



## June 2019 A&L Newsletter

### Maximizing Yield with Plant Tissue Analysis – Trends This Spring

The growing season can flash by in a hurry and the chores never seem to stop. That's why you could be missing signs of nutrient deficiency or toxicity in your valuable crops. Investing in plant tissue analysis from A&L Canada can protect your investment in crop production.

Based on tissue samples A&L has already received this year from across North America, some trends have emerged.

#### Spring 2019 A&L Plant Tissue Analysis Trends

<u>Barley</u> <ul style="list-style-type: none"><li>· Phosphorus levels are 32% deficient to low and 68 % sufficient to very high</li><li>· Boron levels are 52% deficient to low and 42% sufficient to very high</li></ul>
<u>Canola</u> <ul style="list-style-type: none"><li>· Boron levels are 88% deficient to low and 12% sufficient to very high</li></ul>
<u>Grapes</u> <ul style="list-style-type: none"><li>· Nitrogen levels are 75% deficient to low and 15% sufficient to very high</li><li>· Sulfur are 52% deficient to low and 48% sufficient to very high</li><li>· Boron levels are 16% deficient to low and 84% sufficient to very high</li></ul>
<u>Winter Wheat</u> <ul style="list-style-type: none"><li>· Phosphorus levels are 28% deficient to low and 72% sufficient to very high</li><li>· Magnesium levels are 40% deficient to low and 60% sufficient to very high</li><li>· Manganese levels are 48% deficient to low and 52% sufficient to very high</li><li>· Boron levels are 90% deficient to low and 10% sufficient to very high</li></ul>
<u>Spring Wheat</u> <ul style="list-style-type: none"><li>· Phosphorus levels are 37% deficient to low and 63% sufficient to very high</li><li>· Potassium levels are 17% deficient to low and 83% sufficient to very high</li><li>· Boron levels are 35% deficient to low and 65% sufficient to very high</li></ul>

These nutrient deficiencies can certainly hurt yield. To get the most accurate feedback from tissue analysis, it's important to sample leaves at the optimum time – and ship them using the proper protocol.



## Growing Hemp?

A&L Canada Laboratories also supports tissue analysis for Hemp production and can provide optimal nutrient ranges for the crop.

Hemp samples can be sent to the lab as you would for any other plant tissue sample.

## Best Timing in Corn

Plant tissue from corn can be taken at three growth stages:

1. Seedling stage less than 12" high. Sample whole plant from 1/2" above soil surface. Collect 15 plants.
2. Prior To Tasseling. Collect 15 leaves from the most recently unfurled leaf below the whorl.
3. Silking. Collect 15 leaves from below the ear.



Prior to tasseling



Silking

## Best Timing in Soybeans

1. Prior to Flowering
2. Early Bloom
3. Prior to Pod Set

In all cases, collect 25 of the most recently developed trifoliate leaf. Do not include the petiole.

Prior to flowering



Early Bloom



Prior to pod set

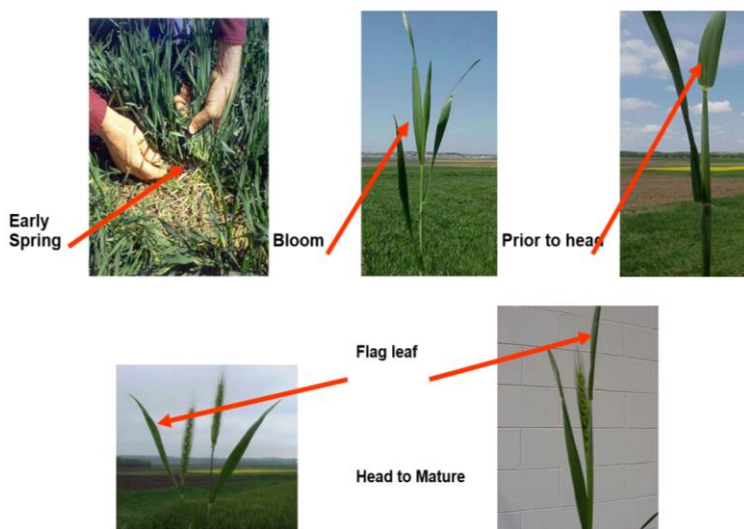




## Best Timing in Wheat

Plant tissue from wheat can be taken at four growth stages:

1. Early spring: Sample whole plant from 1/2" above soil surface. Collect 25 plants.
2. Bloom: Sample the most recently fully developed leaf with a collar. Collect 50 leaves.
3. Prior to head: Sample the most recently fully developed leaf with a collar. Collect 50 leaves.
4. Head to mature: Sample the flag leaf. Collect 50 leaves.



## Best Practice for Sending Samples

Once you've gathered the leaves at the correct staging, be sure you optimize your tissue analysis by shipping the samples properly. Here are some key points:

- Never send fresh samples in sealed plastic bags.
- Never freeze samples.
- Do not include roots with samples.
- If plant samples have soil, dust, fertilizer, or spray residues on them, they will need a light washing. Rinse the samples in a plastic colander with de-ionized or distilled water. Blot-dry the sample with a clean paper towel. Allow the sample to air-dry before you ship. Ship as soon as the samples are dry.
- Use an A&L tissue sample bag or perforated paper bag to allow air movement in transit.



