

NUTRISCAN™

Real-Time Soil Diagnostics



Soil Testing has Never Been This Easy!

Knowing what nutrients are in your soil is fundamental in determining what to invest in, to drive productivity. Today, for a number of reasons, less than 34% of the fields are tested annually for Nitrogen and less than 25% of the fields have a complete (macro and micros) analysis performed on them.

To evolve soil testing to support increased crop production, NutriScan is a game changing diagnostic technology that gives you access to real time, in-field monitoring of your soils nutrient status. This hand-held tool gives you the complete assessment of the nutrient status of your soil in a matter of minutes.

Key Benefits:

- **Timely** - Real-time, in-field results in 3 minutes
- **Complete** - Measures soil properties, macronutrients and micronutrients.
- **Simple** - Easy-to-use, handheld tool
- **Proven** - Only sensor technology (Near-Infrared) calibrated for North American Soils
- **Economical** - Fixed cost solution with an annual subscription

Soil Parameters Measured

Soil Characteristics	Macronutrients	Micronutrients	Base Saturations
Organic Matter Organic Carbon pH CEC EC	Nitrogen Phosphorus Potassium Sulphur Calcium Magnesium	Boron Zinc Manganese Copper Iron Aluminum Sodium	K Mg Ca K/Mg

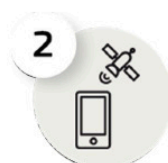
How it Works

Data Recommendations to your phone in just 5 minutes



SCAN

Scan your Soil



CONNECT

Upload data via the app



ANALYZE

Let the database do the magic

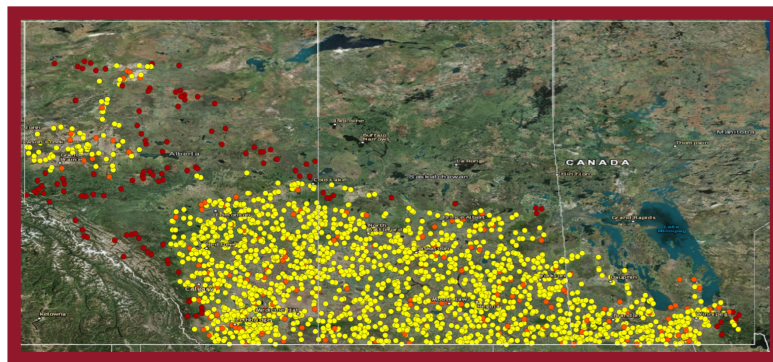


ACT

Receive your report

Market Proven - Provides Accurate Diagnostics

- NutriScan fertility recommendations are based upon prediction models that have been created through an extensive calibration process using more than 19,000 samples world wide.
- Over 1,400 North America soil samples were collected and run through the Gold Standard Lab (GSL) in the Netherlands to calibrate the technology for North America.
- With the introduction of Machine Learning, prediction modelling is constantly evolving to provide even greater accuracy.
- NutriScan is the only real-time sensor technology with WEPAL certification (Wageningen Evaluating Programmes for Analytical Laboratories).



Western Canada map showcasing the geographically dispersed soil samples collected in Alberta, Manitoba, Saskatchewan, and British Columbia utilized to calibrate the NutriScan Unit (2019-2020)

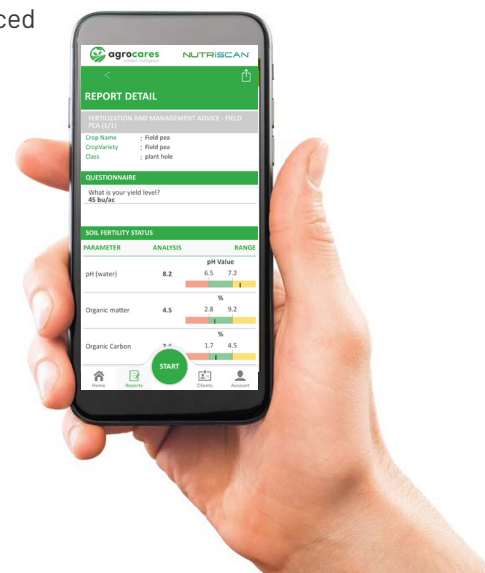
NutriScan Reporting

Reports summarizing the soil fertility status and fertility recommendation can be viewed on the NutriScan app using a compatible smart phone, or online through the NutriScan portal as a PDF or downloaded into Excel.

Fertilization and Management Advice		NUTRISCAN					
John Doe							
Canada		User: Soil services ATP (4317889541)					
General Information							
Sample Number : 434106	Date : 2022-06-02	Field Size : 1 acre					
Field Name : 12	Crop Name : Rapeseed (Canola)	Field Description : update!					
Soil Fertility Status							
Parameter	Unit	Analysis Result	Range Low	Range High	Low	Adequate	High
pH (water)	pH Value	8.1	6.3	7.9			■
Organic matter	%	6.2	3	9		■	
Organic Carbon	%	3.6	1.7	4.5		■	
Cation Exchange Capacity	meq/100g	26	13	29		■	
EC	mS/cm	0.2	-	-			
Nitrate	ppm	43	-	-			
Nitrate	lb/acre	86	-	-			
Potentially Mineralizable Nitrogen	ppm	116	-	-			
Phosphorus (Olsen)	ppm	28	26	48		■	
Phosphorus (Bray-1)	ppm	56	58	88	■		
Potassium (-exch.)	ppm	470	207	414			■
Total Sulphur	ppm	175	300	500	■		
Calcium (-exch.)	ppm	4803	2235	3200			■
Magnesium (-exch.)	ppm	879	213	320			■
% K of CEC	%	3.7	3	5.9		■	
% Mg of CEC	%	22.3	9	20			■
% Ca of CEC	%	74	65	85		■	
K/Mg	-	0.17	0.32	0.41	■		
Zinc (1M HCL)	ppm	4.5	5	11	■		
Manganese (1M HCL)	ppm	165.5	34	69			■
Copper (1M HCL)	ppm	2.7	1.4	2.6			■
Boron (hot water)	ppm	1.2	0.8	1.7		■	
Total Iron	g/kg	22	4	8.9			■
Total Aluminium	g/kg	38	94	115	■		
Total Sodium	g/kg	7	-	-			

Each report includes:

- Soil fertility status for soil characteristics, macro and micronutrients
- Organic carbon which can be used to measure carbon sequestration
- Fertility recommendations for target yield
- Summary of the field and crop details
- All soil samples are GPS referenced
- All data is securely stored and accessible through a web based portal



At ATP, we believe a proactive, science-based approach to restore the balance between plant and soil health is the single most effective way to deliver the genetic potential of the crop. We challenge the status quo by utilizing agtech to monitor and drive productivity.

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