

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

**THIS MEMORANDUM OF COOPERATION** is effective as of the 1st day of January, 2022.

**BETWEEN: FERTILIZER CANADA**

(hereinafter referred to as “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 and 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*® Certification program (the “Program”). The Program is unique to Ontario and works to verify 4R acres in Ontario; 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 implement mechanisms to assist in the pursuit of common objectives of the Parties with respect to soil health, climate smart agriculture, nutrient management and water quality.

## 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 incorrect application of nutrients according to crop requirements is not desirable, and can increase nitrous oxide emissions and excess nutrient loss to nearby watercourses.
- 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 to improve nutrient use efficiency on Ontario’s cropland, reduce nutrient loading to water bodies and reduce agricultural greenhouse gases (GHGs), with a focus on nitrous oxide emissions.
- c. The Parties recognize 4R Nutrient Stewardship Certification, which works to verify 4R acres through Nutrient Service Providers undergoing a Third-Party Audit.
- d. The Parties recognize that crop nutrient best management practices (BMPs) must generally 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.
- e. 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.

- f. 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.
- g. The Parties understand that nutrient stewardship planning for crop production is an essential component of environmental farm planning.

The Parties recognize that other steps may also be needed to achieve sustainable soil health, crop nutrition, protect water quality and reduce GHGs.

#### 4. COMMITMENTS OF THE PARTIES

##### Financial Commitment of the Parties

This MOC does not impose any legally binding financial obligations or any other legally binding obligation 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.

##### Commitments of all Parties

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

- a. The Parties are committed to working cooperatively with the agricultural sector towards the increased implementation of 4R Stewardship on Ontario cropland.
- 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 Program, where possible.
- d. The Parties are committed to advancing the measurement of the impacts of these efforts on the economy, environment and society through established components of the Program (such as 4R Ontario Certification and the Fertilizer Use Survey), and to provide appropriate metrics to measure adoption and impact of the program.
- e. The Parties will make in-kind contributions toward this effort as detailed in Section 4 (2) of 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. This will be facilitated through the 4R Ontario Stewardship Steering Committee (the “Committee”) and working groups as required.

- g. All Parties agree to support improvements, 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 provide technical support from an industry perspective in the implementation of the 4R program.
- b. Fertilizer Canada and OABA will continue to promote the Program in Ontario, to demonstrate the tangible commitment being made by the agricultural industry to environmental sustainability.
- c. Fertilizer Canada and OABA will work to incorporate new BMPs and standards when applicable into the Program in order to ensure the most up-to-date, science-based practices for reduced nutrient loss and GHG emission reductions.
- d. Fertilizer Canada will facilitate and provide annual funding to support the Fertilizer Use Survey to identify key practices and indicators for continued adoption of 4R Nutrient Stewardship.
- e. Fertilizer Canada and OABA will provide annual funding to support the administration and implementation of the Program in Ontario.
  - l. Fertilizer Canada will provide financial support of up to \$30,000 per year for three years from the commencement date in Section 6 up until December 31, 2024 to enable pursuit of this MOC’s objectives.



- II. OABA 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, 2024 to enable pursuit of this MOC's objectives.
- f. Fertilizer Canada and OABA will support and promote the 4R Nutrient Management Specialty (NMS) for Certified Crop Advisors in Ontario.

**Government of Ontario Commitments:**

- a. OMAFRA will provide 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, CFFO, and OFA will provide technical support from a grower perspective in the implementation of the Program
- b. GFO, OFA and CFFO will engage membership and provide support for the Program knowledge transfer for Ontario growers.
- c. 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.
- g. GFO, OFA and CFFO will consider funding requests on a project by project basis related to the Program.
  - I. GFO will provide financial support of up to \$30,000 per year for three years from the commencement date in Section 6 up until December 31, 2024 to enable pursuit of this MOC's objectives. GFO will also provide \$10,000 per year in-kind to support Ontario Grower Communications.
  - II. 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, 2024 to enable pursuit of this MOC's objectives.
  - III. 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, 2024 to enable pursuit of this MOC's objectives.

