



1. Who can submit samples to AFL for testing?

AFL can accept samples for testing from:

- Health Canada Licensed Producers;
- Persons registered with Health Canada to produce a limited amount of cannabis for their own medical purposes under the Cannabis Regulations;
- Persons registered with Health Canada under the Cannabis Regulations to have a designated person produce a limited amount of cannabis for the persons own medical purposes;
- Health Canada Licensed Laboratories.

Unfortunately, our laboratory is unable to accept cannabis and cannabis products obtained from or produced by unlicensed organizations or unregistered persons.

2. What cannabis testing does AFL offer?

The AFL provides a broad range of analytical and diagnostic testing services and scientific expertise to the cannabis industry. The lab can currently test for potency, pesticides, heavy metals, microbial analysis, foreign matter, plant disease diagnostics and more. Please visit afl.uoguelph.ca for more information on our cannabis testing services.

The lab is working towards expanding our scope of cannabis testing and always strives for continuous improvement, so please feel free to contact us with any questions or inquiries regarding your specific cannabis testing needs.



Health Canada Testing (Finished Product)

You have the option of selecting one or more of these tests, or instead opt for our convenient, full service Full Health Canada Panel.

Full Health Canada Certificate of Analysis

Includes: Pesticides (HC 96), Potency, Heavy Metals, Microbial Analysis Panel, Aflatoxins (B1& Total (B1 + B2 + G1 + B2)), and foreign matter

Pesticides (ppb)

- LC-MS/MS & GC-MS/MS (In-House Methodology)
- 96 mandatory Health Canada residues

Potency (%w/w & mg/g)

- UPLC TUV (In-House Methodology)
- Total THC & Total CBD (%w/w)
- 5 Cannabinoids (Δ 9-THC, THCA, CBD, CBDA & CBN)



Heavy Metals (ppb)

- USP <232>, ICH Q3D
- Arsenic, Cadmium, Lead & Mercury

Microbial Analysis Panel

Included Microbial Analysis	Report	Method Reference
Total Aerobic Microbial Counts	CFU/g or CFU/mL	MFHPB-33
Total Yeast and Mould Counts	CFU/g or CFU/mL	MFHPB-22
BTGN Option 1: Bile-tolerant Gram Negative Bacteria for Inhalation Products	POS/NEG	EP 2.6.13, EP 5.1.4
BTGN Option 2: Bile-tolerant Gram Negative Bacteria for Non-Inhalation Products	CFU/g or CFU/mL	EP 2.6.13, EP 5.1.8
E. coli	POS/NEG	EP 2.6.13
Pseudomonas aeruginosa	POS/NEG	EP 2.6.13
Salmonella	POS/NEG	MFHPB-20
Staphylococcus aureus	POS/NEG	EP 2.6.13

Mycotoxins (ppb)

- EP 2.8.18 validated method
- Aflatoxin B1 & Total Aflatoxin (B1+B2+G1+G2)
- Ochratoxin A (for export)

Foreign Matter (% Presence/Absence)

- Visual inspection of cannabis only available as part of Full Health Canada Certificate of Analysis service.
- If you have found foreign material contaminants in your product that you need identified, please contact us or visit [Foreign Contaminant Identification](#) for more information.



Cannabis Horticulture Testing (Fresh Plant Tissue)

• Nutrient Testing

Cannabis Package

Total nitrogen (TN), Nitrate-nitrogen (NO₃-N), Phosphorus (P), Potassium (K), Magnesium (Mg) and Calcium (Ca), Aluminum (Al), Boron (B), Copper (Cu), Iron (Fe), Manganese (Mn), Molybdenum (Mo) Sodium (Na), Sulphur (S) and Zinc (Zn) in botanical material.

AFL is an OMAFRA-accredited laboratory using OMAFRA-accredited tests. Although tissue analysis is not specifically part of the OMAFRA accreditation program, OMAFRA-accredited labs demonstrate the necessary proficiency to perform plant tissue analysis. As an OMAFRA-accredited lab, the AFL participates in the North American Proficiency Testing Program (NAPT).

