

A&L Canada Laboratories Inc.

# A STEP BEYOND TRADITIONAL LAB ANALYSIS

September 2021 NEWSLETTER



## IN THIS ISSUE

- 2021 SOIL MANAGEMENT WEBINAR: September 16<sup>th</sup>
- How Much Does a Crop Remove?
- Understanding Soil Tests
- VIDEO: Best Practices - Soil Sampling Technique
- TIPS: Soil Test this Fall to Start Right Next Spring
- INFOGRAPHIC: Understanding Your Soil Test Report
- Soil Health – A&L's 'One Stop Shop' Suite of Soil Services
- VitTellus Bio Test – Soil Health Package
- News / Upcoming Events / A&L Contact Information



## Dig Deeper into Your Soil Health

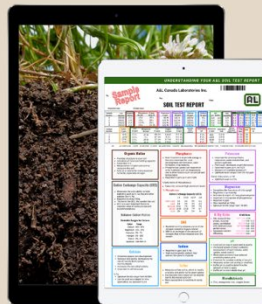


### 2021 Soil Management Webinar

THURSDAY, SEPT. 16, 2021  
1:30 PM – 3:00 PM EST

COMPLIMENTARY ZOOM WEBINAR

LEARN MORE: [www.alcanada.com/workshops](http://www.alcanada.com/workshops)



- **WHY SOIL TEST**  
Richard Robbins  
Agronomy Customer Service
- **SAMPLING TIPS**  
AJ Mickle, Agronomy & Precision Ag
- **HOW TO INTERPRET YOUR  
SOIL TEST REPORT**  
Chris Meier  
Agronomy & Business Dev. Manager
- **Q&A SESSION**  
A&L Team



## A&L 2021 Soil Management Webinar

A&L Canada Laboratories is holding a **Soil Management Webinar on September 16<sup>th</sup>, 2021, from 1:30 pm to 3:00 pm.**

Join the A&L Team for this **complimentary** 1 ½ hour virtual workshop to be held on Zoom.

### Presentations:

- **Why Soil Test** – Richard Robbins, Agronomy Customer Service Rep
- **Sampling Tips** – AJ Mickle, Agronomy and Precision Agriculture
- **How to Interpret Your Soil Test** – Chris Meier, Agronomy & Business Development Manager, Central and Eastern Ontario

At the end of the Presentations there will be a **Q&A Session with the A&L Team.**

Please register today at

[https://us06web.zoom.us/webinar/register/WN\\_3cf2y0KmSnS88YcG7B7LhQ](https://us06web.zoom.us/webinar/register/WN_3cf2y0KmSnS88YcG7B7LhQ)

## How Much Does a Crop Remove? *(from A&L FACT SHEET 543)*

We often get asked how we make a recommendation and what (actually) does a crop remove in the way of nutrients from the soil in a cropping year.

A soil test measures the available nutrients in the soil over the growing season and the recommendations are guidelines for crop input based on the levels of available nutrients found and yield goal. Soil Researchers and Plant Physiologists have extensively documented years of research in both the areas of optimum soil levels for plant growth and how much is removed by a crop in a production year.

A&L's system for making recommendations is based on worldwide soil calibration research information that has determined what is required to produce a unit of finished product. When A&L makes a recommendation, we use the latest information available to come up with a recommendation guide for the amount of plant food per acre that will be required to replace what the crop will remove. Plus, a build factor to bring the soil to optimum levels over time. By bringing the soil levels to optimum nutrient status the consistency of having a good production year after year will improve.

It is understood that the nutrient removed from a soil in production of any crop is in two areas. One area is in the grain or harvested portion of the crop that will be removed from the field and the other is the nutrients that



are contained in the straw and residue that is returned to the field. However, this second portion is not immediately available after it is returned to the soil as it is tied up in the organic portion of the crop residue and needs to decompose before it is returned and made available to the plant. In some cases, such as straw, additional nutrients may be required to break down the portion returned. A proper soil test program will monitor the release of these nutrients and the rate of decomposition will vary depending on a number of factors.

**Therefore, each year we need to account for all the nutrients that are required to grow the crop relying on a soil test to establish and track soils levels over time.**

Often, we hear people refer to the soils natural ability to replenish nutrients that are removed by crop production. This is the amount of nutrients contained in the soils that are not available to the plant. Each year a portion of these nutrients will become available as soils weather and every soil will have a base amount that its levels will never drop below due to its ability to replenish these resources. However, if a soil is at this base amount, it is at “ROCK BOTTOM” and will not provide nutrients to a growing crop consistently. Therefore, we need to establish the optimum levels for these soils and build the nutrient reserves to these levels.

