

Ontario Ministry of Agriculture, Food and Rural Affairs

Soil and Climate Change Soil Health and Conservation Strategy

Lake Huron Georgian Bay Summit

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OMAFRA's Role in Climate Change Mitigation

- Many organizations working on water quality and quantity
 - Very few address soils and soil health specifically
- Many provincial or watershed-based water quality and quantity policies or standards
 - Very few address soils
- Organizations may link soil health and crop production, but the intersection between soil, water, climate change, and production is complex
- <http://www.omafra.gov.on.ca/english/landuse/soil-strategy.htm>



So what exactly is soil health?

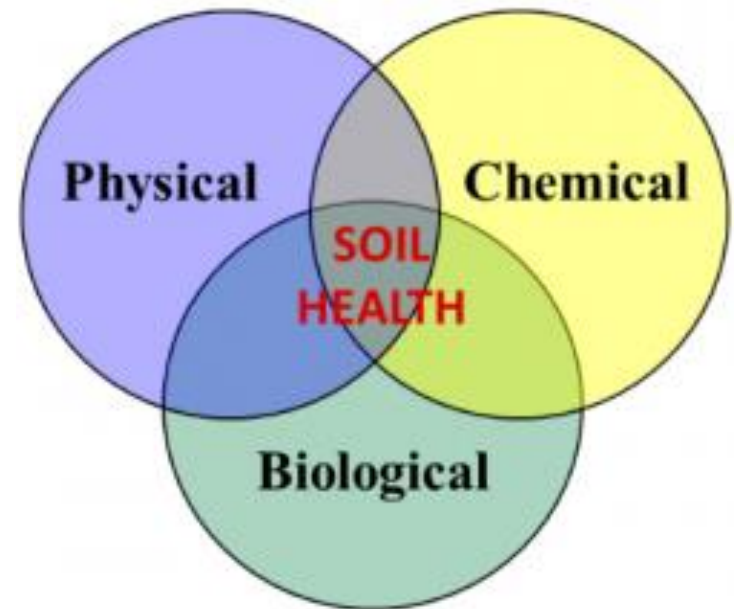
A soil's ability to:

- Accept, hold, filter and release nutrients and water
- Promote and sustain plant root growth
- Maintain soil organic matter and a biologically diverse soil life (e.g. worms, microbes, fungi)
- Have well-balanced nutrients and a suitable pH for the crops being grown
- Maintain its physical structure and be well aggregated to resist degradation (for example, by water or wind erosion and compaction)
- Have adequate pore spaces between particles to allow for the movement of water and air

