

**MEMORANDUM OF COOPERATION  
4R NUTRIENT STEWARDSHIP PROGRAM**

**THIS MEMORANDUM OF COOPERATION** made this 20<sup>th</sup> day of November, 2018.

**BETWEEN: FERTILIZER CANADA**

**AND: ONTARIO AGRI BUSINESS ASSOCIATION**

(hereinafter referred to as "OABA")

**AND: HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO**, as  
represented by the Ontario Ministry of Agriculture, Food and Rural  
Affairs

(hereinafter referred to as "OMAFRA")

**AND: GRAIN FARMERS OF ONTARIO**

(hereinafter referred to as "GFO")

**AND: ONTARIO FEDERATION OF AGRICULTURE**

(hereinafter referred to as "OFA")

**AND: CHRISTIAN FARMERS FEDERATION OF ONTARIO**

(hereinafter referred to as "CFFO")



## 1. PURPOSE

The purpose of this Memorandum of Cooperation (the “MOC”) is to outline areas of collaboration between Fertilizer Canada, OABA, OMAFRA, GFO, OFA, CFFO, (the “Parties”) in regards to:

- a. The implementation of Fertilizer Canada’s voluntary nutrient stewardship initiative in Ontario, known as the *4R Nutrient Stewardship - Right Source @ Right Rate, Right Time, Right Place®* program (the “Program”), in support of promoting the sustainability of Ontario’s agricultural resources; and
- b. Adapting the Program’s best management practices to Ontario’s agricultural production systems and unique regional climatic, soil, and operational conditions to ensure that it is effective.

## 2. OBJECTIVES

- a. To improve nutrient management and the protection and conservation of Ontario’s agricultural soils through the implementation of the Program, as described in Schedule 1 of this MOC.
- b. To establish mechanisms to assist in the pursuit of common objectives related to the implementation of the Program that reflects the priorities of the Parties with respect to soil health and nutrient management and the Ontario government’s commitments under the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health, specifically as they relate to nutrients.

## 3. PRINCIPLES

- a. The Parties acknowledge that healthy soils are essential to economic and environmental sustainability and that the proper application of nutrients is important to soil health and crop nutrition; however, the application of nutrients in excess of crop requirements is not desirable.
- b. The Parties recognize that voluntary nutrient management programs based on sound science, expert advice and public education are one component of a comprehensive approach towards a solution to reducing negative environmental impacts including nutrient loading to the Great Lakes.
- c. The Parties recognize that crop nutrient best management practices (BMPs) must be science-based and that a variety of BMPs may be required to deliver the right nutrient source at the right rate, time and place.
- d. The Parties recognize the important role of trained and qualified professionals (e.g. Certified Crop Advisers (CCAs), and Qualified Nutrient Management



Planners (“QNMPs”)) in the development and implementation of sustainable nutrient stewardship programs for Ontario farmers.

- e. The Parties understand the value of measurement to monitor progress and ensure continuous improvement and recognize that measures must be reflective of the long-term economic, social, and environmental impact of crop nutrient BMPs adopted by Ontario farmers.
- f. The Parties understand that nutrient stewardship planning for crop production is an essential component of environmental farm planning.
- g. The Parties recognize that other steps may also be needed to achieve sustainable soil health and crop nutrition.

#### **4. COMMITMENTS OF THE PARTIES**

##### **Commitments of all Parties**

##### **(1) The Parties make the following commitments:**

- a. The Parties are committed to achieving sustainability in partnership with the agricultural sector.
- b. The Parties are committed to continuing to strengthen environmental stewardship by helping farmers to adopt science-based BMPs.
- c. All Parties agree to work in collaboration to promote the adoption of voluntary nutrient management plans based on the principles of the 4R Ontario Certification Program, where possible.
- d. The Parties are committed to advancing the measurement of the impacts of these efforts on the economy, environment and society.
- e. The Parties will make in-kind contributions toward this effort as detailed in Schedule 2 to this MOC.
- f. All Parties agree to work in collaboration with producer groups, recognized and qualified specialists (e.g., CCAs and QNMPs), conservation authorities and government specialists towards the adoption of a sustainable 4R Nutrient Stewardship Program.
- g. The Parties will work with stakeholders to establish appropriate metrics for the adoption and impact of the Program.
- h. The Parties will work towards developing effective on-going and long-term monitoring of the effectiveness of the Program; and
- i. All Parties agree to support the development, implementation and adaptive management of the Program in Ontario.



- (2) Each Party shall determine the nature and extent of each commitment it has made under subsection (1).