## Understanding Soil Tests *(from A&L FACT SHEET 573)*

Soil tests are a valuable agronomic resource if they are fully used and properly understood.

Plant nutrition and plant to soil interactions are complex mechanism with a number of environmental and external conditions affecting the process. There are 17 elements involved in plant nutrition, three that are supplied naturally that we have little control over and 14 that are supplied by soil and or by fertilizer applications.

Therefore, it is important when interpreting soil analysis and designing a fertility program to keep balanced nutrition and proper placement of these nutrients in mind.

There are two basic philosophies in soil test interpretation used today and both have merit and solid scientific support to substantiate these philosophies:

1. **The SLAN Concept “Sufficient Levels of Available Nutrients”** originated or resulted from research done by Bray et al in 1944-45. This research monitored crop response to the addition of an element until crop response was zero or negative with additional increments of an element. This concept does not however attribute any effect of the level of availability of one element on another. It does however recognize that the addition of the most limiting element may enhance the efficiency of another element.
2. **The BCSR Concept “Basic Cation Saturation Ratio”** originated from research on soils where the cation saturation was varied and the yields and quality of the crops recorded. This work done by Bear and co-workers in 1945 identified optimum saturation levels of the basic cations for an ideal soil at 65% saturation of calcium, 10% saturation of magnesium and 5% saturation for potassium. Other work suggests that 10% saturation of magnesium may be marginal for alfalfa and other crops. Later work done by Bear in 1948 compared ratios in plant tissue with ratios in soils to determine optimum levels.

One major oversight in both approaches to understanding soil fertility and the ability for plants to take up nutrients was that they do not differentiate soil type. Sands and clays are different, and this should be taken into account when developing a crop nutritional program.

Fisher in 1975 introduced another parameter to express the fertility index whereby yield could be predicted from soil test values for both P and K. He substituted an equation of optimum K based on cation exchange capacity that predicts a deficient level of K in different soil types based on the cation exchange capacity (C.E.C.). This new philosophy integrates the SLAN approach with the BSCR concept. This approach uses the key strong attributes of both philosophies using cation exchange capacity to establish the differences in soil type and hence the different optimum levels of nutrients required for that soil. This is the trend used today by a number of respected soil testing laboratories and progressive individuals involved in plant nutrition and crop performance today.

At A&L Canada, we have adopted Fisher's approach using cation exchange capacity to establish soil type and from that information derive what the optimum level of the nutrient for that soil type. From the ppm reading for the various nutrients found in the soil, a rating is established based on their value before making a recommendation.

Other information such as percent saturation of the cations, are on the report so that the educated crop advisor can use this information to fine tune nutrient inputs and or placement based on their understanding of crop performance in that field or management system.

Any grower can grow a crop in a good year but it takes a strong understanding of nutrient availability and management techniques to develop crop input programs that can deliver consistent crop performance under conditions that are not always ideal. Percent saturation of K, Mg, Ca, H, and Na are merely an understanding of the predictability availability of the nutrients in less than ideal conditions.

In order to use a soil test adequately the crop advisor or producer must first of all understand what these relationships are and be able to make judgment calls on placement and amounts of nutrients to ensure each nutrients availability.

To begin with in using an A&L soil test to make a recommendation one needs to understand what the optimum nutrient level in each soil type is and develop a program to address any deficiencies.

A good fertility program begins with a nutrient balance sheet defining how much of each nutrient will be removed by the harvest per unit of production. This amount should always be returned to maintain strong soil health unless soils are in excess and the goal was to draw the nutrient down.

If a clear understanding of the fields potential has been determined through historical records, based on management zones, a target optimum level of a nutrient for that production system can be established. Once this is clear a producer can make the decision on how much luxury application that they can afford to build these soils to their optimum.

Soil build is an investment in soil health and future crop performance. When we apply N to a crop 50-75% of what we apply that season will be taken up by that crop and this response is easy to see. When we broadcast P, K, Mg, Ca in most soil types only about 15% of what we apply is taken up by that crop in that season, and this response is not often obvious. Most of the P and K a crop takes up, first of all, is supplied by the starter mix or band in early growth, and later to finish the crop it is supplied by soil reserves. With these nutrients therefore we must not forget that we feed the soil and the soil in turn feeds the plant.