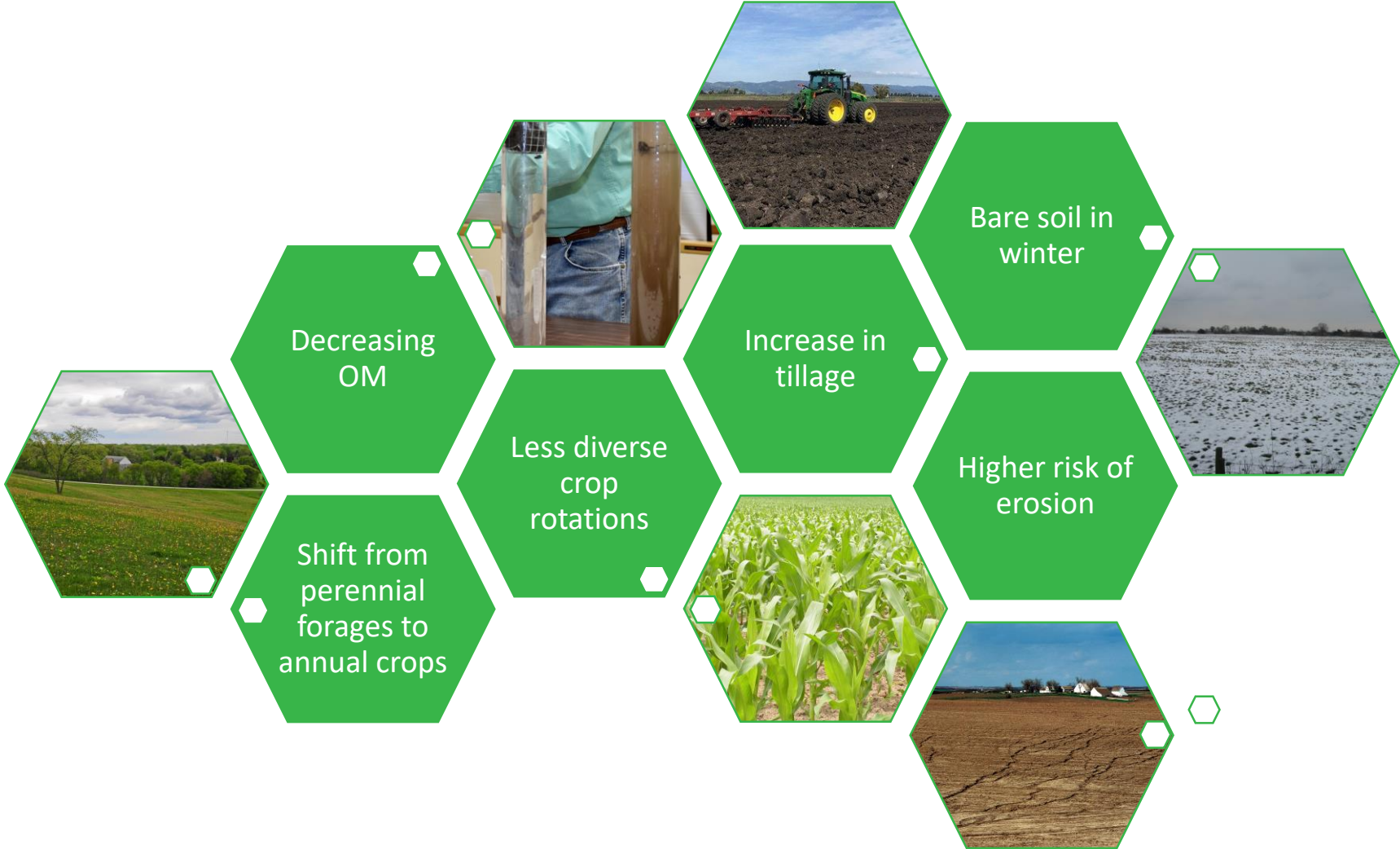
Connecting soil health and climate change

Economic and environmental benefits of healthy soil:

- Improved crop growth, yield and quality
- Increase in water and nutrient retention
- Resilience to withstand extreme temperatures, variable weather patterns and storm events
- Improved soil biodiversity
- Reduced risk of erosion



Challenges for Soil Health:



The Vision



“Healthy agricultural soils contribute to a vibrant agricultural sector, productive economy, sustainable environment and thriving society.”

