Prepared By: ONFARM KTT Advisory Committee

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ONFARM

## **The Project**

The On-Farm Applied Research and Monitoring (ONFARM) program is a nine-year applied research initiative that supports soil health and water quality research on farms across Ontario.

The program is currently funded by the Sustainable Canadian Agricultural Partnership, a five-year federal-provincial-territorial initiative. Developed by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and delivered by the Ontario Soil and Crop Improvement Association (OSCIA), ONFARM builds on work accomplished under the Great Lakes Agricultural Stewardship Initiative's (GLASI) Priority Subwatershed Project with an expanded emphasis on soil health. The program encompasses a range of activities, including rigorous monitoring of soil health and water quality on working farms across the province and examining the effectiveness of different agricultural best management practices (BMPs) through paired trials and how they impact soil health, water quality and productivity.

### ONFARM has three primary objectives:

- 1. Evaluate novel soil health indicators and test BMPs through continued paired plot trials at sites across Ontario.
- 2. Study impacts of BMPs on in-field soil-water dynamics and water quality.
- 3. Engage with farmers and stakeholders to transfer knowledge on BMP implementation and impact.

With the success of ONFARM's initial phase from 2019-2023, the program has recently been renewed for continuation through 2028.

The program's renewal will allow for the continued collection of critical data supporting BMP outcomes from the long-term soil health trial and edge-of-field water quality monitoring sites. This will enable a deeper understanding of the impacts of BMPs, such as cover cropping and organic amendment application, and the novel soil health indicators being tested.

Additionally, the program's extension aims to uncover insights into how these BMPs support good soil-water dynamics for crop resilience and learn more about how profitability and site-specific agronomy can support farmers' management decisions.

### KTT Advisory Committee

The ONFARM KTT Advisory Committee has been brought together to enhance collaboration amongst Ontario's agriculture sector organizations that are involved in on-farm applied research, monitoring and demonstration initiatives that relate to agri-environmental stewardship, focused on water quality and soil health. The committee will help to shape and collaborate on engagement and communication activities, including the creation of an Outreach and Engagement Strategy, which will be reviewed and updated annually.

The ONFARM Project has successfully engaged the following organizations through membership on the KTT Advisory Committee. This is an important strength, as these organizations have existing networks that can be leveraged for engagement.

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- Conservation Ontario
- Ecological Farmers Association of Ontario
- Grain Farmers of Ontario
- Beef Farmers of Ontario
- Livestock Research Innovation Corporation
- Northern Ontario Farm Innovation Alliance
- Ontario Ministry of Agriculture Food and Rural Affairs
- Ontario Soil Network
- Soils at Guelph

The composition of the KTT Advisory Committee is not static: it may increase in size or shift in membership as the scope of the project advances.

# **Objectives & Approach**

The objectives of this strategy are derived from the short, medium, and long-term outcomes of the ONFARM KTT (see page 4). The engagement and outreach strategy activities:

- 1. Provide accessible evidence-based solutions to Ontario farmers for improving soil health and reducing nutrient loss, promoting adoption of BMPs.
- 2. Share experiences and strategies of successful soil health pioneers to encourage farmers and advisors to embrace new BMPs.
- 3. Foster collaboration among farmers, advisors, researchers, and other partners to enhance access to information and support for water quality and soil health initiatives.
- 4. Elevate ONFARM's profile to generate opportunities (e.g., funding) for long-term soil health and water quality research and increase shared responsibility between government and industry.

### Outreach Partners and Collaborations

The ONFARM project will collaborate with several groups, in addition to those represented on the KTT Advisory Committee, to strengthen the reach of the project and build strong partnerships to advance common goals. These groups may include:

- Innovative Farmers of Ontario
- Academic institutions
- Other jurisdictions with similar programming such as the Midwest Cover Crops Council, Cornell University, Practical Farmers of Iowa, Vermont Healthy Soils Coalition, and University of Wisconsin (Wisconsin Discovery Farm Model)
- Industry groups (i.e., Ontario Certified Crop Advisor Association, Ontario Agri Business Association, Ontario Federation of Agriculture)
- Stakeholders for various watersheds impacted by the ONFARM project (e.g., conservation authorities, other stewardship groups)

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 Other provincial soil health and water quality initiatives (Grain Farmers of Ontario's applied research activities, Ecological Farmers Association of Ontario's farmer-led research program, Ontario Soil Network Challenge, ALUS, Greenbelt Foundation Soil Health Program, etc.)