**Industry Commitments:**

- a. Fertilizer Canada and OABA will develop a system to identify areas of cropland being managed under the agri-retailer 4R Nutrient Stewardship Certification Program in Ontario towards demonstrating the tangible commitment being made by the agricultural industry to environmental sustainability.
- b. Fertilizer Canada and OABA will provide financial support to enable pursuit of this MOC's objectives as set out in Schedule 2 to this MOC.

**Government of Ontario Commitments:**

- a. OMAFRA will provide technical support in the development and implementation of the Program. The extent and nature of such support will be determined by OMAFRA.
- b. OMAFRA will consider funding requests on a project by project basis related to the Program.

**Grower Organization Commitments:**

- a. GFO, OFA and CFFO will engage membership and provide support for 4R Nutrient Stewardship Research Extension events and 4R Demonstration Tours for Ontario growers
- b. GFO, OFA and CFFO will work with Fertilizer Canada to further develop the Fertilizer Use Survey for Ontario growers by identifying key practices and indicators for an incremental increase in 4R Nutrient Stewardship adoption
- c. GFO, OFA and CFFO will provide financial support to enable pursuit of this MOC's objectives as set out in Schedule 2 to this MOC.

**5. IMPLEMENTATION OF MOC**

The Parties will continue to implement the established 4R Ontario Nutrient Stewardship Steering Committee (the "Committee"). The Committee will be comprised of up to three members from each of the Parties and other members as mutually agreed to by all the Parties. The chair of the Committee and its members will be mutually agreed on by the



Parties. The Parties agree that the Committee cannot bind any Party. Work under the Committee may include, but is not limited to:

- Providing and reporting on 4R Nutrient Stewardship training for recognized and qualified specialists.
- Promoting the 4R Nutrient Management Specialty (NMS) CCA certification for Ontario CCAs.
- Hosting in-person extension and training events for Ontario farmers to increase farmer adoption of BMPs within the performance areas of the 4Rs.
- Supporting the continued implementation of 4R Nutrient Stewardship Certification Program in Ontario, in partnership with 4R Certified Retailers to help farmers complete 4R Nutrient Stewardship Management Plans and provide 4R consistent agronomic advice.
- Reviewing and updating the 4R Ontario audit standards as required, based on new evidence and or lessons learned through implementation.
- Advancing performance measurement to strengthen baseline information on nutrient management practices and attitudes in Ontario and track adoption of 4Rs practices.
- Striving to create a culture of open and transparent data among the Ontario 4R Steering Committee, service providers, retail outlets and participating farmers to support improved baseline information, benchmarking and tracking of 4R trends.

## 6. TERM OF MOC

The term of this MOC shall commence on the 1st day of January, 2019, and end on the 31st day of December, 2021.

## 7. MEASURES AND OBLIGATIONS

Nothing in the MOC creates any funding obligations for any of the Parties.

The activities carried out under this MOC must be consistent with the 4R Nutrient Stewardship principles, and must not conflict with any requirements established through regulation under the *Nutrient Management Act, 2002* or any other statutory authority.

Nothing in the MOC precludes any of the Parties from exercising any authority or complying with any obligations prescribed under the laws of Ontario or Canada.



**8. AMENDMENTS**

The MOC may be amended in writing with the consent of all Parties.

**9. TERMINATION**

Any of the Parties can terminate participation in the MOC by providing not less than thirty days written notice to each of the other signatories.

**10. NOT LEGALLY BINDING**


For greater certainty, this MOC, including the Schedules, does not create legally binding obligations on the Parties.



Dated: November 20, 2018

**IN WITNESS WHEREOF** the parties thereto have executed this Memorandum of Cooperation as of the day and year above written.


**FERTILIZER CANADA**



---

Garth Whyte, President and Chief Executive Officer


**GRAIN FARMERS OF ONTARIO**



---

Crosby Devitt, Vice President

**ONTARIO AGRI BUSINESS ASSOCIATION**



---

Dave Buttenham, Chief Executive Officer


**ONTARIO FEDERATION OF AGRICULTURE**



---

Keith Currie, President

**HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO**, as represented by the Ontario Ministry of Agriculture, Food and Rural Affairs



---

The Honourable Ernie Hardeman,  
Minister

**CHRISTIAN FARMERS FEDERATION OF ONTARIO**



---

Clarence Nywening, President



## SCHEDULE 1:

### Context:

The agriculture and agri-food sector is a major player in Ontario's economy. In 2016, it contributed \$111.9 billion to Ontario's gross domestic product (GDP), and sustained over 2.3 million jobs - about one in every nine jobs across the province.