In many cases, as mentioned already, it may not be economically practical to achieve optimum levels and we may have to rely more on placement techniques to achieve crop performance and overcome short comings of the soil type. However, all fertility programs should include some build as crops do depend on these soil reserves to finish the crop once the roots move out beyond the band.

## SOIL TEST THIS FALL TO START RIGHT NEXT SPRING

Chances are you're already thinking about harvest whether it be corn, soybean, wheat or canola. Does that mean you're all done for the season? A&L recommends post-harvest soil testing as the ideal way to set yourself up for success next year. Without a current soil test, you'll just be guessing what shape your soil is in for next year's crop.

You might also conclude that since you're satisfied with this year's crop yield and quality, there's no reason to test. But even a good stand could be masking key nutrient deficiencies in your soil.

### TIPS TO KEEP IN MIND WHEN YOU'RE SAMPLING SOIL THIS FALL

---

Be sure you have the proper equipment to gather soil for testing:

- A hand probe or hydraulic probe can be used under most conditions
- A small wooden rod may be helpful in removing the soil core from the tube
- The soil auger is especially useful when sampling frozen ground or heavily compacted soil that a soil tube can't penetrate

If you're collecting your samples in a pail, use a plastic bucket to avoid contamination from trace metals. For example, zinc from a galvanized pail can transfer to your soil sample & render an inaccurate reading.

Once you have your samples, mix them together in a clean plastic container & take enough subsample to fill the sample bag provided by A&L. There is no need to process the sample further before shipment, A&L will dry, grind & sieve your sample. Send a separate bagged sample if you order a nematode test.

To improve your prospects for success, consider an intensive soil sampling program such as site-specific soil sampling or a soil audit. Site-specific sampling will clearly show the variability within fields, data that can be used to address those field differences for optimal input applications.

To get a representative soil sample in reduced-till or no-till fields, soil samples can be taken from two depths:

1. Two (2) inches deep for fertilizer placement
2. Another up to six (6) inches deep for general fertilizer recommendations

In these min-till fields you will generally find higher fertility, higher organic matter content, and lower pH, all of which can affect your fertility and herbicide programs.

Once you have the results of your fall soil test, you can start to plan your fertility program that considers balanced nutrition, source, timing and proper placement of crop nutrients.

For more on A&L's soil testing and analysis, go to:

[https://www.alcanada.com/pdf/Tech\\_Bulletins/Soil/Testing/573-Understanding\\_Soil\\_Tests.pdf](https://www.alcanada.com/pdf/Tech_Bulletins/Soil/Testing/573-Understanding_Soil_Tests.pdf)

Soil Analysis Reference Guide [https://www.alcanada.com/pdf/Soil\\_Analysis\\_Guide.pdf](https://www.alcanada.com/pdf/Soil_Analysis_Guide.pdf)

UNDERSTANDING YOUR A&L SOIL TEST REPORT

Sample Report

A&L Canada Laboratories Inc.



To:

For:

Field:



SOIL TEST REPORT

Reported Date: Printed Date:

| Sample Number | Lab Number | Organic Matter | Phosphorus - P ppm |         | Potassium K ppm | Magnesium Mg ppm | Calcium Ca ppm | Sodium Na ppm | pH Buffer |      | CEC meq/100g | Percent Base Saturations |      |      |      |     |
|---------------|------------|----------------|--------------------|---------|-----------------|------------------|----------------|---------------|-----------|------|--------------|--------------------------|------|------|------|-----|
|               |            |                | Bicarb             | Bray-P1 |                 |                  |                |               | % K       | % Mg |              | % Ca                     | % H  | % Na |      |     |
| 1             | 29530      | 2.1            | 15 L               | 25 L    | 86 M            | 161 H            | 830 M          | 9 L           | 6.8       | 6.9  | 6.9          | 3.2                      | 19.4 | 59.9 | 17.1 | 0.6 |
| 2             | 29531      | 2.4            | 15 L               | 38 L    | 121 M           | 110 M            | 550VL          | 7 L           | 6.4       | 6.8  | 6.4          | 4.9                      | 14.3 | 43.0 | 37.3 | 0.5 |
| 3             | 29532      | 2.3            | 13 VL              | 25 L    | 153 M           | 153 H            | 930 M          | 10 L          | 6.8       | 6.9  | 7.5          | 5.2                      | 16.9 | 61.6 | 15.7 | 0.6 |
| 4             | 29533      | 2.2            | 15 L               | 21 VL   | 122 M           | 147 H            | 1130 M         | 10 L          | 7.2       |      | 7.6          | 4.1                      | 16.2 | 74.6 | 4.5  | 0.6 |