## **Target Audiences**

The target audience refers to those stakeholders that the activities below are aimed to engage and that will be end-users of KTT products and ONFARM data.

#### **Farmers**

Farmers, specifically on-farm decision-makers, are the primary target audience of the activities below. These farmers are actively seeking regionally specific information to inform their management practices. Farmers and other stakeholders who are interested in learning about what other farmers are doing should be able to engage with the ONFARM project in an accessible way. Additionally, farmers who do not actively engage with agricultural organizations or initiatives should be able to engage with the project, as outreach and engagement activities should reflect the diversity of needs, knowledge, and methods of seeking information and learning.

### **Government and Conservation Authorities**

Government and conservation authority audiences must also be engaged. This is a key step in terms of ensuring the success of the ONFARM project by creating positive outcomes through effective knowledge transfer to the public sector, which has the capacity to keep the project viable beyond its funding agreement. Conservation Authorities also have an ongoing interest in soil health and water quality research. These groups can help drive interest on a regional and watershed level.

#### Agri-food, Agribusiness, Related Organizations, and Non-Traditional Partners

Some organizations are already engaged through membership on the KTT Advisory Committee. Additional organizations should be engaged to complement ONFARM and leverage existing networks to engage the broader farming sector, such as Federations of Agriculture (provincial and local), 4-H Ontario and municipal Agricultural Advisory Committees. Non-traditional partners might include ag financial institutions or for-profit companies such as seed, fertilizer, and equipment dealers. These organizations might have an interest in investing in ONFARM activities (financial and in-kind) and often employ on-farm influencers such as Certified Crop Advisors. Such involvement will increase the reach of engagement activities for effective knowledge mobilization across the sector.

#### Research & Academia

This audience will be informed with new knowledge of interest regarding soil health, water quality and the BMPs being evaluated. Researchers will benefit from the knowledge generated from this research as it may guide and/or inform future research in these areas. Keeping them up to date on ONFARM findings and activities will foster opportunities for collaboration and resource sharing. Some research programs, such as Living Lab – Ontario, have overlap with ONFARM in terms of cooperating farmers. Finding efficiencies and opportunities to collaborate will reduce cooperator burden, extend resources, and increase reach.

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## **Evaluation Measuring Success**

Evaluation is a critical component to the strategy's implementation and will enable the project team to improve KTT offerings and meet producers' needs. To support this process, OSCIA will record, collect and share feedback on outreach and engagement activities and its impacts on project outcomes. Evaluation will be conducted through:

- Project team/KTT Advisory Team debriefs.
- Participant evaluation surveys integrated into all in-person and online outreach activities, including
  questions on practice change and knowledge gained.
- Annual review and updating of the Outreach & Engagement strategy.

## Measuring Success

Program outcomes are inspired by the objectives outlined above and are separated into short, medium, and long-term measures of success.

#### **Short Term**

Short-term measures of success will mostly consider participation rates in engagement activities. These measures include targets of:

- 6 events per year, with 10-25 participants at each event
- 80-100 participants at the annual Forum
- Increased engagement on social media
- Increased engagement with KTT products developed and with the ONFARM dataset
- 500 ONFARM webpage visits and 50 downloads of various reports annually

### **Medium Term**

Medium-term success will look beyond participation in the ONFARM engagement activities and focus more on awareness and uptake of BMPs. Measures include targets of:

- 4-8 contributing partners across all cooperator sites
- 15% leveraged investment (in-kind and financial) at cooperator sites
- Increased percentage of farmers who indicate net positive change in understanding/knowledge of soil health and water quality BMPs
- Increased percentage of farmers who indicate intention to adopt soil health and water quality BMP strategies
- Number of farmers reporting increased acreage of soil health and water quality BMPs through surveys
- Increased collaboration amongst Ontario's agriculture sector organizations that are involved in onfarm applied research, monitoring and demonstration initiatives focused on water quality and soil health

### Long Term

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Measuring long-term success can be more challenging without baseline metrics. ONFARM will monitor the landscape for opportunities to leverage this type of data from other Ontario-based initiatives. While long-term success may not be directly attributed to the ONFARM project, it is important to include larger goals for the project to work towards, including:

