What's so important about soil health?

1 Soil with increased organic matter has:

- more soil organisms
- better soil structure, and
- more nutrient availability.

This leads to **increased crop production**.

2 Healthy soil is disturbed less by tillage passes, and requires less nutrient inputs, farmers will see **increased profits** due to reduced expenses.

3 Healthy soil captures more water. This can **reduce runoff** and keep good top soil in place.

Important soil health tests

Regular soil fertility tests are important. Other tests that assess soil health include:

- Water infiltration
- Water holding capacity
- Soil organic matter
- Yield maps and data

Can we "Scale Up" soil health data?

We know how to measure soil health at the **farm scale**, but what about at a broader scale, such as a **watershed or county**?

Static soil characteristics, such as texture, can be mapped for regions because there are established relationships with landscape features, such as slope, and they are not as affected by land management.

Dynamic soil characteristics that tell us more about soil health, such as organic matter and water infiltration rates, are more difficult to scale up to regions. This is because these characteristics are influenced by both landscape features and land management practices that vary.

So what approach do we use to scale up soil health data?

1. Keep measuring soil health at the field scale and relating it to relevant benchmarks.

2. Build the relationships between these dynamic soil characteristics and the landscape characteristics and land management practices.

3. Consider collecting data according to soil series or a group of soils (e.g. soil texture class) to get a range of values for these soils.

AUSABLE BAYFIELD CONSERVATION
CREATING AWARENESS | TAKING ACTION

For more information please visit abca.ca or omafra.gov.on.ca

Ontario