

4R NUTRIENT STEWARDSHIP MEMORANDUM OF UNDERSTANDING

February 2019

THIS MEMORANDUM OF UNDERSTANDING made this 20th day of February 2019.

BETWEEN: **GOVERNMENT OF PRINCE EDWARD ISLAND**, as represented by the Minister of Agriculture and Fisheries

AND: **GOVERNMENT OF PRINCE EDWARD ISLAND**, as represented by the Minister of Communities, Land and Environment

(hereinafter collectively referred to as the "Government")

AND: **FERTILIZER CANADA** a corporation incorporated under Part II of the *Canadian Corporations Act*, having its head office located at Ottawa, Ontario.

AND: **KENSINGTON NORTH WATERSHEDS ASSOCIATION LTD.** a nonprofit corporation incorporated under Part II of the *Companies Act R.S.P.E.I. 1988, Cap. C-14*, having its head office located at Kensington, Prince Edward Island.

(hereinafter referred to as the "KNWSA")

AND: **PRINCE EDWARD ISLAND FEDERATION OF AGRICULTURE** a nonprofit corporation incorporated under Part II of the *Companies Act R.S.P.E.I. 1988, Cap. C-14*, having its head office located at Charlottetown, Prince Edward Island.

(hereinafter referred to as the "PEIFA")

AND: **PRINCE EDWARD ISLAND POTATO BOARD** a commodity board established under the *Natural Products Marketing Act R.S.P.E.I. 1988, Cap. N-3*, having its head office located at Charlottetown, Prince Edward Island.

(hereinafter referred to as the "PEIPB")

WHEREAS the parties to this memorandum of understanding wish to voluntarily link the Province of Prince Edward Island's (PEI) objectives for environmental performance with the nutrient stewardship programming developed by Canada's fertilizer industry;

AND WHEREAS the parties agree that the *Right Source @ Right Rate, Right Time, Right Place®* approach to nutrient stewardship (commonly referred to as *4R Nutrient*



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1 of 7



Stewardship), established by Fertilizer Canada, provides a balanced nutrient framework to help meet the common goal of sustainability.

THEREFORE the parties agree to establish a formal arrangement with the terms and conditions of their relationship as follows:

1) **Background**

Commitment to Sustainability

Canada's fertilizer industry is committed to achieving sustainability in partnership with its stakeholders. The fertilizer industry continues to strengthen environmental stewardship by supporting the implementation of Beneficial Management Practices (BMPs) by farmers. The fertilizer industry is also committed to promoting the measurement of the impacts of these efforts on the economy, society, and on the environment.

The Right Source @ Right Rate, Right Time, Right Place[®] Sustainable Nutrient Stewardship System

The fertilizer industry has established the *Right Source @ Right Rate, Right Time, Right Place[®]* (4R) nutrient management system in cooperation with government, researchers, customers, and the public. This approach ensures that nutrients are applied using the right source at the right rate, time and place through the adoption of BMPs by producers to achieve economic, social and environmental sustainability. It recognizes that 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 Certified Crop Advisers (CCAs), Professional Agrologists (P.Ags), Qualified Nutrient Management Planners and government extension specialists who work with farmers to assess their situations and develop management plans.

Continuous improvement can be achieved by employing measures that assess the impacts of source, rate, time and place fertilizer BMPs on the economic, social and environmental performance of nutrient management. Based on this feedback, adjustments to practices, policies, as well as research and extension programming can then be made to further enhance sustainability. While significant work has been done to establish science-based measures, there is much progress yet to be made in this regard.

The PEIFA and the PEIPB have both played a leadership role in promoting environmental stewardship for the Island's farmers and are important partners in the development of voluntary nutrient management planning in PEI.

The Prince Edward Island Approach

We recognize the need to find solutions to reduce nitrate water contamination in PEI. These concerns were raised by The Commission on Nitrates in Groundwater (2007) which contained 30 recommendations that dealt with all aspects of nitrate management where the application of crop nutrients is one source of nitrates. The Water Act, passed in the legislature in the fall of 2017, also demonstrates the Province's commitment to protecting the Island's water resources and the ecosystems that support them. Therefore, an



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2 of 7



important component in protecting PEI's drinking water sources is sustainable nutrient management planning.

Community based watershed groups are important partners for those who wish to maintain and improve the quality of PEI's water. PEI receives 100 per cent of its drinking water from groundwater, which makes it unique in comparison to other regions. These watershed groups recognize the important role that agriculture holds in the local economy and culture, and gladly work with the agricultural community on the common goal of maintaining and improving water quality and access.

The KNWSA is situated in an agricultural area on the north shore of PEI. Part of their mandate is to work with farmers and landowners on watershed issues. The proper use of fertilizer is imperative for clean water in watersheds with a large percentage of land use in field crop agriculture. KNWSA is one of 24 active watershed groups on PEI.

Managing crop nutrients properly offers both economic and environmental benefits to producers and to the rest of society. The efficient use of nutrients from commercial fertilizers, manure or other sources reduces input costs for crop production and minimizes the risk of nutrient losses to ground and surface water sources.

4R Nutrient Stewardship provides an understanding of how various crop nutrients behave in the landscape, how they are utilized by crops and how to prevent their loss into the environment. Understanding which soils pose a risk of nutrient loss can assist agricultural producers in managing nutrients more efficiently and in protecting the environment. Adjustments in the crop nutrient source and application rate, timing, and placement method may greatly reduce the risk of nutrient losses.

