

VICAM solutions empower you to:

- Manage cannabis quality with confidence
- Verify product safety and purity
- Meet internal and industry regulatory requirements with precise, actionable data

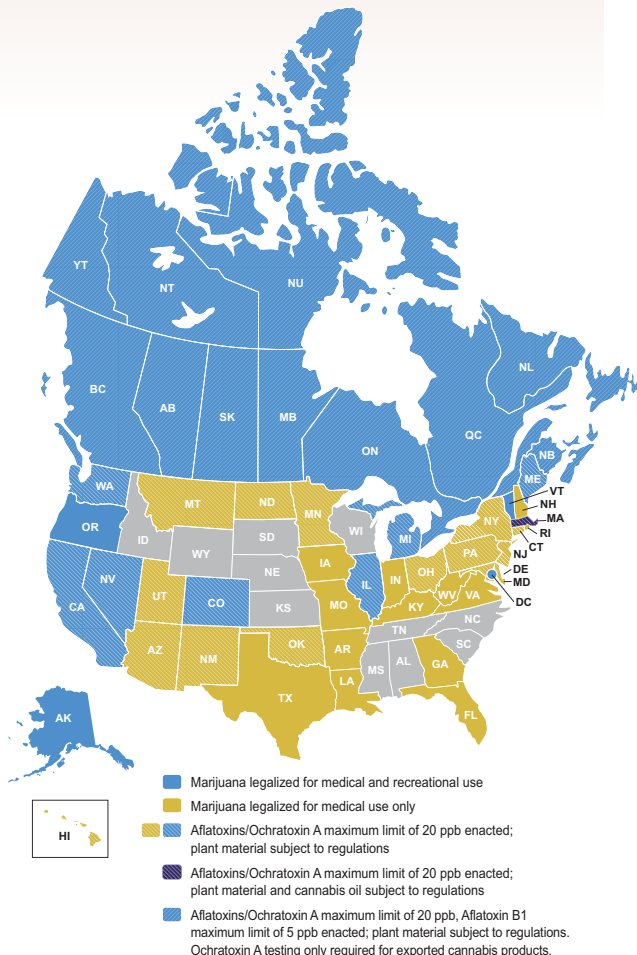


Figure 1. Medical and recreational cannabis laws across the U.S. and Canada

Safeguarding the Quality and Safety of Cannabis Derived Products

Medical Cannabis and other botanical products can become susceptible to mycotoxin contamination during cultivation, storage or processing. The natural byproducts of several mold species, aflatoxin and ochratoxin present serious health risks to humans and animals including liver toxicity and immune suppression. Aflatoxin is one of the most potent natural carcinogens known to exist, and is classified as a Group I carcinogen according to the International Agency for Research on Cancer (IARC).

Designing and implementing a sound mycotoxin monitoring plan is a means of maximizing product value, adapting to an evolving regulatory landscape and enhancing industry credibility. Delivering reliable evidence of product safety is critical to earning customer loyalty and demonstrating an industry-wide commitment to patient well-being.

To help achieve these goals, VICAM provides a wide range of solutions to ensure that medical cannabis is free from contamination by aflatoxin and ochratoxin. From simple, on-site detection using qualitative strip tests or fluorometer, to highly sensitive laboratory based approaches using HPLC, UPLC or LC-MS analysis in the laboratory — VICAM brings proven aflatoxin and ochratoxin detection and monitoring to the cannabis producer, processor and analytical laboratory stakeholder.

Complying with Emerging Safety Standards

Global regulatory agencies face increasing pressure to enact safety and quality measures for cannabis products. U.S. States and Canada responded with safeguards in the form of maximum allowable levels for mycotoxins in cannabis products - restricting total aflatoxins (B1, B2, G1 and G2) and ochratoxin to less than 20 parts per billion (ppb), individually or as a combined total (See Figure 1). Given the widespread call for strict cannabis safety standards and mounting concern about the carcinogenic potential of these contaminants, officially mandated mycotoxin testing has become the rule rather than the exception — driving the need for sensible, innovative detection methods.

Rapid, Accurate Methods for Medical Cannabis Mycotoxin Testing

VICAM's comprehensive portfolio of mycotoxin testing solutions brings versatile and practical testing capabilities to your business and laboratory. With the speed to isolate toxins in less than 10 minutes and the sensitivity to detect at parts-per-billion to parts-per-trillion levels, our technologies are designed to help you ensure the purity and safety of your medical cannabis products.



AflaTest™ WB

AflaTest WB is a quantitative method for the detection of aflatoxin in medical cannabis. VICAM's advanced biotechnology permits the precise measurement of aflatoxins B1, B2, G1, G2 and M1 in both pristine and complex samples. The AflaTest WB mycotoxin testing system can be used in a wide variety of settings - from field locations to the quality control department to the analytical testing laboratory.

BENEFITS

- **Convenient** – For use with fluorometer, HPLC, UPLC or LC-MS
- **Comprehensive** – Isolate and detect all aflatoxins
- **Durable** – Long shelf life; requires no refrigeration
- **Versatile** – Methods for cannabis flower and concentrates
- **Wide Range** – Detects levels as high as 100 ppb with a LOD of 0.25 ppb
- **Safe** – Uses fewer toxic materials than traditional methods



OchraTest™ WB

OchraTest WB is a quantitative method for the detection of ochratoxin A with fluorometer, LC and LC-MS in medical cannabis. Using wide bore immunoaffinity columns with a total volume of 3 mL, compared to 1 mL in VICAM's standard columns, OchraTest WB allows for a faster flow rate preferred by many laboratories and is the ideal cleanup step for LC and LC-MS detection.

BENEFITS

- **Exclusive** – Specifically for Fluorometer, HPLC, UPLC or LC-MS use
- **Durable** – Long shelf life; requires no refrigeration
- **Versatile** – For use with a variety of samples
- **Wide Range** – Detects levels as high as 100 ppb with a LOD of 3 ppb with fluorometer or lower with HPLC or UPLC
- **Fast Flow** – Passes more volume over the column





AflaOchra™ HPLC

AflaOchra HPLC is the only test that employs a single column to produce precise numerical results for both ochratoxin A and the aflatoxins B₁, B₂, G₁ and G₂ in medical cannabis. AflaOchra HPLC is safe and simple. It can be performed in less than 30 minutes (excluding sample preparations and extraction) and requires only basic HPLC skills.

BENEFITS

- **Exclusive** – For HPLC, UPLC and liquid chromatography/mass spectrometry (LC-MS) use
- **Comprehensive** – Detects aflatoxins B₁, B₂, G₁ and G₂ and ochratoxin A
- **Durable** – Long shelf life; requires no refrigeration
- **Versatile** – Can be used with a variety of samples
- **Wide Range** – Measures levels as low as 0.25 ppb and as high as 100 ppb
- **Safe** – Requires less toxic materials than other methods



AflaCheck™

On the spot medical cannabis testing results translates to fast decision making, thereby mitigating the costly consequences of mycotoxin contamination. AflaCheck is a qualitative one-step test kit for the detection of aflatoxin which is based on the highly specific reactions between antibodies and target contaminant.

BENEFITS

- **Fast** – Results in as little as 7 minutes
- **Simple** – No special training or equipment required
- **Accurate** – Detects the presence of aflatoxin at levels of 20 ppb
- **Convenient** – Can be performed anywhere
- **Durable** – Long shelf life, no refrigeration required
- **Economical** – Inexpensive first step in your testing protocol





A Waters Business

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