• Disease Diagnostics

[Available Disease, Virus, Viroid and other Pestilence Diagnosis](#)



3. How much sample is needed for testing?

Sample Size Requirements

Finished Product Testing

The AFL tests samples **as received**. That means if the sample contains stems and seeds, it will be included as part of the sample.

Test Method	Minimum Sample Size
	Dried Flower (g)
Full Health Canada Panel (potency, pesticides, heavy metals, microbial analysis, aflatoxins, foreign matter)	44 g (split packages into 2; 24 g for microbial & 20 g for everything else)
Potency	1
Pesticides (HC Mandatory 96)	1
Regulated Heavy Metals	5
Microbial Analysis Panel	24
Aflatoxins (B1 & Total (B1 + B2 + G1 + G2))	5
Ochratoxin A (export only)	5

For the Full Health Canada Panel, please submit your submission in 2 sample portions. One sample portion of 24 g for microbial testing only and a one sample portion of 20 g for all other tests. Separate sample portions reduce the number of times a sample is handled and protects sample integrity. Although this practice is strongly encouraged, the submission will be sub-sampled aseptically if needed.

Raw Material Testing

Disease Diagnosis: Please submit samples of the diseased plant or area of plant that shows signs of disease, but are not completely dead.

Plant Nutrient Testing: Please submit 50 grams of fresh plant tissue or sufficient sample to have 10 grams of dried plant tissue for testing. Please provide fully developed leaves from the current year's growth.

FOR DETAILED INSTRUCTIONS FOR THE COLLECTION AND PREPARATION OF SAMPLES TO SEND TO THE LABORATORY, PLEASE REFER TO THE: [Cannabis Sampling and Shipping Guidelines](#)



4. How do I submit samples?

For clients submitting cannabis samples for the first time, please contact the laboratory by email AFLinfo@uoguelph.ca or by phone toll free at 1-877-UofG-AFL (1-877-863-4235) to setup an account and ask any questions you may have. A Cannabis Chain of Custody Submission form will be emailed to you to submit with any samples you wish to submit.

FOR DETAILED INSTRUCTIONS FOR THE COLLECTION AND PREPARATION OF SAMPLES TO SEND TO THE LABORATORY, PLEASE REFER TO THE: [Cannabis Sampling and Shipping Guidelines](#)

Please note that a Cannabis Submission Form (Chain of Custody) must be included alongside your cannabis samples or there may be delays in testing your samples.

All of this is to ensure a seamless transition and clear documentation of chain of custody for when the samples arrive and are processed by the lab. Please know that we are here for you if you have any issues filling out the form!

5. How do I complete the AFL Cannabis Chain of Custody Submission form?

Please fill out all applicable fields on the form making sure to include your **Health Canada Cannabis license number** and **signature** in order to properly relinquish samples to the laboratory. The fields marked all “*” must be completed on the form. If you need us to help you fill out your form, please feel free to contact us via email at AFLinfo@uoguelph.ca or call us at 1-877-UofG-AFL.

PLEASE NOTE: THE AFL CAN'T PROCESS SAMPLES SUBMITTED WITH AN UNSIGNED CHAIN OF CUSTODY FORM. We'll need to contact you before proceeding.

IN KEEPING WITH CANADA'S CANNABIS ACT WE WILL NOT RETURN ANY SAMPLES.

6. Where do I send my cannabis samples for testing?

Cannabis samples can be delivered via courier or dropped off in person to:

Sample Reception
Agriculture & Food Laboratory
University of Guelph
95 Stone Road West
Guelph, ON
N1G 2Z4

*** Throughout the COVID-19 pandemic, our sample reception hours of operation for in-person sample drop-off is Monday to Friday, 8 AM – 5 PM (excluding stat holidays). If dropping off in person, local public health measures require you to wear a facemask and observe hand sanitation/physical distancing measures when inside our facility. ***



Most major couriers deliver parcels to the AFL on a daily basis. Please ordering expedited next-day delivery so you can track your parcel and ensure your samples arrive to the lab as soon as possible. Clients are responsible for tracking the shipment status during transit to the lab. Please do not ship samples on Fridays or days preceding holidays because they are likely to spend a weekend in the courier storage facility, and it may not be temperature controlled.

