant</td>
</tr>
<tr>
<td>Can be pressed into oil for food and other purposes</td>
</tr>
<tr>
<td>May be shelled for “hemp hearts,” which are packed with healthy protein and amino and fatty omega-3 acids</td>
</tr>
<tr>
<td>When milled, becomes hemp protein powder</td>
</tr>
<tr>
<td>Can be processed for CBD*</td>
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<tr>
<th>FIBER/STALKS</th>
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<tr>
<td>Include long fibers and a woody inner core (hurd)</td>
</tr>
<tr>
<td>Fibers can be spun into cloth</td>
</tr>
<tr>
<td>Hurd can be used as insulation or pressed into forms for use in manufacturing or construction</td>
</tr>
<tr>
<td>Can be processed for CBD*</td>
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*Hemp seeds and fibers can contain CBD, though the flowers contain much more and are most valuable in commercial CBD extraction.
Current national sales predictions for hemp and CBD mirror the earliest and most exciting predictions for the cannabis industry overall. Between traditional brick-and-mortar stores and a booming e-commerce channel, CBD is projected to keep steady market growth through 2022, easily breaking $1 billion by 2020. Estimates presented here are modest and hinge greatly on legislation that has yet to be written, but even amid regulatory constraints and ambiguity about hemp’s position in the market today, researchers have confidently concluded this is not a stagnant industry, nor is it expected to slow down any time soon.

- Estimates for sales vary between publications, but based on comprehensive study and industry surveys, these projections are the most accurate and carefully considered presentations today – despite the lack of governmental reporting on this agricultural commodity. This continued growth begs the question: Is there a limit – and what is the limit – to the potential for this industry?
Optimism reigns supreme among hemp cultivators. While 64% of survey respondents reported that their 2017 revenue left much to be desired, the same group of respondents have a positive outlook about their profits in 2018 – 77% expect to widen profit margins this year. With so much to consider, from legislation moving down the pipeline while this book was being finalized to growing consumer interest deepened by medical research and mainstream media reporting, cultivators are not naive to the moving parts in the hemp industry and are maintaining genuine optimism for the potential of their crops to generate measurable profit very soon.

- With these considerations, what will optimism for industry growth bring to the market? Will confidence in profits translate to heightened competition or accelerated market saturation in the coming years for those already establishing themselves?
Hemp- and CBD-derived products maintain at least one distinct edge over their THC counterparts: the ability to distribute product through online sales. Survey data suggests many hemp and CBD retailers are not aligning their products alongside other marijuana and THC merchandise. With many retailers taking advantage of online sales, those who do offer products in a traditional storefront report their stock does not often commingle with products in a dispensary. Hemp-devoted stores comprise the majority of physical establishments carrying hemp and CBD products, while assorted-goods stores, like natural grocers or boutique beauty and cosmetic providers, are the second-most-popular location. While subject to change, and possibly reliant on marijuana’s recreational and medical legalization overall, these early trends reflect a distinct difference in how hemp professionals are beginning to position themselves in the market against multiple facets of THC products and distribution methods.

• You need to understand what this means for business strategies across the entire scope of hemp and CBD. What is the best way to get your products into the hands of consumers, and have “best practices” already been established? What are the opportunities to build on these strategies to distinguish yourself if you’re just entering the market today?
FARM BILL & EPIDIOLEX UPDATES

As this Hemp & CBD Industry Factbook heads to print, two branches of government the U.S. government are mulling changes that could determine whether the hemp renaissance expands – and how.

2018 FARM BILL

The U.S. Congress is considering an update to the 2014 Farm Bill, which ushered in the country’s modern hemp industry. That law allowed states to experiment with pilot projects or research on the plant, and notably, it didn’t ban states from allowing private farmers to experiment while pocketing profits from selling hemp and all its components. At least 40 states changed their laws to allow hemp pilots.

Now the hemp landscape could be upended again by Congress with the 2018 Farm Bill. The legislative branch has a variety of options related to hemp to consider. As of our publication deadline, the House and Senate were still working to reconcile the differences between their passed bills to send a final version to the president’s desk. The House passed a version with no continuation of the hemp experiment, while the Senate adopted a version completely removing hemp from the Controlled Substances Act.

As the House and Senate negotiate that final version, the hemp options include:

• The state-by-state model set up in the 2014 Farm Bill could be extended.
• Congress could remove hemp from the Controlled Substances Act, making it legal to grow hemp in any state, unless the state passes an additional law to ban it.
• Congress could end the hemp experiment entirely, throwing the nascent industry into the same legal posture as its marijuana colleagues. Hemp would remain a controlled substance, and entrepreneurs would have to rely on laissez-faire federal drug enforcement to continue making money under state laws.

The hemp industry has been counting on the second option, which potentially would lead to an avalanche of investment in all sectors of the hemp and CBD industries. However, investor enthusiasm has prompted fears of hemp oversupply from large farmers looking for a profitable hedge against low commodity prices seen for corn and wheat.
FDA APPROVAL LEADS TO DEA CONSIDERATION

Congress isn’t the only branch of government that could make or break hemp’s future. The executive branch made a significant CBD change as a result of the U.S. Food and Drug Administration’s decision to approve a CBD medicine, Epidiolex.

In September, the U.S. Drug Enforcement Administration moved FDA-approved CBD products from Schedule 1, the most restrictive class of controlled substances, to Schedule 5, the least restrictive class. The change affects CBD derived from any type of cannabis, so long as it has THC content of 0.1% or less.

At the time this Factbook went to print, the rescheduling affected only Epidiolex, a drug made from marijuana grown in the United Kingdom. Developed by GW Pharmaceuticals, the medication treats rare types of epilepsy and is the first nonsynthetic cannabinoid approved for medical use in the U.S. Its approval also marked the first time the top U.S. drug regulator acknowledged any medical value in a plant that has long been classified as having none.

Only a few thousand people have the kinds of epilepsy treated by Epidiolex. But the rescheduling decision affects the broader U.S. hemp industry in important ways.

The change frees other big pharmaceutical researchers to investigate new drugs using the CBD molecule. The pharmaceutical industry’s deep pockets could dwarf any research on CBD that has been done to date and could open the door to a flood of patents regarding other commercial CBD formulations.

The DEA’s action could also change the behavior of GW Pharmaceuticals, the company that spent millions on Epidiolex. The company has repeatedly said it does not intend to stifle competitors that make CBD treatments. But some entrepreneurs fear the company may change course and file claims against CBD manufacturers, arguing that other preparations infringe on its patent.

For these reasons, pharmaceutical CBD has an uncertain future at best.
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