| Sample Number | Sulfur S ppm | Zinc Zn ppm | Manganese Mn ppm | Iron Fe ppm | Copper Cu ppm | Boron B ppm | Soluble Salts ms/cm | Saturation %P | Aluminum Al ppm | Saturation %Al | Nitrate Nitrogen NO3-N ppm | K/Mg Ratio | ENR | Field ID |
|---------------|--------------|-------------|------------------|-------------|---------------|-------------|---------------------|---------------|-----------------|----------------|----------------------------|------------|-----|----------|
|               |              |             |                  |             |               |             |                     |               |                 |                |                            |            |     |          |
| 2             | 13 M         | 2.2 L       | 7 L              | 57 VH       | 0.3 L         | 0.1 VL      |                     | 4 VL          | 1383            | 1.9 G          |                            | 0.34       | 36  |          |
| 3             | 10 VL        | 2.3 L       | 20 M             | 77 VH       | 0.7 M         | 0.1 VL      |                     | 3 VL          | 1019            | 0.4 G          |                            | 0.31       | 35  |          |
| 4             | 9 VL         | 3.5 L       | 42 H             | 72 VH       | 0.9 M         | 0.1 VL      |                     | 4 VL          | 730             | 0.1 G          |                            | 0.25       | 34  |          |

OE: VL=VERY LOW L=LOW M=MEDIUM H=HIGH VH=VERY HIGH G=GOOD MA=MARGINAL MT=MODERATE PHYTO-TOXIC T=PHYTO-TOXIC ST=SEVERE PHYTO-TOXIC

### Organic Matter

- Provides structure to your soil
- Indication of moisture holding capacity
- Presented in %
- Measurement of plant and animal residue in the soil
- Acts as a reserve for many essential nutrients, especially nitrogen

### Cation Exchange Capacity (CEC)

- Measures the soils ability to hold nutrients such as K, Ca, Mg and other cations like H, Na
- Reported as meq/100g
- The lower the CEC, the sandier the soil
- CEC is a very important factor to consider when it comes to nutrient recommendations

### Balance Cation Ratios

Desirable Ranges for Cations

| Cation    | Range        |
|-----------|--------------|
| Calcium   | 65% - 80%    |
| Magnesium | 10% - 20%    |
| Potassium | 3% - 7%      |
| Hydrogen  | 5% - 15%     |
| Sodium    | 0% - 1%      |
| Aluminum  | Less than 1% |

### Calcium

- Enhances proper root development
- Reduces soil acidity, decreasing the risk of toxicity from certain micronutrients
- Increases the microbial activity
- Important in cell structure

% Ca

- Optimum levels range from 60-80%
- Can be used as a target for lime application, as opposed to pH

### Phosphorus

- Main function is to provide energy to the crop important for: root development cell formation, seed formation, crop maturity
- Phosphorous uptake can depend on other nutrients such as magnesium, zinc & other factors such as soil pH and temperature
- Reported in ppm as P, not P2O5

% Saturation of Phosphorous

- Takes into account high aluminum levels

**% Phosphorus**

|          | < 9   | 10-13 | 14-17 | >18 |
|----------|-------|-------|-------|-----|
| VERY LOW | 0-4   | 0-3   | 0-2   | 0-1 |
| LOW      | 5-9   | 4-6   | 3-4   | 2-3 |
| MEDIUM   | 9-12  | 7-9   | 5-6   | 4-5 |
| GOOD     | 12-15 | 10-12 | 7-9   | 6-7 |
| HIGH     | 16+   | 13+   | 10+   | 8+  |

**Cation Exchange Capacity (CEC)**

### ENR

- Bacterial activity releases some of the nitrogen stored in Organic Matter
- ENR is an estimate of the amount of nitrogen that will be released over the season

### Sodium

- Reported in ppm and % Na
- High exchangeable sodium may prevent the growth of plants

### Sulfur

- Measure sulfate sulfur, which is readily available and preferred for plant uptake
- Has become more important to monitor due to decreased acid rain
- More susceptible to leaching in sandy soil

