BASIC VS AGRISEA SOIL TESTING

Prices and Landscape

AgriSea
NEW ZEALAND

Basic Soil Test with Sulphur Profile

Cost = $92 excl GST

What it does:
Measures the “bare minimum” — pH, the major cations (Ca, Mg, K, Na), CEC, Total Base Saturation, Olsen P, and Sulphur Profile (sulphate sulphur and extractable organic sulphur).

Mindset behind it:
It assumes that soil is just a bucket to hold fertiliser. The focus is on soluble nutrients, particularly phosphorus (Olsen P), sulphur (Sulphate S) and quick chemical fixes.

What it misses:

- Doesn’t measure the biological engine of the soil — organic matter, microbial activity, or carbon.
- Ignores total nutrient reserves and most micronutrients (e.g., zinc, copper, manganese, boron), which are critical for plant and animal health.

Bottom line:
It gives farmers a snapshot of what’s soluble right now, but not what’s locked up, nor how a functioning soil biome could make those reserves available. This can lead to overuse of synthetic fertiliser and nutrient leaching.

AgriSea Essentials Soil Analysis

Cost = $224.10 excl GST
includes AgriSea 10% off special

What it adds:

- Resin P & Anion Storage Capacity (ASC): Shows both available phosphorus and how well your soil can retain it — crucial for reducing leaching and runoff.
- Hot Water Extractable Carbon: A measure of the biologically active fraction of soil carbon which is a good indication of soil biological health.
- Boron: A key nutrient for movement and utilisation of calcium in plants and also the connection between plants and the soil biome.
- Organic Matter, Total Carbon, C:N Ratio: Indicators of long-term fertility and resilience.
- Potentially Mineralisable Nitrogen (PMN): How much N your soil biome can cycle naturally, reducing the need for synthetic N inputs.

When to do it:
The AgriSea Essentials Soil Analysis is recommended for farmers who have measured their Total P and S within the past 5 years and are wanting to make decisions based on more than just the ‘chemical composition’ of the soil.

Why it matters for today’s farmers:

- Shifts focus from “dumping nutrients in” to understanding nutrient cycling.
- Carbon, organic matter, and PMN tell us how alive your soil is — the key to resilient, cost-effective farming.
- Starts to identify hidden deficiencies and inefficiencies that basic testing ignores.

AgriSea Full Spectrum Soil Analysis
(Gold Standard)

Cost = $317.70 excl GST
includes Full Mehlich 3 Trace Elements, Boron and AgriSea 10% off special

What it adds:
Everything in Essentials, PLUS:

- Reserve Potassium (TBK), Total Phosphorus & Total Sulphur: The nutrient reserves that basic tests ignore. A healthy soil biome can unlock these, meaning you often have more fertility than you've been told.
- Full Mehlich 3 Trace Elements: A complete micronutrient suite Micronutrients are tiny in quantity but massive in impact — driving enzyme function, plant immunity, and animal health. (Not recommended if pasture samples are being taken)
- Aluminium: Where soil pH is less than 6, Al in the soil becomes more soluble and can restrict root growth, thus reducing water access, gas exchange and nutrient uptake by plants.

When to do it:
The AgriSea Full Spectrum Analysis is recommended for any operation that has not measured their Total P and S in the past 5 years or for farmers wanting to baseline their operation before making any adjustments.

Why it matters for today's farming:

- Provides the full picture of soil fertility and functionality.
- By understanding both what's soluble now and what's locked away, you can farm in partnership with your soil biome instead of chasing fertiliser trucks.
- Reduces reliance on synthetic inputs by highlighting how much your soil can supply naturally if the biome is supported (e.g., with AgriSea biostimulants).

Why the AgriSea Tests are Better.

Biological focus: They don't just measure chemistry; they measure the life and resilience in your soil.

Nutrient cycling: Instead of assuming fertiliser is the answer, they show how much your soil can provide when the biome is functioning properly and not suppressed by heavy chemical inputs.