2) Principles:

- a) The parties herein acknowledge that crop nutrient applications are essential to the economic sustainability of growers, however the application of nutrients in excess of crop requirements is not desirable.
- b) The parties herein recognize that crop nutrient management sustainability can be achieved through management of crop intensity and the adoption of farm specific BMPs that follow the 4R Nutrient Stewardship System.
- c) The parties herein recognize that crop nutrient BMPs must be science-based and that a variety of BMPs may be selected to deliver any nutrient source at the right rate, time or placement.
- d) The parties herein understand that economic, social, and environmental performance improvements must be made in balance to obtain sustainability in crop nutrient management planning.
- e) The parties herein recognize the important role of trained professionals (i.e., Certified Crop Advisers (CCAs), Professional Agrologists, Qualified Nutrient Management Planners and government extension specialists) in the development and implementation of sustainable nutrient management programs for PEI farmers.

- f) The parties herein understand the value of measurement to 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 PEI farmers.
- g) The parties herein agree that PEI's farmers as represented by the PEIFA and the PEIPB are important to the success of this Memorandum of Understanding.
- h) The parties herein agree that the KNWSA is also an important partner to the success of this Memorandum of Understanding. Their support of this agreement paves the way for future participation of other like-minded watershed groups.
- i) The parties herein understand that the scientific research community is critical to the credibility and continuous improvement of economic, social, and environmental performance of nutrient management.
- j) The parties herein recognize the role that the private sector plays in the effective development and extension of crop nutrient BMPs by PEI's farmers.
- k) The parties herein understand that nutrient management planning for crop production is an essential component of environmental farm planning.

3) MOU Action Items:

Action items under this Memorandum of Understanding include the following activities:

- a) The parties agree to work in partnership to promote the adoption of nutrient management plans based on the *Right Source @ Right Rate, Right Time, Right Place*[®] (4R) Nutrient Stewardship Principles.
- b) Fertilizer Canada will provide financial support of \$20,000 per year for three years from the date of signing up until December 31, 2021 to enable pursuit of this MOU's objectives. Fertilizer Canada will contract with and make payments directly to service providers. Fertilizer Canada will provide this financial support at its discretion subject to Fertilizer Canada being satisfied that the purposes of this MOU are being carried out consistent with the 4R Nutrient Stewardship Principles. The parties will make in-kind contributions toward this effort. Fertilizer Canada is the only party to the agreement making a financial commitment. Any financial commitments from other parties would be completely voluntary.
- c) This partnership will jointly establish a 4R Implementation Committee which will be the advisory committee to implement this MOU. This Committee will be comprised of members from the above five listed parties. Other representatives can be invited to join the Committee upon the approval of the parties. The chair of this Committee and its members will be mutually agreed on by all parties. This partnership will jointly:



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4 of 7



- i) provide 4R nutrient management testing and accreditation for CCAs, P.Ags, Qualified Nutrient Management Planners and government extension specialists;
 - ii) support CCAs, P.Ags, Qualified Nutrient Management Planners and government extension specialists who provide 4R Nutrient Stewardship planning services to PEI's farmers, including training and workshops;
 - iii) work to measure farmer adoption of BMPs within the performance areas of the 4Rs by collecting fertilizer management information from growers; and
 - iv) ensure public education on the benefits of nutrient management through communications to stakeholder groups, growers, government and the public.
- d) The parties will work with stakeholders to establish appropriate metrics for the adoption of 4R Nutrient Stewardship Systems.
- e) The parties agree to develop effective on-going and long-term monitoring of the effectiveness of 4R Nutrient Stewardship Systems.

4) Term of Agreement

Any party may withdraw from this agreement for any reason with 30 days written notice. Fertilizer Canada will have the right to reassess its contractual obligations with the withdrawal of any party.

The term of this Memorandum of Understanding shall commence on the 31st day of December 2018, and end on the 31st day of December, 2021.



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5 of 7



Dated: Feb. 20 / 19

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

SIGNED, SEALED & DELIVERED
in the presence of:

[Signature]

GOVERNMENT OF PRINCE EDWARD ISLAND as represented by the Minister of Agriculture and Fisheries

[Signature]
Hon. Robert Henderson

SIGNED, SEALED & DELIVERED
in the presence of:

[Signature]

GOVERNMENT OF PRINCE EDWARD ISLAND as represented by the Minister of Communities, Land and Environment

[Signature]
Hon. Richard Brown

SIGNED, SEALED & DELIVERED
in the presence of:

[Signature]

FERTILIZER CANADA as represented by the Vice President, Industry Reputation

[Signature]
Catherine King

SIGNED, SEALED & DELIVERED
in the presence of:

[Signature]

KENSINGTON NORTH WATERSHEDS ASSOCIATION LTD.

[Signature]
Amber MacRae, President

SIGNED, SEALED & DELIVERED
in the presence of:

[Signature]

PRINCE EDWARD ISLAND FEDERATION OF AGRICULTURE

[Signature]
David Mol, PEIFA President

SIGNED, SEALED & DELIVERED
in the presence of:

[Signature]

PRINCE EDWARD ISLAND POTATO BOARD

[Signature]
Jason Hayden, Chairperson

