PathogenDx

Setting the standard in DNA testing

WHERE'S MY MOLD?

A Microbial methods comparison study in Cannabis.

Have you ever lost a golf ball, a ring, or car keys? Sometimes, even though we know something exists somewhere (e.g. golf ball in the grass), we are unable to recover it. While this is common in our personal lives, the inability to detect mold in Cannabis shouldn't be commonplace.

A recent study by an independent cannabis testing lab compared methods of recovery for *Aspergillus*, a common mold found in Cannabis flower samples. *Aspergillus* ingestion and inhalation has been shown to cause health issues, including pleural disease, *Aspergillus* bronchitis, and eosinophilic pneumonia.

Recently, the Denver Department of Public Health and Environment conducted a random sampling from 25 dispensaries and tested cannabis flower, shake or pre-rolled joints and found an 80% failure rate, specifically plant matter testing above the maximum allowed for total yeast and mold. The failed plant matter wasn't typically covered in white and gray mold like an old piece of bread, but can still carry potentially toxic fungi that isn't detectable by the naked eye.

For healthy and immunocompromised cannabis users alike, less is more with *Aspergillus*, and that is why it matters. The results of the comparison for recovery of this health-inhibiting fungus demonstrate a significant need to reevaluate decades and century old testing technologies.

Traditional methods for detection, such as plating and even DNA based technology such as real-time PCR (qPCR), were unable to recover *Aspergillus* in field samples grown at a cultivator.

This chart summarizes the detection based on 10 samples that tested positive for *Aspergillus* using the molecular 'gold-standard' of Next Generation Sequencing. As the visual shows, *Aspergillus* is undetected in all 10 samples tested with plating. Performing slightly better, qPCR methods were able to recover 2/10 positive samples. Price-conscious, multiplexing Microarray technology conducted at two different laboratories, however, had significant concordance with expensive, and very complicated sequencing.

For growers, laboratories, and more importantly for the patient and consumer, it is time to ensure that Cannabis is contaminant-free. It may be time to break the plates and the 'mold' and adopt a new technology for the sake of ensuring quality and safety.

Complete study is here:

https://www.pathogendx.com/

Detection of *Aspergillus* in 10 Cannabis Flower Samples