Micronutrient health: Trace elements are often the missing link in pasture and animal performance. Conventional tests miss them — AgriSea doesn't.

Long-term thinking: They allow you to build soil fertility naturally, regenerate carbon, and reduce environmental losses.

Saves you money: by getting the full picture you can make more informed decisions when it comes to your nutrient management, often reducing wastage and improving efficiencies.

We dig deeper: our tests are done at 150mm, not 75mm. Along with making sure the right tests are performed, we have to make sure the right soil is tested. By taking 150mm samples, we ensure that a more accurate representation of the active root zone is gathered.

Analysis	Description	Basic Soil Test with Sulphur Profile	AgriSea Essentials Soil Analysis	AgriSea Full Spectrum Soil Analysis
pH	The measure of soil acidity or alkalinity, which is critical because it controls the availability of all other nutrients to plants.	✓	✓	✓
Cations (Ca, Mg, K and Na)	These are essential, positively charged nutrients held by the soil. Their balance and availability are fundamental for plant growth and soil structure.	✓	✓	✓
Cation Exchange Capacity (CEC)	The soil's ability to hold onto positively charged nutrients. A high CEC is a key indicator of fertile soil that can retain more nutrients and water.	✓	✓	✓
Total Base Saturation	This shows the percentage of the soil's capacity that is filled with the basic, plant-available cations. It provides insight into the overall balance of your soil's key nutrients.	✓	✓	✓
Olsen Phosphorous	A test that measures the amount of phosphorus that is immediately available for plant uptake.	✓	✓	✓
Sulphur Profile (Sulphate S, Extractable Organic S)	This test measures both the readily available sulphate sulphur and the organic sulphur that will be released over time. Both are essential for protein synthesis and enzyme activity in plants.	✓	✓	✓
Volume Weight	Indicates the density or compaction of the soil.	✓	✓	✓
Resin Phosphorous	This test mimics how plant roots access phosphorus, providing an estimate of the more slowly available phosphorus in the soil.	✗	✓	✓
Anion Storage Capacity	The soil's ability to hold onto negatively charged nutrients, such as phosphate and sulphur.	✗	✓	✓
TBK Potassium	A test that indicates the long-term, reserve supply of potassium in your soil, which is crucial for managing soil fertility over time.	✗	✓	✓
Hot Water Extractable Carbon	Is a good indicator of microbial activity in the soil, as it is highly correlated with microbial biomass carbon and aggregate stability.	✗	✓	✓
Organic Matter	All the living and dead organic material in the soil. It's the "lifeblood" of healthy soil, improving structure, water retention, and providing a slow-release source of nutrients.	✗	✓	✓
Total Carbon	The total amount of carbon (both organic and inorganic) in the soil.	✗	✓	✓
Carbon:Nitrogen Ratio	This ratio shows the balance between carbon and nitrogen, which dictates the speed of organic matter decomposition and nutrient release to plants.	✗	✓	✓
Potentially Mineralisable Nitrogen	An estimate of the nitrogen that will become available to plants from the decomposition of organic matter. This helps optimise nitrogen management and reduce reliance on synthetic sources.	✗	✓	✓
Melich 3 Trace Elements	A comprehensive multi-nutrient test that measures a wide range of essential micro-nutrients and major elements including P, K, Ca, Mg, Na, S, Fe, Mg, Zn, Cu, B, Co, Al	✗	✳	✳
Boron	A vital micro-nutrient for plant growth, especially for cell wall formation, sugar transport, and calcium utilization.	✗	✳	✳
Aluminium	High levels of this element, especially in acidic soils, can be toxic to plants and inhibit root growth and nutrient uptake.	✗	✗	✓
Total Phosphorous	A measure of all the phosphorus in the soil, including both plant-available and unavailable forms. It gives a full picture of the total phosphorus bank.	✗	✗	✓
Total Sulphur	The total amount of sulphur in the soil. This is a crucial metric for understanding your soil's overall sulphur reserves	✗	✗	✓

✳ = Not Recommended if pasture samples are being taken