Medicinal Cannabis

A&L Canada Laboratories Inc. is a Health Canada accredited laboratory and possess a Dealers License under the Narcotic Control Regulations for the purposes of analytical testing of fresh or dried cannabis or cannabis oil. With over 30 years of experience in agriculture production to food safety we partner with our cannabis clients to provide analytical services from cannabis production to cannabis sale.

A&L Canada Laboratories Inc. provides a wide variety of microbiological and analytical tests for licensed producers of Medical Cannabis under the Access to Cannabis for Medical Purposes Regulation. (ACMPR)

Soil/ Media Analysis
A&L Canada offers a complete soil analysis package of your growing media that measures availability and fertility balance of all essential nutrients to optimize plant production.

Plant Tissue Analysis
In season plant tissue analysis provides a proactive management tool to monitor, adjust and maximize the plant’s production potential. Utilizing our own unique plant monitoring tissue program throughout each stage of the plant’s growth allows identification and adjustments before nutrition becomes economic limiting.

Water/ Solution Analysis
A complete water/ solution monitoring program is essential to maintaining optimum plant growth to maximize plant health and production potential. A&L Canada offers a complete water analysis package including macro and micronutrients, soluble salts, and interpretive ranges.

Plant Disease Diagnostics
Cannabis production is a highly technical controlled environment that requires continuous management to avoid production problems and economic loss. Early and rapid plant diagnostics is essential for disease management. A&L Canada’s team of experienced plant pathologists employ the latest biotechnology and diagnostic tools to provide rapid, accurate, plant disease diagnostics.

Medicinal Cannabis Finished Product Analysis
To round out our full line of services, A&L Canada offers a complete list of analysis on your finished product’s quality from pharmaceutical medicinal active compounds, heavy metals, aflatoxins, pesticide screens, microbiological product safety, extraneous foreign matter, and product uniformity.

Currently under the Pest Control Products Act (PCPA) there are only 21 pest control products that are approved for use on cannabis. Licensed producers must ensure that mandatory testing for the presence of pesticide active ingredients is conducted using validated methods for each lot or batch prior to it being made available for sale or provided to another party. A&L Canada Laboratories Inc. has validated methods for fresh or dried cannabis or cannabis oil for all 95 pesticide analytes proposed by Health Canada. A&L Canada Laboratories Inc. can also test all 95 proposed pesticides in various matrices such as growing media & soil, water & fertilizer solutions, fertilizers etc. to ensure you are complying with Health Canada regulations.

At A&L, we make it our business to anticipate your testing needs to provide fast, accurate results that help meet the challenges you face in an ever-changing environment.
Pesticide Residue Analysis

Did you know that A&L Canada Laboratories Inc. is a Standards Council of Canada (SCC) Good Laboratory Practices (GLP) compliant facility? A&L offers a wide range of testing capabilities for a broad range of pesticides at trace levels (ppb) using advanced instrumentation. Our testing services allow you to address a wide range of concerns pertaining to the use of and application of pesticides. Our pesticide analyses include herbicide, fungicide and insecticides on all crops, plant material, soil and water. We are experts in delivering consistent, accurate and timely results to provide our clients with the information needed to ensure environmental, crop and food safety requirements are met.

Water Quality for Spraying Pesticides and Foliar Fertilizers

Testing Water Quality for Sprayers (A&L fee code W8 and W6)

Key factors for water quality

1. Poor quality water can reduce spray efficacy

2. Use cleanest water possible for spray applications

3. Test water for turbidity, hardness, pH and EC

The quality of water used to mix with agricultural chemicals can reduce the effectiveness of the chemical applications. Poor quality water can:

- Reduce activity of agricultural chemicals
- Block spray lines or nozzles, reducing chemical application uniformity
- Increase wear of nozzles also causing reduced chemical application uniformity
- Increase wear on spray nozzles and sprayers

Water quality is variable and is dependent on the source of the water (eg. Rainwater, farm dams, river, well source, town reservoir.) Water quality can also vary throughout the year and after periods of high rainfall or drought.

