



Unclear testing standards for CBD oil in the UK have led to uncertainty over test results on THC and CBD content for many popular CBD products.

A report in [the Daily Mail](#) newspaper last month alleged that CBD oil from the Dutch company Jacob Hooy, which is sold at the high street health foods chain Holland & Barrett, had THC levels above the stated limit of 0.05%. Earlier in the year a [BBC investigation](#) (pictured) found issues with a number of CBD products – also including ones from Jacob Hooy, as well as from Celtic Wind, KOD, Love CBD and HemPoland.

Representatives from Hempflax, which supplies Jacob Hooy with hemp and CBD, said the Mail had not given them the batch numbers of the oils tested and that this meant they could not conduct third-party tests to dispute the Mail's claims.

At the core of the issue is how exactly these oils are tested.

The main problem is that there are no clear laboratory standards, leading to confusion and vast variations in results.

“A lot of laboratories are facing difficulties in finding the correct values, especially when you deal with a product that is so-called ‘full spectrum’,” said Mark Reinders, CEO of Hempflax.

“Because we are working with the whole plant extract we have a very complex matrix of cannabinoids, but also plant waxes. A very complex matrix makes it difficult to analyse. A lot of laboratories do not have the right standards to do that.”

Recommended safe daily intake

Other CBD companies have also said test results can vary between labs.

The BBC analysis looked at both THC and CBD content. It reported tests from the International Cannabis and Cannabinoids Institute in Prague, which found levels of THC beyond European Food Standards Agency (EFSA) recommendations.

The EFSA recommends 1 µg of THC per kg of bodyweight per day as safe for consumption. On that basis, an average adult can consume about 70 µg per day, a finding that is supported by studies from the UK government's Committee on Toxicity (COT).

The BBC programme Trust Me, I'm A Doctor reported THC levels above that in products from Love CBD. A spokesperson for the company said it has had around 100 lab tests done for its products in the last year, none of which reported THC levels anywhere near those reported by the BBC. It also has in-house tests done by the suppliers it sources its cannabis extracts from and none of them had THC levels remotely close to those found by the BBC.

"I've looked over those supplier lab results and for our product to have 1% THC is utterly inconceivable given these base elements," the spokesperson said. "When it comes to THC, our company policy is a limit of 0.05%. This is what is called a contaminant level. Our lab results for this year are nearly all below that 0.05% level, including for the Entourage Oil."

Reinders added: "No one is getting stoned or high by consuming CBD products with 0.05% of THC."

Steps towards agreed reference standards

Jacob Hooy also responded further to the BBC's investigation. "One important lesson we learned is that there seems to be no uniform and recognised standard for the laboratory analysis of CBD products anywhere in the EU, or elsewhere. This has raised the question whether the issue is only with CBD products, with the laboratory methods used to perform quality control, or with both," the company said.

"While the market for CBD has grown rapidly, it is becoming increasingly recognised that significant differences may exist between laboratories, even between those that claim to be certified and validated. This may be caused for example by differences in cannabinoid reference standards and methodology used, or the fact that CBD oils have many different compositions with regards to the carrier oil. Consequently, it is not clear which test results should be regarded as final and binding."

In order to address this, Jacob Hooy has taken a number of actions.

It volunteered to be part of a CBD ringtest, or quality assurance programme, in which a range of samples from seven different companies were tested by the same lab (Eurofins Proxy) in order to identify whether there were any shortcomings in the CBD product pipeline.

This led to the establishment of a new industry association, the Cannabinoid Advisory-bureau Netherlands (CAN). The CAN currently has 22 members, and is working on publishing a testing standard for its members, based on analytical methods described in the European Pharmacopeia for medicinal products, Jacob Hooy said.

The company has also instructed Hempflax to set up a comparative test among several European laboratories. "In this test, the exact same samples will be analysed by multiple labs in order to identify any discrepancies between the analytical results. The final goal is to come to one single set of tests that should be used to determine the composition and quality of CBD products," it said.

Jacob Hooy told Hempflax a degree of nuance to be injected into conversations about testing results. "Although we do not wish to contest the accuracy of the lab you choose to do the analyses, we do want to draw your attention to the [unresolved] differences that exist between laboratories, in the absence of clear regulations to guide them," the company said. "Jacob Hooy is actively involved in trying to address this gap in the current way CBD products are produced and approved for market."

What This Means: Testing is becoming an increasingly fraught issue for the CBD industry and some form of standards must be implemented before differing test results lead to consumer mistrust in the category as a whole.

As part of that, the industry should also agree on standards for labelling and dosing – an inherently linked issue that is also becoming increasingly problematic.

For example, in response to the BBC investigation one company, KOD, said its product contained both CBD and CBDA, the acidic precursor to CBD that has yet to be decarboxylised. It had counted both together in arriving at the figure of 5% CBD stated on the label. But testing for only CBD would result in significantly lower figures.

KOD: "We are currently looking to modify packaging and will definitely consider adding extra information in order to help our customers."

Complications such as this could lead to a dent in consumer confidence in a still developing industry that has yet to educate large portions of the population. Greater standards in all these areas would help that process significantly.

– Moriah Costa *CBD-Intel contributing writer*

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