- Improved soil health and water quality on farms across the province resulting from improved confidence in and access to data for BMPs evaluated through ONFARM
- National (or international) recognition of ONFARM as a model for on-farm research success

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## **Outreach Implementation Work Plan**

The following list of activities will help to engage stakeholders across Ontario to achieve the goals of this strategy. The KTT Advisory Committee will work with OSCIA to contribute to these activities and their outcomes. KTT and producer engagement will recognize the diversity of needs, knowledge, and methods of seeking information and learning, and will include but not be limited to:

Raising Awareness - Communic		Timeline	Towns	Dungung	Audianas
Social Media	Elevate profile of ONFARM, communicate key project milestones and outcomes, drive engagement with KTT products and events primarily through X (formally Twitter) and Facebook. Use relevant hashtags (e.g., #OntAg) to reach target audiences.	Y1-Y5	Target	Ongoing Progress	Farmers, Industry, Crop Advisors, Researchers & Academia
Media Articles/Media Releases	Highlight ONFARM outcomes, milestones, and activities in the farm media (e.g., Ontario Farmer, Farmtario, Better Farming) and industry publications.	Y2-Y5			Farmers, Industry, Crop Advisors, Researchers & Academia
TBD	Announce expansion and selection of ONFARM sites in Northeastern Ontario.	Y2	2-3 publications		
Newsletters					Mixed
Grassroots Matters	Short articles will be used to drive engagement with reports, KTT products developed and registration for events.	Opportunities Bi-Weekly			OSCIA members
The Innovator	Longer articles will highlight key project milestones and findings.	Opportunities Quarterly			OSCIA members

Partner & Collaborator Newsletters	Share targeted/relevant cooperator profiles,				
	case studies, reports and event registration				
	information with partner and collaborator				
	networks.				1
Webpage	Update landing page for the project	Y1 Q4	500 visits, 50	January 2024,	Mixed
	which will host KTT products, Data		downloads	Ongoing	
	Dashboard and partner recognition.		annually		
Update interactive map	The ONFARM webpage was recently	Y2			
	moved and updated. The interactive map				
	must be updated to reflect new sites (TBA)				
	and migrated over to the new webpage. The				
	update should include cooperator profiles				
	and redirect to the Data Dashboard.	1/0			
Field Signs	ONFARM cooperators have expressed	Y2			Farmers, public
	interest in semi-permanent field signs				
	which highlight their involvement in				
	initiatives that align with values of				
	neighbours and the public. Signs could				
	redirect to ONFARM website.				
Branded Materials					Mixed
ONFARM Apparel	Cooperators and researchers will receive	Y1-Q4		In progress	Farmers
	ONFARM branded apparel to elevate the				
	programs profile organically and function as				
	a conversation starter at farm meetings and				
	other events				ļ
Tradeshow/Conference Display	Design and print display materials for use at	Y2		In progress	All
	agricultural meetings, conferences and				
Talling the Ctom. Knowledge	tradeshows including retractable banners.				
Telling the Story – Knowledge		Time aline	Towns	Dunamana	Andiones
Activity	Description/Notes	Timeline	Target	Progress	Audience

Profiles/Case Studies	Create short, high-level and consistent profiles for all ONFARM sites. Users will navigate to profiles from the interactive map. Profiles can be enhanced by addition of high-quality photos (see Photo Library)	Y2-Y5	Minimum		Farmers, Government, Conservation Authorities
Videos		Y2-Y5	three (3)		Farmers
Monitoring Soil Health with ONFARM	Short overview of the soil health monitoring occurring at ONFARM paired BMP trial sites.		knowledge transfer products	Posted in 2023	
Photo Library	Enhance communications and KTT products by building library of high-quality images of BMPs and ONFARM cooperators/researchers.	Y2-Y3	annually		Partners and Collaborators
Knowledge Transfer & Enga					
Activity	Description/Notes	Timeline	Target	Progress	Audience
Webinars		Y2-Y5			Mixed
On-Farm Research 'How-To" Workshop	Appetite from OSCIA membership for a "How-To" workshop about setting up onfarm research trials for farmers or crop advisors less familiar with best practices. This would compliment the On-Farm Research guidebook developed in the initial phase of ONFARM. The workshop could take place in multiple regions and/or be offered online through a webinar or webinar series. A recording could act as a continuous resource.	Y2			Farmers, Crop Advisors

