SOILKIT™

WE ANALYZE. YOU FERTILIZE.

WHAT DO THE ITEMS ON THE SOIL REPORT MEAN?
LET'S BREAK IT DOWN:

MACRONUTRIENTS: 2 groups of Macronutrients (Primary and Secondary)

- **Primary:** Plants use large amounts for growth and survival.
  - **Nitrogen (N):** Fuel for plant, cell formation, responsible for photosynthesis
  - **Phosphorus (P):** Cell formation, root health, encourages bloom, transforms solar energy into chemical energy
  - **Potassium (K):** Root health, water regulation, photosynthesis, reduction of diseases, increases size and quality of fruits
- **Secondary:** Needed in moderate amounts.
  - **Calcium (Ca):** Essential part of plant cell wall structure, strength in plant, used in root system and leaf development
  - **Magnesium (Mg):** Activates many plant enzymes needed for growth, central atom of the chlorophyll molecule which makes it absolutely necessary to photosynthesis

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MICRONUTRIENTS: Elements essential for plant growth which are needed only in very small (micro) quantities

- **Boron (B):** Aids in production of sugar and carbohydrates, essential for germination of pollen grains and pollen tubes
- **Copper (Cu):** Important for reproductive growth, catalyst for other plant reactions
- **Iron (Fe):** Essential for formation of chlorophyll, carries oxygen, critical to photosynthesis
- **Manganese (Mn):** Involved in breakdown of carbohydrates and nitrogen metabolism
- **Zinc (Zn):** Essential for transformation of carbohydrates, regulates consumption of sugars

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ORGANIC MATTER: According to the USDA, "Soil organic matter (SOM) is the organic component of soil consisting of three primary components: small (fresh) plant residues with small living soil organisms, decomposing (active) organic matter, and stable organic matter (humus)." A healthy range is 2-6%

CATION EXCHANGE CAPACITY: An indication of the soil's ability to hold or absorb the cations or fertilizer that is applied. The higher the CEC, the more nutrients the soil will hold.

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pH: Measures the acidity of alkalinity in the soil. The industry standard for neutral is 7.

BUFFER pH: Indication of the soil's ability to resist a pH change. The higher the buffer pH reading, the smaller amount of lime is required to raise the soil pH. To lower the pH use sulphur.