## **Aim for Maximum Yield With A&L's Plant Monitoring Program**

Now that you understand how plant tissue analysis can identify nutrient challenges in-season, why not aim for maximum yield with A&L's Plant Monitoring Program (PMP)?

- Rather than one-off plant tissue tests, PMP can track your crop's nutrient status as it affects crop quality, yield – and ultimately, ROI – throughout the season.
- Getting started is easy. Select the fields and crops you want to monitor and enroll in PMP. There's no cost to enroll – fees only apply to the tests you order.

Track your most valuable crops through A&L's Plant Monitoring Program. For more information, go to: <https://www.alcanada.com/content/references/pdf-content?pid=Plant%20Monitoring%20Program>



## **Don't Let Disease Get the Jump on Your Crop**

Seen any signs of disease in your crops this summer? By the time you decide to spray, that disease may have already decimated your crop. You can get the jump on crop disease with A&L's Disease Diagnostic Services. A&L can test for bacteria, fungi, viruses, phytoplasmas – a total of more than 400 pathogens.

No matter what you grow, chances are that A&L's Disease Diagnostic Services has you covered. Our professional team and state-of-the-art technology cover row crops, horticultural crops including potatoes and forage crops such as alfalfa as well as most fruits and ornamentals.



Most tests can be completed by our lab within 3-5 business days of receiving your sample. Click <https://www.pdd.alcanada.com/a-and-l-labs-how-to-submit-a-sample> to find out how to submit your sample.

To speed up the process of submitting samples and to track your test history, download A&L's Smart Submit app available for iPhone, iPad or Android. Search for A&L Smart Submit at your preferred app store.

Need some insight on how to use A&L Smart Submit? We've prepared a video so you can learn the process step-by-step. Go to: [https://www.youtube.com/embed/P9Rw4x8y\\_QI](https://www.youtube.com/embed/P9Rw4x8y_QI)

Smart Submit can also be used to submit soil and feed samples for analysis.

### Consider Testing In-Field

Some growers have taken advantage of technology that allows them to diagnose crop disease in-field. A&L carries Agdia Pathogen ImmunoStrip test strips so you can analyze your crop's challenges on the fly for up to 50 pathogens. Check out that list of pathogens here:

<https://www.alcanada.com/content/products/agdia-store>.

A&L can ship test strips on the same day you order them. Order your test strips by calling 1-855-837-8347 or email: [alcanadalabs@alcanada.com](mailto:alcanadalabs@alcanada.com).



### Summer Soil Sampling

A&L Canada recognizes the tremendous challenges in planting the crop this season across various regions in North America – we are here to provide the best of service in challenging times.

The opportunity exists for early soil sampling in unplanted acres for optimal fertility plans for the fall.

If you are interested in site specific soil sampling or soil analysis, contact us at 1-(855)-837-8347



**ANNOUNCING**  
**A&L's Soil Health Symposium Series**

You won't want to miss A&L Canada's Soil Health Symposium Series, scheduled for three locations in 2019. The first event begins at 9:30 AM on July 16 at the Ag In Motion trade show in Saskatoon in the Ag In Motion Event Tent.

Speakers include:

- A&L's Research Lab Director Dr. Soledad Saldias will highlight what the company has learned from its ambitious soil health research program – and what it means for commercial crop production
- A&L Canada Labs Founder and CEO Greg Patterson will detail the company's new VitTellus™ Soil Health test and recommendation package, based on eight years of research and field trials. That research has shown a 90% correlation between certain soil health factors and crop yields.
- Soil health expert speaker (TBA)

Capacity to the Soil Health Symposium will be limited due to venue location at Ag In Motion – attendance is free so come early to secure your place!

If you're planning to join us in Saskatoon, why not stop by our exhibit as well? We'll be in booth 542 and we would love to meet you.

The next two seminars in the series are scheduled for Lansing, Michigan on September 25 and London, Ontario on September 27. **[Please note these dates for the Michigan and Ontario Soil Health Symposium Event have been changed from the original news post].**

In addition to A&L Canada Laboratories research staff, we are pleased to feature the following speaker

- Dr. James White, Professor of Plant Pathology at Rutgers University in New Jersey, will speak about plant endophytes (the bacteria and fungi within plant tissue) and their effect on crop nutrition and productivity.

Clients of A&L Canada will receive an invitation to these seminars in August. Keep watch for this invitation coming soon!



## Integrating A&L Data to Your Farm Data App

Many crop input, equipment and consulting companies have developed data management programs for use in your operation. It's important that these programs can "talk to" or seamlessly integrate their data with A&L soil and crop testing services. A&L data integration is currently up and running with these soil and crop data programs:



- 360 YieldView from Mapshots
- Trimble [AgriData]
- Field Analytics from EFC Systems
- Agvance from SSI
- AGVERDICT from Wilbur-Ellis
- Climate FieldView from Climate Corporation
- Compass from Affinity Management Ltd.
- Decisive Farming
- Echelon from Nutrien
- Farmers Edge
- NutriSolutions From Winfield United
- Proagrica [SST]
- Tronia Systems Ltd.

Don't see your app on this list? A&L is constantly updating its data integration capability to include new apps and vendors. Contact us at 1-855-837-8347 or email: [alcanadalabs@alcanada.com](mailto:alcanadalabs@alcanada.com) to ask about your specific data management system.