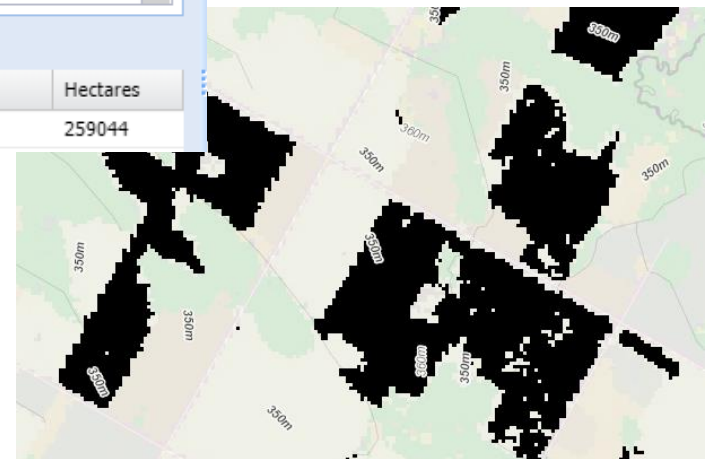
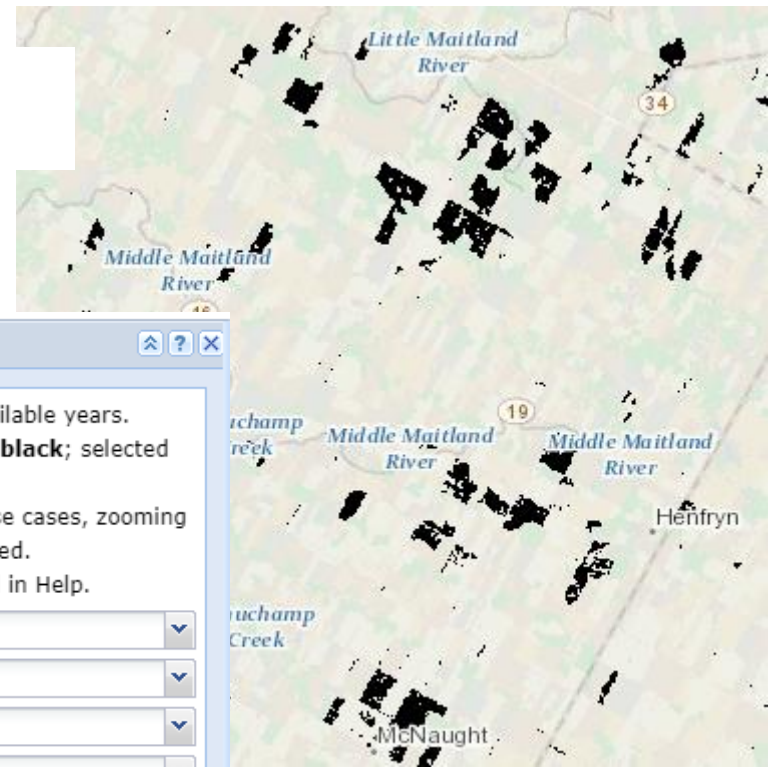
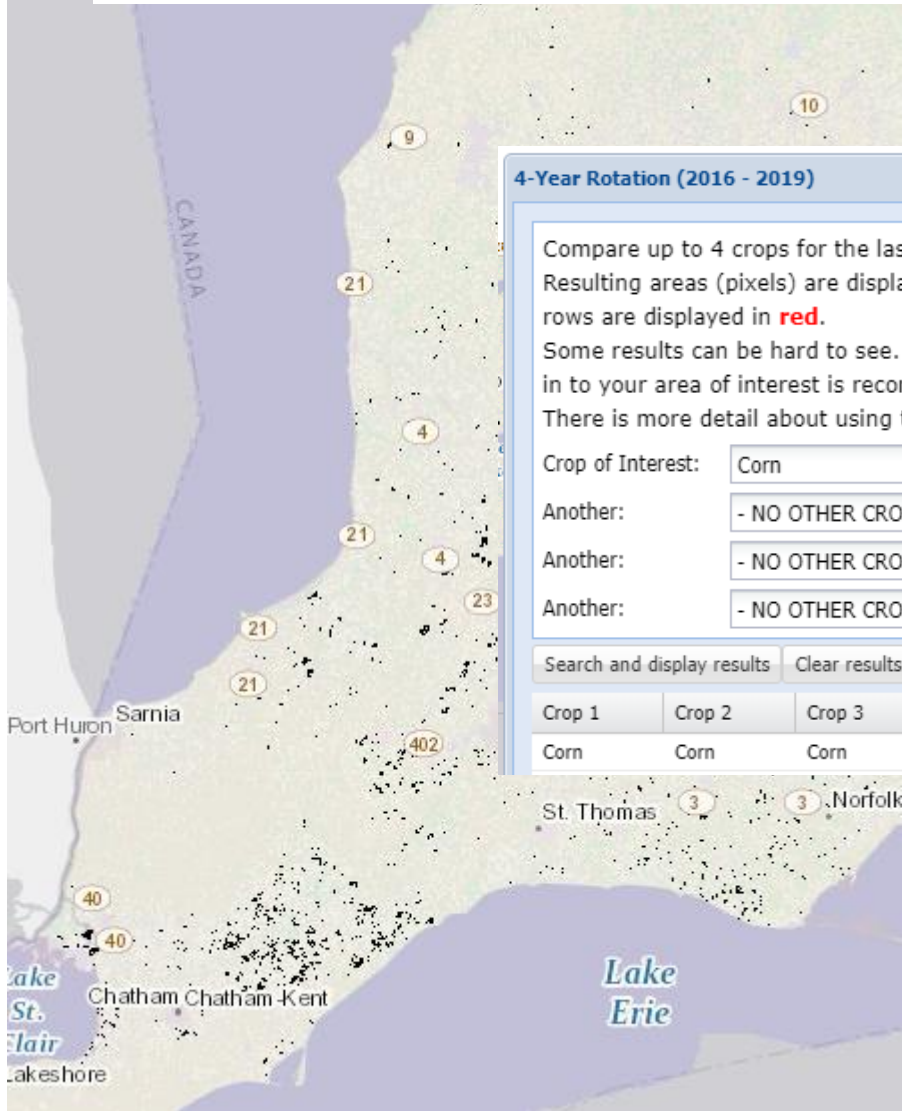
Tools and Measurement



Ontario's Agricultural Planning Tools Suite (AgriSuite)



AAFC Crop Mapping Tool



Thank you!



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