The industry includes a wide spectrum of businesses - farms and food processing plants, distributors, retailers and restaurants. It also includes companies making non-food products from agricultural sources, such as bioplastics and biodiesel.

Over the past decade, even when other parts of Ontario's economy experienced a downturn, Ontario's agri-food sector has registered growth, at an average of about one per cent a year.

Fertilizers and supplements are an important crop input. They help farmers feed our growing population. Fertilizers can help replenish essential nutrients in the soil and when used efficiently in conjunction with other good soil health management practices can assist in maximizing crop yields and minimizing environmental impacts.

The Ontario agriculture industry recognizes the nutrient issues facing Great Lakes water quality and understands that voluntary actions in agriculture need to be part of the solution. The industry recognizes that we must increase our efforts on implementing 4R Nutrient Stewardship solutions as part of the strategy.

Farmers are committed to learning about environmental practices and are working with the fertilizer industry to improve and protect the Lake Erie Watershed of Ontario by supporting education, research and outreach on innovative farm practices.

The Ontario agriculture industry supports the need to protect and restore the ecological health of the Great Lakes and is committed to being a part of the solution to ensuring the Great Lakes remain "drinkable, swimmable and fishable." The industry recognizes the importance of environmental stewardship and its role in ensuring the proper use of fertilizer. Ontario has been a leader in encouraging farmers to use nutrient management planning in crop production.

Implementation of effective 4R Nutrient Stewardship BMPs and the agri-retailer 4R Nutrient Stewardship Certification Program will support OMAFRA's and industry's commitments under the Canada-Ontario Lake Erie Action Plan to reduce excess nutrient runoff to the Great Lakes basin. Effective nutrient management also supports OMAFRA's soil health strategy.

### The 4R Nutrient Stewardship Framework





The fertilizer industry has established the 4R Nutrient Stewardship Framework in cooperation with government, researchers, customers and the public. Adjustments in the crop nutrient source and application rate, timing, and placement method may greatly reduce the risk of nutrient losses.

The **Right Source** means ensuring a balanced supply of essential plant nutrients including granular fertilizers, liquid fertilizers and/or manures.

The **Right Rate** is applying just enough fertilizer to meet the needs of the plant while accounting for the nutrients already in the soil.

The **Right Time** means applying fertilizer when the plant will get the most benefit and avoiding times when fertilizer can be lost to the environment.

The **Right Place** is where the plants can easily use it and where it is less likely to be lost to the water or air.

4R Nutrient Stewardship BMPs must be customized to fit each farm's unique climatic, soil, cropping and operational conditions. This is achieved, as needed, with professional input from recognized and qualified specialists (e.g. CCAs, 4R NMS-CCAs, and QNMPs) who work with farmers to assess their situations and develop management plans.

Continuous improvement can be achieved by employing measures that assess the economic, social and environmental performance of BMPs utilized in implementing the Program in Ontario. Adjustments to practices, as well as research and education / awareness programming can be made to further enhance sustainability.



## SCHEDULE 2:

### Financial Commitment of the Parties

This MOC does not impose any legally binding financial obligations on the Parties, but in recognition of the resources required to launch the Program in Ontario, the Parties to this MOC have agreed to try and meet the following commitments.

### Industry Commitments

- a. Fertilizer Canada will provide financial support of up to \$50,000 per year for three years from the commencement date in Section 6 up until December 31, 2021 to enable pursuit of this MOC's objectives. Fertilizer Canada will contract with and make payments directly to service providers.
- b. OABA will provide financial support of up to \$37,500 per year for three years from the commencement date in Section 6 up until December 31, 2021 to enable pursuit of this MOC's objectives.

### Government of Ontario Commitments:

- a. OMAFRA will provide technical support in the development and implementation of the Program. The nature and extent of such support will be determined by OMAFRA, in its sole and absolute discretion.
- b. OMAFRA will consider funding requests on a project by project basis to support the Program following completion of an implementation strategy by the Committee.

### Grower Organization Commitments:

- a. GFO will provide financial support of up to \$25,000 per year for three years from the commencement date in Section 6 up until December 31, 2021 to enable pursuit of this MOC's objectives.
- b. OFA will provide financial support of up to \$10,000 per year for three years from the commencement date in Section 6 up until December 31, 2021 to enable pursuit of this MOC's objectives.
- c. CFFO will provide financial support of up to \$5,000 per year for three years from the commencement date in Section 6 up until December 31, 2021 to enable pursuit of this MOC's objectives.