**5. IMPLEMENTATION OF MOC**

Building upon two previous Ontario 4R MOC agreements, the Parties will continue to implement the established Committee. The Committee will be comprised of up to three



members from each of the Parties and other stakeholders/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 the following:

- Support the continued implementation and adaptation of the Program in Ontario, in cooperation with 4R Certified Retailers to help farmers complete 4R Nutrient Stewardship Management Plans and provide 4R consistent agronomic advice;
- Support the communication efforts of the Program in Ontario. Which could include: to provide meaningful input and discussion on Ontario-focused advertisements and articles and amplifying these efforts through individual communications teams and channels;
- Support and promote the 4R NMS for Certified Crop Advisors in Ontario; Explore opportunities to expand the reach of the Program to other commodities and crop rotations (example horticulture and livestock);
- Continue to assess and review market access opportunities that the Program can play a role in (such as, the 4R Climate Smart Protocol, Field to Market, etc.);
- Continue to support research to increase knowledge of BMP effectiveness, explore new BMPs, and to improve measurement of environmental outcomes; and continue to collect data that assess the implementation of the Program to improve 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, 2022, and end on the 31st day of December, 2024.

## 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 in the *Nutrient Management Act, 2002* or a regulation made under that Act or any other applicable legislation.



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.

**IN WITNESS WHEREOF** the parties thereto have executed this Memorandum of Cooperation as of the day and year set out below their names.

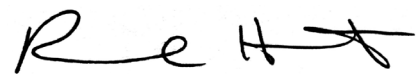
### FERTILIZER CANADA



Karen Proud, President and Chief Executive Officer

Date: January 19, 2022

### ONTARIO AGRI BUSINESS ASSOCIATION



Russel Hurst, Executive Director

Date: January 27, 2022

### GRAIN FARMERS OF ONTARIO



Crosby Devitt, Chief Executive Officer  
Date: January 20, 2022

### ONTARIO FEDERATION OF AGRICULTURE



Peggy Brekvel, President

Date: February 14, 2022



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

**CHRISTIAN FARMERS FEDERATION OF ONTARIO**



\_\_\_\_\_  
Ed Scharringa, President

Date: \_\_\_\_\_

\_\_\_\_\_  
The Honourable Lisa Thompson

Minister

Date: January 17, 2022





## 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 year, even when other parts of Ontario's economy experienced a downturn due to the COVID-19 pandemic, Ontario's agri-food sector continues to remain strong.

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.

Ontario's 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. Through the recognition of this since 2016, Ontario has established itself as a leader across Canada and is the only province to successfully adopt the Program.

The Program includes the implementation of effective 4R Nutrient Stewardship BMPs and the agri-retailer 4R Nutrient Stewardship Certification Program, and will support OMAFRA and industry commitments under the Canada-Ontario Lake Erie Action Plan to reduce excess nutrient runoff to the Great Lakes basin, the Ontario Soil Health Conservation Strategy and towards National targets for reducing GHGs. Under the Previous Agreement, the Program was launched in Ontario and worked to make a positive impact across Ontario.

**Climate smart agriculture** - 4R Nutrient Stewardship is an innovative solution to support the federal government's agricultural goals of reducing GHG emissions from on-farm fertilizer use by 30% and increasing the efficiency of agricultural practices for enhanced food production. Proactive efforts made by Canada's fertilizer industry will support Canada's targets, and help position Canada's agriculture sector as a leader on the international stage in climate action.

### 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 into air and water.

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 nutrients to meet the needs of the plant while accounting for the nutrients already in the soil.

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

The **Right Place** is applying nutrients in field locations where most needed and where plants can easily access, making nutrients 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. Management plans can be developed based on a set of 4R Guidance tables which outline recommended BMPs for various crop rotations. This is further administered in Ontario through the 4R Certification which required certified retailers to submit their 4R acres to Fertilizer Canada annually.

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.

The 4R program in Ontario ran through the *Ontario 4R Certification Program*. This is a voluntary program for Nutrient Service Providers, which include agricultural retailers, agricultural service providers, and certified professionals. The 4R Certification program translates 4R Nutrient Stewardship into a set of auditable criteria. To become 4R Certified, a Nutrient Service Provider must complete a third-party audit every two years to maintain certification. The Agri-Chemical Warehouse Standards Association (AWSA) is the third-party audit body conducting the 4R Certification Program audits in Canada.