### Potassium

- Important for photosynthesis, respiration, water metabolism, and protein synthesis
- Plant avail. decreases as pH decreases
- Reported in ppm as K, not K2O
- Measure of available potassium
- Optimum level ranges from 90-150 ppm

Cation Saturation, or %K

- Optimum level is 2-5%

### Magnesium

- Completes the formation of chlorophyll
- Regulates crop maturity
- Activator & cmpt. of many plant enzymes
- Important in the uptake of phosphorous
- Reported in ppm
- Also reported as %Mg
- Optimum levels range from 10-20%

### K/Mg Ratio

A&L research has shown, in some cases, correlation with yield and crop performance

- Increased nutrient efficiency

| K/Mg Ratio | Range       |
|------------|-------------|
| VERY LOW   | <0.08       |
| LOW        | 0.08 - 0.15 |
| MEDIUM     | 0.15 - 0.25 |
| OPTIMUM    | 0.25 - 0.35 |
| HIGH       | 0.35 - 0.50 |
| VERY HIGH  | 0.50 - 0.80 |
| EXCESSIVE  | 0.80 +      |

### pH

- Good soil pH key to good yield & quality
- Increased uptake of plant nutrients, development of root nodules, water uptake, weed control
- Most plant nutrients have reduced availability below pH 6
- Potential for nutrient toxicity at low pH
- Measures active soil acidity or alkalinity
- Buffer pH is used to determine the amount of lime to apply
- Buffer pH is more stable than pH

### MicroNutrients

- Zinc, manganese, iron, copper, boron

# A&L's 'One-Stop Shop' Suite of Soil Services

For a producer or advisor to know the true health of their soils, understanding its bioactivity and overall capacity to help a given crop succeed should be their top priority. At A&L, a one-stop shop for all your agricultural analytical testing needs, understanding your results and turning information into actionable solutions to help improve your crop is our main objective.

## A&L SOIL HEALTH SUITE

| Soil Tests                          | Used for  | Package Components   | Code  |
|-------------------------------------|---|--|---|
| Standard Soil Test + Micronutrients | Understanding Soil Nutrients  | • See Table Below  | • See Table Below   |
| VitTellus® Soil Health              | Soil Health Index for Decisions   | <ul style="list-style-type: none"> <li>• VitTellus® Soil Health Report + Index</li> <li>• Solvita CO2 Test Results</li> <li>• Reactive Carbon</li> <li>• Standard Soil Fertility Test Results</li> <li>• A&amp;L Crop Recommendations</li> </ul>   | <b>SHTEST1</b><br><b>OPTION:</b><br><b>SHTEST2</b> - VitTellus Soil Health Test + Water Extracted Carbon & Nitrogen<br>• NRCS Soil Health Score |
| VitTellus Bio™                      | Quantifies the Beneficial Soil Microbes   | <ul style="list-style-type: none"> <li>• Complete VitTellus Bio™ Report</li> </ul> <b>PLUS:</b> <ul style="list-style-type: none"> <li>• VitTellus® Soil Health Report + Index</li> <li>• Solvita CO2 Test Results</li> <li>• Reactive Carbon</li> <li>• Standard Soil Fertility Test Results</li> <li>• A&amp;L Crop Recommendations</li> </ul> | <b>SHTEST3</b>  |
| Soil Organic Carbon (SOC)           | Measure for Soil Organic Matter   | • By Dry Combustion  | <b>GTCS411</b>  |
| Bulk Density                        | Indicator of Soil Compaction  |  | <b>SBD</b>  |
| Particle Size Analysis/Texture      | Indicator of Soil water movement, Soil erosion and Soil solute movement                   |  | <b>SHTEXT</b>   |
| Aggregate Stability                 | Measures resistance of soil aggregates to breakdown or degradation                        |  | <b>SHVAST</b>   |
| C:N Ratio                           | Indicator of Residue decomposition and Nitrogen cycling; important for microbial activity |  | <b>SHSCN</b>  |