Use the cleanest water possible when preparing agricultural chemicals for application. Where clean rain water is not available use the following guidelines to minimize spray failure due to poor quality water. Note that some agricultural chemicals are more sensitive than others to poor water quality; check the specific instructions on pesticide labels.

Continue reading complete tech bulletin on Water Quality for Spraying Pesticides & Foliar Fertilizers
Importance of Plant Analysis

Plant analysis is an important nutrient management tool. Monitoring of plant nutrient levels at critical crop growth stages through the growing season can help identify potential and existing nutritional problems that can affect crop quality and yield.

*In addition to our standard tissue program, we are pleased to offer a special Plant Monitoring Program (PMP)*

**5 Ways “Knowing Plant Monitoring” Pays:**

The following is a summary of the PMP.

1. Evaluate your anticipated cropping plans prior to the growing season and select the fields to be monitored with the PMP.

2. Enroll fields in the PMP by completing and submitting a PMP Enrollment Form.

3. A unique Plant Monitoring ID (PMID) is assigned for each field.

4. Plant samples are submitted with a PMP Submittal Form.

5. Sample analyses are reported on our special PMP Report Form.

*“Use Plant Analysis to Monitor Crop Requirements In Season.”*

Plant tissue analysis is a tool for diagnosing nutrient deficiencies. Unfortunately, crop yield can already be affected by the time visual symptoms of nutrient deficiencies are present.

Analyzing a plant tissue sample provides an evaluation of a crop’s nutrient status at the time the sample is taken. Soil physical and fertility status as well as weather conditions the crop has experienced up to the time of sampling may have influenced plant nutrient levels. A plant’s nutrient demand changes quickly in season as it goes from one stage of growth to another.

A crop that has set up to produce huge yield potential may run out of nutrient supply simply because of the demand that it places on the soil and the soils ability to supply certain nutrients before it becomes yield limiting. In some years a soil may not have the potential to finish those huge crops.
Plant Monitoring Program 1 2 3…

1. **When should I Sample?**
   A plant analysis monitoring program involves taking samples at multiple times during the growing season and accurately identifying the stage of growth so that we can match it to our data base of ranges. Individual tests results are evaluated for deficiencies, but particularly for nutrient trends over time. One nutrient may initially be sufficient, then trend low due to availability or demand that the crop is putting on the soil reserves.

2. **How often should I sample?**
   Monitoring nutrient concentrations on a regular basis throughout the growing season provides multiple opportunities to evaluate the plant’s nutritional condition to predict nutrient deficiencies that rob our crops of yield and quality. It is also an excellent tool to monitor and fine-tune crop nutrient supply during the growing season. Start tissue testing programs early before problems occur. Before taking tissue samples ensure that timing and location of samples correlates with interpretive data.

3. **What should I do after Sampling?**
   If a nutrient need is identified, in order for a nutrient correction to be effective, it has to happen early in season before the nutrient reaches critical thresholds. Once an element reaches these critical thresholds it is difficult to get a response. When using a monitoring program your largest crop will run out of nutrients the quickest. A poor or low tissue test does not always mean a poor crop; it usually means there is a lot of demand on nutrient supply because the crop is using the nutrients. In other words your best crop may have the poorest tissue test. Just make sure you identify this and respond with the corrective before it is too late.

**NOTE:** There is no cost to enroll fields in the PMP; you only pay for each plant analysis.

- All plant analyses are reported the next business day after receipt. Providing your E-mail address will ensure prompt delivery of reports and data and thus minimizing delays in decision making.
- Our PMP is an important tool to enhance your plant analysis program. Contact us to enroll your fields or for more information on this new service.

**PMP Quick Links**

- [PMP Enrollment Form](#)
- [PMP Submission Form](#)