FOR DETAILED INSTRUCTIONS FOR THE COLLECTION AND PREPARATION OF SAMPLES TO SEND TO THE LABORATORY, PLEASE REFER TO THE: [Cannabis Sampling and Shipping Guidelines](#)

7. How should I package my samples for shipping?

Please use odour-proof, tamper-proof and leak-proof inner packaging. Outer packaging should not have any markings or advertising that indicates the contents of your package. These are simply guidelines and we encourage you to contact your courier service provider for their specific packaging requirements.

Please label your sample containers using indelible ink, making sure your information on the sample containers corresponds to the information on the Cannabis Submission Form (Chain of Custody).

Dried Flower

Package samples in retail packaging or in containers that are fit for purpose and uphold sample integrity. For regulatory testing, we suggest creating a physical barrier between the packaged sample and outer box with material such as bubble wrap or newspaper. This will help to prevent or minimize loss of potency actives and pesticide actives to yield a more accurate result. One of the ways the barrier helps is that it adds a layer of insulation around your product and has been shown to prevent the development of condensation within plastic product containers and bags during shipping.

Fresh Plant Tissue (nutrient and/or disease testing)

Place fresh cannabis in a plastic bag with paper towel to absorb excess moisture and prevent sample degradation. In warmer months, it may be preferable to pack fresh plant tissue in a cooler with ice packs to maintain sample integrity during transit.

FOR DETAILED INSTRUCTIONS FOR THE COLLECTION AND PREPARATION OF SAMPLES TO SEND TO THE LABORATORY, PLEASE REFER TO THE: [Cannabis Sampling and Shipping Guidelines](#)

8. What test methods does AFL use?

Per the Health Canada Cannabis Act and Regulations, we use validated methods which meet or exceed HC, EP, USP or ICH Q3D tolerance specifications for applicable tests. For more information, please contact AFL client services or visit our website (www.AFLuoguelph.ca).

9. What Licenses and Accreditation does AFL have?

The AFL currently has a Health Canada Analytical Testing license as well as an ISO/IEC 17025 accreditation through the Standards Council of Canada. Please visit [here](#) for more information on our accreditations.



10. What is your sample retention period & disposal policy?

For fresh cannabis tissue samples, samples will be retained for 1 week after all testing is completed. For other cannabis samples (dried, oil, etc.), samples will be retained samples for 2 weeks after all testing is completed. After these retention periods, we will dispose of the samples per Health Canada regulations. By law, cannabis samples submitted to the lab can't be returned.

11. What are your standard turnaround times? When can I expect my results?

Regulatory Test Methods

For Regulatory testing, if you order multiple tests your report will be ready and emailed to you when the test with the longest turnaround time has been completed.

Test Method	Standard Turnaround Times (business days)
	Dried Flower
Full Health Canada Panel (potency, pesticides, heavy metals, microbial analysis panel, aflatoxins, foreign matter)	15
*Potency	3
*Pesticides (HC Mandatory 96)	15
*Regulated Heavy Metals	10
Microbial Analysis Panel	7
*Aflatoxins (B1 & Total (B1 + B2 + G1 + G2))	10
*Ochratoxin A (export only)	10

**Rush testing is available upon request; please contact us for more details.*

Non-Regulatory Test Methods

Test Method	Standard Turnaround Times (business days)
Plant Disease Diagnosis	TBD: Differential diagnosis may require multiple tests
Cannabis Package - Nutrient Analysis	10

AFL Client Services Contact Information

Email: AFLinfo@uoguelph.ca

Website: AFLuoguelph.ca/cannabis