| A&L Soil Tests               | Micronutrients |                             |           |           |         |                   |         |          |                      |                   |               |             |           |         | Add. |          |      |           |        |       |      |        |          |
|------------------------------|----------------|-----------------------------|-----------|-----------|---------|-------------------|---------|----------|----------------------|-------------------|---------------|-------------|-----------|---------|------|----------|------|-----------|--------|-------|------|--------|----------|
|                              | Organic Matter | Phosphorous (Sodium Bicarb) | Potassium | Magnesium | Calcium | Sodium (Ammonium) | Soil pH | Aluminum | Saturation of Cation | Calculated C.E.C. | Saturation %P | %K/Mg Ratio | Buffer pH | Nitrate |      | Hydrogen | Zinc | Manganese | Sulfur | Boron | Iron | Copper | Chloride |
| • S1B                        | •              | •                           | •         | •         | •       | •                 | •       | •        | •                    | •                 | •             | •           | •         | •       | •    | •        | •    | •         | •      | •     | •    | •      | •        |
| • S2                         | •              | •                           | •         | •         | •       | •                 | •       | •        | •                    | •                 | •             | •           | •         | •       | •    | •        | •    | •         | •      | •     | •    | •      | •        |
| • S3                         | •              | •                           | •         | •         | •       | •                 | •       | •        | •                    | •                 | •             | •           | •         | •       | •    | •        | •    | •         | •      | •     | •    | •      | •        |
| • S4                         | •              | •                           | •         | •         | •       | •                 | •       | •        | •                    | •                 | •             | •           | •         | •       | •    | •        | •    | •         | •      | •     | •    | •      | •        |
| • S5                         | •              | •                           | •         | •         | •       | •                 | •       | •        | •                    | •                 | •             | •           | •         | •       | •    | •        | •    | •         | •      | •     | •    | •      | •        |
| • S6                         | •              | •                           | •         | •         | •       | •                 | •       | •        | •                    | •                 | •             | •           | •         | •       | •    | •        | •    | •         | •      | •     | •    | •      | •        |
| • S7                         | •              | •                           | •         | •         | •       | •                 | •       | •        | •                    | •                 | •             | •           | •         | •       | •    | •        | •    | •         | •      | •     | •    | •      | •        |
| • SW1B2                      | •              | •                           | •         | •         | •       | •                 | •       | •        | •                    | •                 | •             | •           | •         | •       | •    | •        | •    | •         | •      | •     | •    | •      | •        |
| • SW                         | •              | •                           | •         | •         | •       | •                 | •       | •        | •                    | •                 | •             | •           | •         | •       | •    | •        | •    | •         | •      | •     | •    | •      | •        |
| • SW1                        | •              | •                           | •         | •         | •       | •                 | •       | •        | •                    | •                 | •             | •           | •         | •       | •    | •        | •    | •         | •      | •     | •    | •      | •        |
| • SWB - Sub-Surface Analysis | •              | •                           | •         | •         | •       | •                 | •       | •        | •                    | •                 | •             | •           | •         | •       | •    | •        | •    | •         | •      | •     | •    | •      | •        |

## TWO TESTS TOGETHER IN ONE PACKAGE: VITTELLUS BIO<sup>SM</sup> SOIL HEALTH PACKAGE

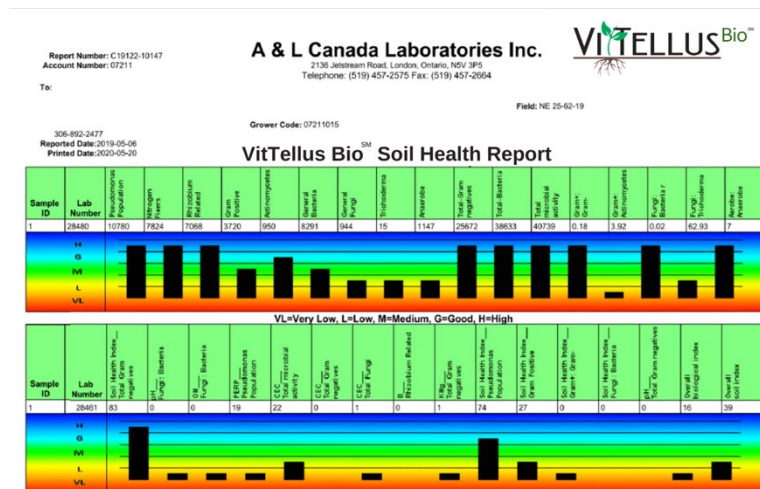


The VitTellus Bio<sup>SM</sup> Soil Health Package is an analytical package providing the VitTellus<sup>®</sup> Soil Health Test PLUS the new VitTellus Bio<sup>SM</sup> microbial test which quantifies the levels of functional soil microbes associated with improved soil health and crop yield. VitTellus Bio<sup>SM</sup> utilizes selective carbon sources to measure the concentration of specific functional microbial groups within a soil sample which research has shown have known beneficial functionality, ie. Nitrogen fixation. Optimal ranges of these functional microbes are provided and, along with the soil chemistry metrics, will allow you to implement farm management strategies to increase favorable soil microbe populations.

