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## **Re: Options for a Federal GHG Offset System**

On behalf of Fertilizer Canada, and our members, we welcome the opportunity to respond to the Federal Government's Discussion Paper on options for a Federal GHG Offset System.

Fertilizer Canada represents the manufacturers, wholesalers and retail distributors of nitrogen, phosphate, potash and sulphur fertilizers – the backbone of Canada's agri-food economy. Responsible for half of the world's current food production, fertilizer is fundamental to the future of agriculture and farmers' ability to feed a growing global population.

As the world seeks to sustainably grow food from a decreasing land base, farmers will rely on fertilizer to increase production efficiency while conserving our soil, water, and air. To meet the challenge, farmers will require more than just new and innovative technologies; they will require a framework for understanding and implementing the core principles and practices of sustainable agriculture.

4R Nutrient Stewardship has been designed for this purpose. For more than a decade, Fertilizer Canada has worked with Canadian farmers and the fertilizer industry to promote 4R Nutrient Stewardship - a science-based approach to fertilizer management that involves applying the Right Source @ Right Rate, Right Time, Right Place ®. Use of the 4Rs optimizes plant nutrient uptake, maximizes yield and increases profitability, while also minimizing fertilizer runoff, leaching and nitrous oxide emissions.

### **The 4R Climate Smart Protocol**

The 4R Climate Smart Protocol is a science-based protocol for improving nitrogen management in cropping systems and estimating the nitrous oxide reduction associated with better nitrogen management based on 4R Nutrient Stewardship best practices. It is a robust protocol designed to meet international standards for estimation and verification of carbon offsets but is simple in concept and is driven by data that producers are either already collecting or are interested in collecting to improve their overall farm management system.

On behalf of our members, Fertilizer Canada has led and continues to support the development of the 4R Climate Smart Protocol as a tool to help ensure the economically efficient and environmentally responsible use of fertilizer. The protocol was developed using a consensus approach with input and review from Canada's top scientists in GHG emissions and abatement from cropping systems as well as leading agronomists from government and industry.

As the 4R Climate Smart Protocol uses a modification of Canada's internationally accepted and peer reviewed Tier II inventory method to estimate nitrous oxide emissions at the farm level, it is readily applicable as a tool for improving nitrogen management and estimating on-farm

emissions from cropping systems throughout Canada. In addition, as an international framework, the 4R Climate Smart Protocol can be adapted and implemented globally and could therefore be used in an international market.

Our models demonstrate that with increased implementation of 4R Nutrient Stewardship and the 4R Climate Smart Protocol, end-users of fertilizer in Western Canada could reduce total GHG emissions by 2-3 megatonnes of CO<sub>2</sub>e, annually; increased adoption across Canada poses even greater rewards. In addition, users would increase revenue per acre, with the average crop value of a 4R demonstration farm increasing by \$87 due to better crop yield and quality. Overall, this system will bring Canada closer to its Paris Climate Goals, increase profits for Canadian growers, and help protect Canada's food supply.

Currently, we are in discussions with the governments of Saskatchewan and Manitoba to incorporate the 4R Climate Smart Protocol into their provincial offset systems. In addition, 4R Nutrient Stewardship, from which the protocol is derived, has been specifically referenced by:

- The *Made-in-Saskatchewan Climate Change Strategy*, which sets a target of 25% of cropping acres under 4R Nutrient Stewardship by 2025;
- The *Conservative Party of Canada's Climate Change Plan*;
- A *Carbon Savings Account for Manitoba* that highlights the 4R Climate-Smart Strategy as a recommended solution to support achieving the 2018-2022 GHG emission reduction goals in Manitoba;
- The *Made-in-Ontario Plan* and *Great Lakes 2030 Report*; and
- FAO's *Code of Conduct for the Management of Fertilizers*, which recognizes the important role fertilizer plays in modern agriculture and cites 4R and the IPNI 4R Manual

## Recommendations

Overall, we believe that the proposed elements of the Federal GHG Offset System adequately balance the need to protect the environment with the economic interests of industry. However, Fertilizer Canada would like to take this opportunity to provide more information of how various sections of the system align with our industry-led programming and ask for further clarity on certain aspects of the system, such as additionality.

Developing and implementing the Nitrous Oxide Emission Reduction Protocol (NERP) in Alberta provided several lessons and, therefore, we would like to caution against any criteria that could inadvertently make it more difficult for fertilizer end-users, such as farmers, to use the 4R Climate Smart Protocol to achieve GHG offset credits.

- **Additionality and the 4R Climate Smart Protocol.** The Discussion Paper has indicated that protocols will be developed for categories of projects before they are able to generate offset credits. Under a federal system, any project will need to be 'additional', and as such Fertilizer Canada would like to seek clarity on this criterion. It states that "The GHG reduction technology or project activity must not be in common use or be considered common practice." It also indicates that the additionality of a project will differ based on jurisdictions within Canada, and that the proposed system would reflect these regional differences. As such, the current description of additionality is overly broad. It will needlessly punish farmers and create a barrier to 4R implementation based on geographical location. It is recommended that additionality and uniqueness focus on preventing the duplication of credits, rather than on the commonality of an activity.

Related to additionality and uniqueness, Fertilizer Canada would also like clarification on the following questions:

1. What will the definition of common use or common practice be?
2. What will occur to registered projects if a practice becomes common?
3. As an adaptable system, 4R Nutrient Stewardship has varying levels of implementation available to farmers, with correspondingly greater emission reductions. Would these varying levels contribute to the additionality of the 4R Climate Smart Protocol, and the level to which it is common use across the country?

