The market for cannabidiol (CBD) products is growing, driven by the public's insatiable demand for anything that includes the letters 'CBD' on its label. CBD is highly attractive because of its innumerable health benefits, and its ease of availability is an added convenience.

Unfortunately, the demand for CBD products has grown so fast that quality control is being sacrificed.

CBD sellers who take shortcuts are often rewarded for their recklessness. To make the quickest buck possible, many choose to skip the testing phase. Other contract labs may work cheap but are inexperienced or unreliable. Even those who work with more established labs are taking their results at face value, which may not be justified in every instance.

The U.S. Food and Drug Administration (FDA) is deeply concerned about truth-in-labeling in the CBD industry. They are protective of the health of consumers, which could be compromised by taking substances with hidden or missing ingredients. Consequently, the FDA sponsors periodic testing that puts CBD labeling claims under scrutiny.

From the perspective of the CBD industry, the results of these tests have been both disappointing and revealing. The FDA has shown that CBD labels are generally unreliable, which could have severe ramifications for CBD manufacturers and retailers if nothing is done to address the situation.

Preliminary Testing Reveals the Problem

The FDA began testing CBD products in 2014. They've analyzed a full spectrum of CBD items since that time, including capsules, oils, tablets, gummies, tinctures, liquids, edibles, topical substances, and pet treats.

These tests measure actual CBD content, which is then compared to the content claims made on labels. The tests can also verify that only negligible traces of THC are present. According to federal law, CBD products that contain more than .3 percent THC must be reclassified as marijuana and are thus illegal to sell under the CBD banner.

Between 2014 and 2018, the FDA tested a limited number of CBD products. In total, 78 products that claimed to contain CBD were subjected to analysis. Shockingly, only about one-third of the products tested in 2014 contained CBD levels that were close to the quantity advertised on their labels ('close' meaning within 20 percent one way or the other). Approximately 57 percent of the products tested over the four years contained measurable levels of THC, although only one violated the .3 percent federal limit.

In 2019, 34 products were tested. This sampling represented an increase in the single-year average and was a response to the federal government's decision to legalize hemp nationally in the 2018 Farm Bill.

Once again, only one-third of these products tested met the plus-or-minus 20 percent parameter, meaning two-thirds of consumers were either getting more or less CBD than they bargained for, either of which could have a problematic effect on their health.

The CBD Mislabeling Continues

Still dissatisfied with the size of their sampling, the FDA made a serious effort to broaden its CBD testing program in 2020. They felt a particular urgency to do so, with the demand for CBD products expanding so rapidly. There was also concern that the small sample size from previous tests might be producing unreliable or un-projectable results.

Throughout the 2020 testing program, the FDA looked at 147 products in total. These were selected randomly from a master list of 500 CBD products available through various online outlets. Tinctures and gel caps with CBD oil comprised more than 50 percent of the total, with gummies, edibles, and oil capsules or tinctures for pets also represented in the sampling.

In comparison to previous studies, a more significant percentage of the CBD products tested met the required content standards (within 20 percent of listed CBD quantities). But the overall results were still dismal, with just 45 percent of the products matching these rather loose requirements.

A significant majority of the remainder (more than two-thirds) exceeded the listed CBD by more than 20 percent. This suggests that poor manufacturing techniques and/or inaccurate laboratory testing were the problem more often than deliberate deception (i.e., intentionally "watering down" the products). While CBD is generally safe, its overconsumption has been linked to diarrhea, dry mouth, drowsiness, fatigue, and/or a loss of appetite in some users.

The results may indicate some improvement in the ability of third-party labs to measure CBD content accurately. But 45 percent is still less than halfway to the industry's ultimate goal. Companies that sell traditional beverages and food products are expected to meet the 100 percent accuracy in labeling standards, and there's no excuse for CBD manufacturers lagging so far behind.

It should be noted that almost one-third of the products tested did not include detailed data about CBD content on their labels. This practice indicates that 'buyer beware' is already a reality for many CBD and hemp extract users, who must act entirely on faith when they purchase these items.

Facing the Consequences of Failure

Many CBD product companies submit their products for independent, third-party testing. The data obtained is then included on product labels, which should, in theory, give consumers an added layer of protection. Third-party testing should also benefit manufacturers since it presumably gives them a marketing edge over companies that don't pursue independent verification of CBD content.

But the benefits for consumers and manufacturers alike are negated if the independent labs are unreliable.

Thanks to the public's eagerness to try its products, the CBD industry has been able to skate by so far, despite ongoing quality control problems. But the latest FDA study seems to be getting more publicity than past studies, and that may portend a bleak future if nothing is done to correct the issue.

The FDA doesn't have the time or resources to test *all* CBD products on the market. If they did, consumers could check their reports and adjust their purchasing habits accordingly. Since the FDA can test only a limited sampling of the thousands of CBD products available, astute consumers may have to decide to judge all (or most) manufacturers guilty by association. They may stop buying CBD products altogether, or limit their purchases exclusively to items they've bought and liked in the past.

If poor labeling practice continues, the entire CBD industry will bear the stigma. The industry as a whole must do a better job of policing itself or eventually face the consequences in reduced demand for its products.

Also, testing laboratories must make a concerted effort to improve their methodology to ensure more accurate and reliable results—and help may be on the way.

In July of this year, the U.S. Department of Commerce launched a new program designed to help CBD testing labs correct their mistakes and improve their performance. This new venture, known as the Cannabis Quality Assurance (CannaQAP) initiative, will sponsor controlled tests to evaluate laboratory capacity to measure the contents of hemp extracts accurately. Feedback will be provided anonymously, giving labs that participate valuable information that cannot harm or embarrass them in any way.

Participation in this initiative is voluntary. But CBD testing laboratories should view it as mandatory, given their overall failure to meet client needs and consumer expectations.

Through their expanded testing program, the FDA has, in essence, challenged the CBD industry to clean up its act. In the long run, it is clearly in the best interests of CBD manufacturers to do so. If they don't, much stricter government regulation may be the result. CBD consumers deserve better than they've been getting, and one way or the other changes should be forthcoming.

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