Information on the VitTellus<sup>®</sup> Soil Health Test & VitTellus Bio<sup>SM</sup>, can be found at [www.vittellus.com](http://www.vittellus.com)

### The VitTellus Bio<sup>SM</sup> Soil Health Package Components:

- A complete VitTellus<sup>®</sup> Soil Health Test and Report
- A complete VitTellus Bio<sup>SM</sup> Soil Health Report with analysis results and optimal ranges
- Technical support
- Online portal for access to reports
- Live expert customer support



*VitTellus Bio<sup>SM</sup> Soil Health is the next logical step in understanding soil health and the biological drivers of productivity. This analysis allows clients to understand their current soil microbial populations and take concrete actions to cultivate microbes which support healthier soils, stronger plants and greater returns for the farmer, and society.*

*This is a worthwhile, long view endeavor, we strongly encourage farmers to truly get to know their soils for their longstanding success.*

*We are proud of all the research and development work coming out of A&L Canada Laboratories and are committed and passionate about sharing our knowledge for the advancement of the industry.*



**Greg Patterson, CCA**  
Founder and CEO  
A&L Canada Laboratories Inc.



## SOIL TEST THIS FALL

The importance of soil testing is understanding what nutrient levels are in your field to start, and where you want to get to so you can optimize crop production and returns on your farm.

The research that we have done at A&L Biologicals ([www.albiologicals.com](http://www.albiologicals.com)) demonstrated that our fertility balance and our soil nutrient levels is very important to overall soil health. Without adequate balance of nutrition, we can't get desired microbial activity.

### Get out & get your soil test done this Fall!

Need help? Deveron offers soil testing collection services – check with your ag retailer or agronomist or contact our office!

View Deveron's On-Demand Soil Sampling Services Newsletter: <https://mailchi.mp/35b4f2b90307/fall-soil-sampling-5311762>

#### Deveron Soil Collection Services:

- Service available across most of Canada and the US Midwest
- Rapid turnaround times from collection to analysis
- Shipping provided from collection locations directly to A&L Labs
- A&L Certified Collection Specialists



Visit the A&L ONLINE customer information website for more SOIL information <https://www.alonline.alcanada.com/soil>

#### Soil Sampling Resources

- [A&L Soil Sampling Guide](#)
- [A&L Soil Sampling FAQs](#)
- [Precision Agriculture Update: Bulk, Zone, Site Specific Soil Sampling \(April 2020 Newsletter\)](#)

#### Soil Tests Available from A&L Canada Labs

- [A&L Soil Test Packages](#)
- [Western Canadian Soil Test Packages](#)
- [For SOIL HEALTH Tests - click here](#)

#### How do I read my report?

- [Explanation of a Soil Analysis Report](#)
- [Understanding Your A&L Soil Test Report \(Infographic\)](#)

#### How can I learn more?

- [View A&L Soil Test Packages Available](#)
- Contact your Ag Retailer or Crop Consultant
- [Contact the A&L Customer Service Team](#)
- Office: Call us toll free 1-855-837-8347, or email [alcanadalabs@alcanada.com](mailto:alcanadalabs@alcanada.com)

## A&L NEWS

Click on the article title to view on the A&L website

### [Solvita® Soil Tests confirmed through long-term field research as valuable testing tools for evaluating Soil Health](#)

- Long term study confirms usefulness of Solvita® as valuable tool to predict Soil Health
- Research shows Solvita® tests enabled a high level of certainty in "useful" cropping comparisons and correlated with soil carbon levels and soil total-nitrogen



### [2021 Soil Management Webinar: Dig Deeper into Your Soil Health](#)

A&L Canada Laboratories is holding a 2021 Soil Management Webinar on September 16<sup>th</sup>, 2021, from 1:30 pm to 3:00 pm.