- **Adoption of the 4R Climate Smart Protocol.** Adoption of this protocol to produce tangible reductions in agricultural emissions can assist the Government of Canada in achieving its emissions reductions goals. We would encourage the federal government to incorporate the 4R Climate Smart Protocol into their system, and to create an adaptable system that could one day allow for the use of internationally generated offset credits.
- **Invitations to Technical Advisory Teams to inform protocol development must be transparent and fair for all stakeholders.** This will ensure that impacted stakeholders are not missed in the development and adoption process of Federal offset protocols.
- **Consider emission reduction activities for protocols outside of Canada's National Inventory Report.** Utilizing the quantification methodologies and activities used in the National Inventory Report (NIR) is important for a multitude of reasons (fungibility, best available science, etc.). However, adhering strictly to the Government of Canada's criteria in Appendix B would also limit a host of offset protocol opportunities. This is the paradox between ensuring offset activities are additional and not business as usual and wanting them to be captured in the NIR for Article 6 purposes. Innovative activities likely are not going to be captured in the Inventory due to its accounting requirements such as the need to track activities from 1990 onwards. Some of the innovative activities for the Agriculture sector, like 4R Nutrient Stewardship, are not reflected in the inventory. We recommend that the federal offset program develop a vetting process to consider protocols outside of the NIR, or that the Federal Government include the protocol in the NIR.
- **Development of the Offset Tracking System should be supportive of expedited implementation of the offsets market.** The tracking system procedures should align with the Output-Based Pricing System (OBPS) deadlines and reporting requirements. Timing of offset credit transfers should be clear and predictable to facilitate market transactions to meet compliance requirements.
- **Allow for the generation of international offset credits.** Article 6 of the Paris Agreement provides a method for signatories to develop an international system for the creation and sale of offset credits. Fertilizer Canada, through a partnership with Global Affairs Canada and the Cooperative Foundation have recently begun a project to encourage uptake and implementation of 4R Nutrient Stewardship in Ethiopia, Ghana, and Senegal. As such, any Federal GHG Offset System should be sufficiently flexible to incorporate the sale and use of internationally generated credits at a future date. This will help prevent carbon leakage, decrease international GHG emissions, and bring countries closer to the Paris Climate Goals. In addition, it would provide international

farmers with a new revenue stream. As the Federal Government has stated, GHG emissions and climate change do not respect borders; countries must co-operate to solve these challenges.

- **Verification should be a critical component of the any offset program.** It will be prudent that the offset system contains provisions for third-party verification, of which the accreditation of verifiers is recommended, especially during the offset program's development. It is also recommended that verification of on-farm, agricultural GHG emission reduction offsets be done by a team which includes Professional Agrologists.
- **An aggregator is required.** For smaller tonne land-based offsets, aggregation is a necessary part of managing transaction costs and increasing the viability of offset projects, which has been demonstrated in many markets. It is the aggregator who takes on the risk and liability of meeting all the requirements of the offset system at hand; developing robust data management and record collection systems to meet verification and auditing requirements of projects. With a well-designed framework, the beneficial role of aggregators can be realized, and this has been recognized in other jurisdictions. For example, Alberta has built in safeguard language in protocols to ensure the balance of responsibilities between the farmer and aggregator exists.
- **Government audits take place in the first year of the project.** If the government is going to reserve the right to audit verified projects, we recommend that the audit be completed in the first year of a multi-year project for consistency. Alberta's system can serve as a lesson: the deployment of government audits was not well planned and continues to cause consternation to Alberta's carbon market to this day.
- **Development and adoption of a dynamic baseline.** As baselines are closely related to additionality, Fertilizer Canada supports the development of baselines intended to consider what the GHG emissions or reductions would have been if no offset project was implemented. Having said that, there may be specific project types where a project-specific baseline may be needed because of a lack of regional data and information. Fertilizer Canada recommends consideration of ecodistrict baselines developed with Crop Insurance or other data sources as a practical approach to baseline development for on-farm yield data.
- **Sign off by landowner transferring credits to farmer.** In the case of projects that only have emission reductions (i.e. N<sub>2</sub>O reductions from soils) the person taking the action (land manager/lessee or the landowner) is the 'owner' of the reduction. As carbon is not being stored in the soil and the emission reductions take place the year in which they occurred, this ownership eliminates possible double counting and reversals.
- **Protocol should be on a field by field basis.** For N<sub>2</sub>O reductions from soils we recommend that deviations in fields that do not meet the protocol should result in the field being excluded from the protocol for that season, not the whole farm.
- **Credit limits should not be set.** Offset credit limits for regulated parties which restrict the usage of credits for compliance with the intent to generate more predictable market behaviour can unintentionally devalue offset credits and disincentivize participation in offset protocols.

- **An umbrella approach for provincial alignment.** For a cross-Canada protocol, the umbrella approach would apply to the provinces that are geographically relevant because of either (a) differing regulations that would affect additionality; or (b) differing soil-agroclimatic zones for land-based/livestock based project activities. By having different appendices that would apply in each jurisdiction for accounting and policy considerations, the 4R Climate Smart protocol would be national yet site specific.

### **Concluding Remarks**

Fertilizer Canada remains ready to work with the Federal Government to help take advantage of the advancements that have been made by the Canadian fertilizer sector. We encourage and welcome continued consultation with industry to ensure the successful development of a Federal GHG Offset System and agricultural protocol, which should include the 4R Climate Smart Protocol.

Sincerely,

A handwritten signature in black ink, appearing to read 'Cotton', written in a cursive style.

Cassandra Cotton

Vice President, Policy & Programs