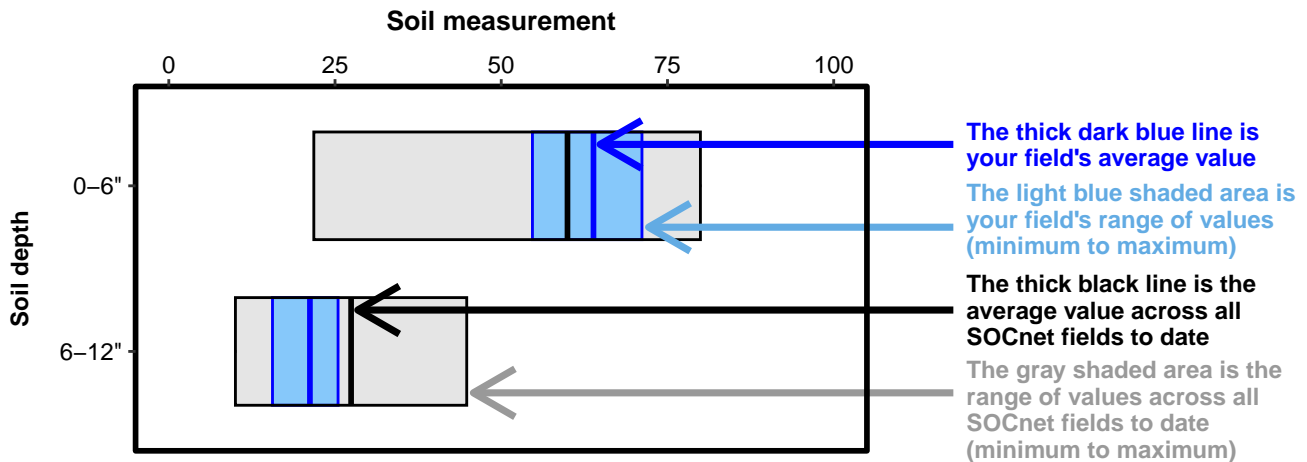


SOCnet Soil Report 2022

User's Guide to Farm Soil Reports

Reading the graphs



In the above example, the field's average for the 0-6\" depth is near the average of all SOCnet fields. However, the field's average for the 6-12\" depth is lower than the average of all SOCnet fields.

Understanding the measurements

Particulate organic carbon (POC): POC is mostly made up of pieces of dead plant material that are small (< 1/16\") but still mostly visible to the human eye. POC is sensitive to changes in land management such as tillage or cover cropping, making it a good early indicator of soil organic carbon change.*

Soil organic matter (SOM): SOM is the sum of all of the organic carbon, nitrogen, and other plant-derived elements in the soil.*

Soil organic carbon (SOC): SOC is the total amount of plant-derived carbon in the soil. SOC is typically about 50% of SOM, but the measurement of SOC is more accurate than SOM, which is why SOC is used in scientific studies and for carbon crediting.*

Soil P, K, Ca, and Mg: These are the estimated nutrients available to plants, as is commonly reported in routine soil fertility assessments. State extension agencies usually provide guidance for these values based on crop and soil type.

Soil pH: Soil pH represents the relative acidity of the soil, with lower values being more acidic. Management practices can affect pH, for example nitrogen application can lower pH while liming is used to raise the pH. Optimal pH is usually between 6.0 and 7.0, but state extension agencies can provide more specific guidance.

Sand and clay percent: Sand, clay, and silt content determine the soil's texture. Sandy soils tend to have a limited ability to store organic carbon whereas clayey soils can store more carbon.

**These measurements represent the starting point for long-term monitoring. Ideally, we would like to see POC, SOM, and SOC increase over time. In future years, we will report the changes in these values.*

Thank you for participating! Please let us know if you have questions or comments.

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