Annual Forum	The Forum is an opportunity to reflect on ONFARM progress and results, identify knowledge gaps and solutions, and highlight complimentary research initiatives.	Y1-Y5	80-100 participants annually	Forum on 02/08/2024	Farmers, Government, Conservation Authority staff, Certified Crop Advisors, Academia
Data Dashboard	Data Dashboards are a public space to access the ONFARM data and results. Users can explore well-known soil health measurements such as organic matter alongside more novel indicators, like Solvita CO2-Burst and active carbon, to see how relationships between indicators may change over time or by BMP treatment. Users can also compare soil samples from their own farms to see how their soil health might compare to other farms in the region or across Ontario.			Ongoing	Farmers, Academia
Knowledge Transfer & Engage	ment – In-person Outreach Description/Notes	Timeline	Target	Progress	Audience
Activity  Demonstration Events	On-farm events where participants can see research and BMPs in action. Where possible, collaborate with other like-minded programs or organizations, and non-traditional partners, to leverage funding and resources and reach a wider audience. Create value-add opportunities such as CEU credits for CCAs or KSEs for OFCAF applicants.	Y2-Y5	Target 3 annually/25 participants (75)	Progress	Mixed

Latornell Conservation Symposium (Field Trip)	ONFARM cooperator hosted one of the symposiums annual "field trips", where participants were introduced to ONFARM, toured ONFARM trial site to learn more about soil health measurements and cover crops, and drone technology which will be used to enhance research at some sites in partnership with TerraNova UAV. This opportunity should be revisited in a later program year.	Y1, Y4/Y5		Field trip on 10/23/2023	Conservation Authority staff
Farm Innovation Tours	Collaborate with LRIC on one of four annual "Farm Innovation" events at an ONFARM site hosted by a cooperator with livestock in their operation and a manure BMP trial.	Y2 or Y3		In progress	Government, Researchers
Displays at Farm Shows, Agricultural Conferences & Meetings	Establish ONFARM presence (e.g., booth) at agricultural conferences, meetings and farm shows attended by target audiences to build program awareness and share KTT products.	Y1-5			Mixed
Canada's Outdoor Farm Show (COFS)	Enhanced ONFARM display at the OSCIA/OMAFRA Booth	Y1-Y5		Booth at 2023 COFS	Farmers
Presentations	Present ONFARM activities and results at soil health and/or agronomic meetings and conferences	Y1-Y5	4 annually		Mixed
CCA Soil & Water Day	Progress and results from initial phase of ONFARM with a focus on soil health	Y1		Presentation on 11/15/2023	Certified Crop Advisors
Latornell Conservation Symposium (Presentation)	Progress and results from initial phase of ONFARM with a focus on water quality monitoring and modelling	Y1		Presentation on 10/24/2023	Conservation Authority staff
GFO Research Forum	Presentation on OSCIA-delivered applied research initiatives including ONFARM, Living Lab – Ontario and Grassroots Research Grants.	Y1		Presentation on 02/20/2024	Industry, Farmers

North West International Ag Expo	Potential opportunity to announce and/or highlight the new ONFARM sites located in Northern Ontario	Y2 (July 2024)			Farmers, Industry
OSCIA AGMs & Spring Meetings	Actively seek opportunities to present ONFARM activities and results to OSCIA member	Y2-Y5			Farmers
Training/Knowledge Transfer Events	Workshops and small group sessions to facilitate knowledge development and sharing on selected BMPS or decision support tools.	Y2-Y5	3 annually/10 participants (30)		Mixed
Crop Diagnostic Days	Leverage the success and captive audience present at Crop Diagnostic Days to elevate profile of ONFARM and share results/resources	Y2			Farmers, Crop Advisors
On-Farm Research 'How-To" Workshop	Appetite from OSCIA membership for a "How-To" workshop about setting up onfarm research trials for farmers or crop advisors less familiar with best practices. This would compliment the On-Farm Research guidebook developed in the initial phase of ONFARM. The workshop could take place in multiple regions and/or be offered online.	Y2			Farmers, Crop Advisors
Committees/Research Advisory Groups	Representation on committees/working groups with complimentary objectives to ONFARM (e.g., Soil Action Group, Ontario Soil Management Committee, Ontario Soil Network Farmer Engagement Committee) will ensure the program remains relevant and front of mind to members and promotes opportunities for collaboration	Y1-Y5		Ongoing	Government, Industry and Academia