ONFARM Program Highlights Successful First Year

The On-Farm Applied Research and Monitoring (ONFARM) program is a four-year, applied research initiative delivered by OSCIA on behalf of OMAFRA to support soil health and water quality research across farms in Ontario. This program is funded by the Canadian Agricultural Partnership, a federal-provincial-territorial initiative. The ONFARM program encompasses extensive soil health and water quality analysis on 33 sites on working farms across southern Ontario. This network of sites and established partnerships with ONFARM cooperators will help to build a stronger understanding of best management practices (BMPs) and their effects on soil health and water quality on Ontario agricultural lands. OSCIA is very excited with the progress made in the first year of the program.

OSCIA highlighted results and experiences from the first year of ONFARM at the 2021 ONFARM Forum, which took place on February 10, 2021. The presentations and discussions from the Forum were recorded and can be viewed on the ONFARM website. A Forum Summary Report, including points from each presentation, discussions and key takeaways is also available on the ONFARM website:

https://www.osciaresearch.org/onfarm-applied-research/onfarm-forum/

ONFARM Soil Health Year 1 Summary

- 33 Cooperator site (8 EoF and 25 BMP Trial) agreements
- Representative soil landscape sampling benchmarks
- · Baseline soil health sampling and assessment + native sites
- 8 EoF sites with 16 treatment sub basins
- 25 BMP Trial sites with 99 treatment field strips
 - BMPs: 24 sites with cover crop, 18 organic amendments















Photo Credit: The Soil Resource Group

Results reports from the first year of the program for the 25 soil health paired BMP trial sites and eight edge-of-field (EOF) water quality monitoring and modeling sites will be available on the ONFARM website in spring of 2021 to view and download.



This T-shaped berm splits the field containing a cover crop (left) and no cover crop (right) at the edge-of-field site in the North Kettle subwatershed. Photo Credit: Upper Thames River Conservation Authority

Don King, Research Agronomist and Principal, The Soil Resource Group, manages activities at the soil health paired BMP trial sites, including visiting sites to prepare plots, collect samples and analyze information. Excited by the first year's results Don stated, "the cooperators bring a wealth of experience that has helped the team complete the first step of the project in establishing BMP comparison sites across the province to better understand the links between different landscapes and management, how they affect soil degradation and to enable us to track changes in soil health over time."

The eight EOF sites are managed by five conservation authorities, including Essex Region Conservation Authority, Lower Thames Valley Conservation Authority, Upper Thames River Conservation Authority, Ausable Bayfield Conservation Authority and Maitland Valley Conservation Authority. Tatianna Lozier is the Agricultural Soil and Water Quality Technician with the

Upper Thames River Conservation Authority, which has two sites implementing controlled drainage and cover crops respectively. Tatianna explained, "the amount of progress made this year under the ONFARM program has been excellent. With the set-up of the edge-of-field site and ongoing sampling at the subwatershed level, the collection of water quality data has been an integral part of the project. There were certainly some changes in how we interact with farmer cooperators and project partners this last year, but everyone's readiness to adapt is reassuring as we move forward with the project."

Ahead of the first year results reports being published, there is a wealth of information about the program and project sites on the ONFARM website available via an interactive map. Individual project site information such as soil health goals, BMPs, and photos can be viewed on the map: https://www.osciaresearch.org/onfarm-applied-research/interactive-map/. The website and map pages will be updated regularly with new photos, information and media. Results reports will be published annually each spring. There are also many outreach and communications activities planned for 2021 to share project information and results fulsomely to the Ontario agricultural community and beyond.

Questions about ONFARM? Please contact onfarm@ontariosoilcrop.org. Follow OSCIA on Twitter (@OntarioSoilCrop) for updates on #ONFARM and all OSCIA programs.