### 2021 Soil Management Webinar

THURSDAY, SEPT. 16, 2021  
1:30 PM – 3:00 PM EST

COMPLIMENTARY ZOOM WEBINAR

LEARN MORE: [www.alcanada.com/workshops](http://www.alcanada.com/workshops)



Please register today at [https://us06web.zoom.us/webinar/register/WN\\_3cf2y0KmSnS88YcG7B7LhQ](https://us06web.zoom.us/webinar/register/WN_3cf2y0KmSnS88YcG7B7LhQ)

### [Kelsie Meyer Joins A&L Canada Laboratories as US Agronomy & Business Development Representative](#)



**Kelsie Meyer**  
Agronomy & Business  
Development  
Representative,  
Kansas City, MO, USA  
A&L Canada Laboratories

A&L Canada Laboratories Inc., an innovative leader in agricultural services and technologies, is pleased to announce Kelsie Meyer will represent the company as Agronomy & Business Development Representative for US based clients effective August 30, 2021.

Kelsie is a graduate of the University of Nebraska–Lincoln with a bachelor’s degree in Agronomy. Kelsie brings great experience from past roles with companies in both the agronomy and laboratory services industries. Kelsie’s agronomy background and passion for agriculture makes her well suited to support the clients of A&L Canada Laboratories. From her base in Kansas City, Missouri, she will be providing service to clients across the United States.

# We are here to help - At A&L, our commitment is to drive positive outcomes!



## A&L Canada Laboratories Inc.

2136 Jetstream Road,  
London, Ontario, CANADA N5V 3P5

Tel: (519)457-2575 • Toll Free: 1-(855)-837-8347

Fax: (519)457-2664

Email: [alcanadalabs@alcanada.com](mailto:alcanadalabs@alcanada.com)

Company Website: [www.alcanada.com](http://www.alcanada.com)

**AGRONOMY & BUSINESS DEVELOPMENT REPRESENTATIVES**

**NORTHERN ALBERTA + NORTHERN B.C.**  
Norm Dueck  
[ndueck@alcanada.com](mailto:ndueck@alcanada.com)

**BRITISH COLUMBIA + CENTRAL ALBERTA**  
Ken Galloway  
[kgalloway@alcanada.com](mailto:kgalloway@alcanada.com)

**SOUTH ALBERTA + NORTH CENTRAL SASK**  
Noah Bertholet  
[nbertholet@alcanada.com](mailto:nbertholet@alcanada.com)

**SOUTH SASK+MANITOBA**  
Jill Debenham  
[jdebenham@alcanada.com](mailto:jdebenham@alcanada.com)

**QUEBEC**  
Katherine Murray  
[kmurray@alcanada.com](mailto:kmurray@alcanada.com)

**MARITIMES**  
Holland Cahill  
[hcahill@alcanada.com](mailto:hcahill@alcanada.com)

**SW ONTARIO**  
Mike Folkard  
[mfolkard@alcanada.com](mailto:mfolkard@alcanada.com)

**UNITED STATES**  
Kelsie Meyer  
[kmeyer@alcanada.com](mailto:kmeyer@alcanada.com)

**CLIENT SUPPORT**  
Andrew Mickle  
[andrew@alcanada.com](mailto:andrew@alcanada.com)

**SoilOil**  
**OUTDOOR GROW SUPPORT CANNABIS+HEMP**  
Daryl Patterson  
[dpatterson@alcanada.com](mailto:dpatterson@alcanada.com)

**CANNABIS SUPPORT**  
Brian Coutts  
[bcoutts@alcanada.com](mailto:bcoutts@alcanada.com)

**TerraSiteRx**  
**PRECISION AG**

**MANAGER CLIENT SERVICES**  
Julie Mollard  
[jmollard@alcanada.com](mailto:jmollard@alcanada.com)

**MAIN OFFICE & LABS**  
**A&L Canada Laboratories**  
2136 Jetstream Road  
London, Ontario, Canada N5V 3P5  
[alcanadalabs@alcanada.com](mailto:alcanadalabs@alcanada.com)  
519-457-2575  
Toll Free 1-855-837-8347  
[www.alcanada.com](http://www.alcanada.com)

## A&L Canada Labs Social Media

Twitter @ALCanadaLabs: <https://www.twitter.com/alcanadalabs>

Instagram @ALCanadaLabs: <https://www.instagram.com/alcanadalabs>

Facebook: <https://www.facebook.com/alcanadalabs/>

LinkedIn: <https://www.linkedin.com/company/a-l-canada-laboratories>

YouTube: <https://www.youtube.com/user/alcanadalabs>