

High Definition Top Soil Mapping Solution

Your soil is talking... are YOU listening?

What is SoilOptix®?

SoilOptix® is a precision agriculture sensor technology that accurately maps your fields, and provides high resolution soil information for better optimization of inputs and other on-farm management decisions.

Digital Soil Analysis

With SoilOptix®, you get **over 25 layers** of high definition soil information. Much like a soil lab, we provide all standard (& most premium!) soil property analysis including:

- Unmatched soil texture profiling
- Macro & micro nutrients layers
- Elevation data & complex models

Why SoilOptix®?



Highest output resolution available with **335 data points per acre**



No interference from:

- crop residue/plant matter
- soil moisture
- temperature



Individualized soil property information layers- **No Zones!**

How It Works



Survey with Sensor

Vehicle-mounted passive **gamma radiation sensor** measuring natural geological information across your field.



Soil Sample

Samples taken strategically **once every 8 acres**, and sent to your local lab for analysis.



Data Processing

Field data returned to SoilOptix® for processing using **proprietary software & algorithms**.



Soil Maps

High resolution soil information returned to customer within a target of **10-12 business days**.



Our Technology

The SoilOptix® system utilizes a passive, **gamma radiation spectrometer** to measure natural, geological signatures emitted from the soil; allowing for stable, repeatable data collection.

Strategic soil sample locations are determined using an **advanced algorithm**, and are precisely geo-referenced using **RTK GPS**.

Final data is available through our **Customer Portal**, where you can view and download your individual soil property layers, or export via our direct **API-integration options like John Deere Operation Centre**.

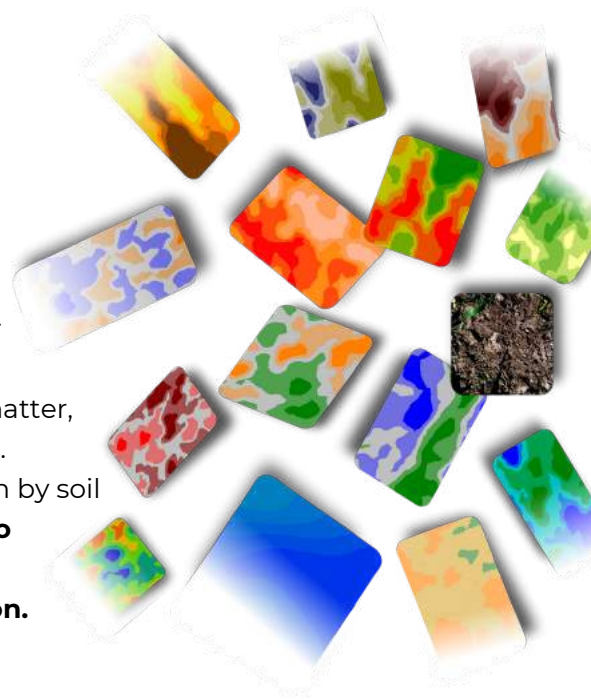
SoilOptix® vs Other Mapping Technologies

EC / EM Tools

- Active zone mapping tool- focuses solely on soil texture variation through field.
- 10 zones defined, broken down to 5 and sampled.
- Can be limited by soil moisture and ambient temperature.
- **Results show same boundary for nutrients, not independently treated.**

Gamma Spectrometry

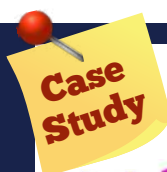
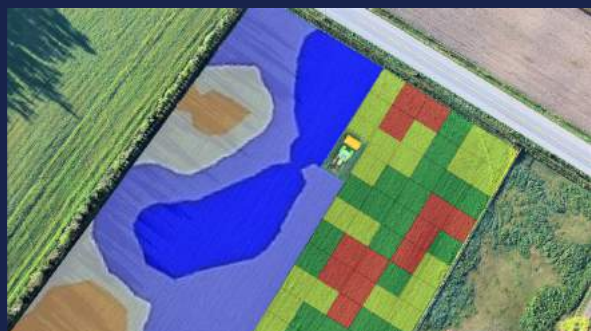
- Passive sensor technology.
- Data designed specifically for VRA Rx-building.
- No interference from plant matter, soil moisture, or temperature.
- Individual maps broken down by soil property, **giving the ability to treat soil properties independently with precision.**



Utilizing the Data

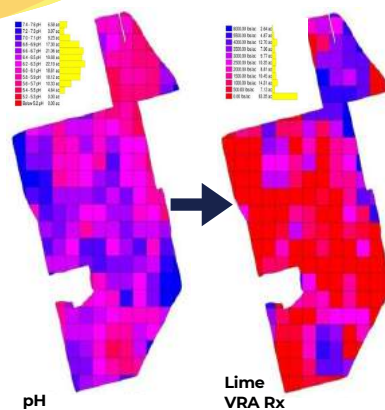
While the possibilities are **endless**, some common uses of SoilOptix® data include:

- **VR Fertilization**
- **VR Seeding**
- **VR Amendment**



VRA Lime on 150 Acres

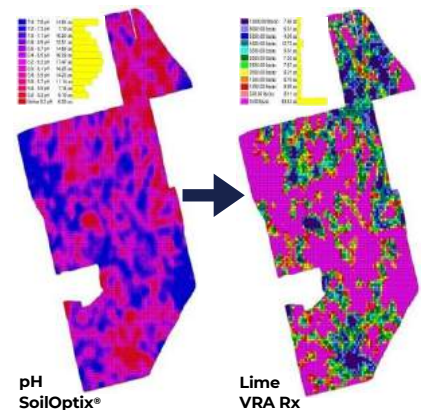
1 Acre Grid



Broad areas of concern addressed by 1 acre grid.

Total lime: 104.7 tonnes
63.35ac at 0 ton/ac.

SoilOptix®



SoilOptix® further defined areas of concern, applying higher rates on land needing more lime.

Total lime: 142.9 tonnes
63.43ac at 0 ton/ac.