Western Canadian Wheat Growers

August 26, 2022

Government of Canada
Agriculture and Agri-Food Canada
1341 Baseline Road Ottawa, ON K1A 0C5

Re: **Discussion Document – Reducing emissions arising from the application of fertilizer in Canada's agriculture sector**

By email: aafc.fertilizer-engrais.aac@agr.gc.ca

Dear Sir/Madam;

The Western Canadian Wheat Growers Association is a farm advocacy organization dedicated to developing agriculture policy solutions that strengthen the profitability and sustainability of farming and the agricultural industry. We are a member-based, not-for-profit association, not relying on grain checkoff funding. Our members grow grain, pulse and oilseed crops across millions of acres. Our Board of Directors are a group of committed and passionate farmers, freely giving their time and energy to ensure a prosperous future for the agriculture industry and those connected to it

Since the federal government's announcement in December 2020 for a 30% reduction of GHG emissions arising from the use of fertilizer and increased carbon sequestration, there has been a great deal of uncertainty across the agriculture industry. This uncertainty has been the direct result of a lack of clarity in the governments proposal and flaws in its emission measurement methodology, with no consultation across either the grain, pulse and oilseeds industry or the fertilizer industry.

Relative to this submission, we agree with Deputy Prime Minister Chrystia Freeland's August 25, 2022 statement that, "…I do not know a single farmer who uses more fertilizer than he or she absolutely needs to. Fertilizer is expensive."

The Wheat Growers is pleased to make this submission and respond to any further questions that may arise out of the review.

Yours truly,

Gunter Jochum
President

Daryl Fransoo
Chair

Jim Wickett
Secretary-Treasurer

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Submission Regarding Proposed Reductions in Canadian Grain and Oilseed Fertilizer Emissions
August 26, 2022

The premise and goal of maximizing fertilizer efficiency and increased carbon sequestering is not new to grain, pulse and oilseed farmers. Farmers have been and continue to be strong stewards of the land. They have chosen the farming lifestyle because they care about the strong connection to the land. In most cases, the farm is by led by a third, fourth or even fifth generation family member. Succession planning with the next generations is key and therefore ensuring agricultural stewardship and sustainability is paramount in their planning.

General Discussion

Fertilizer is expensive and farmers do not spread it without a plan in place or use it haphazardly. The less we use, the lower our overall input cost is. On June 29, 2021, the Wheat Growers submitted a letter to Minister Bibeau in support of the 4R Nutrient Stewardship Program. (https://wheatgrowers.ca/wp-content/uploads/Bibeau-Fertlizer-Emissions-Reduction-June-29-2021.pdf). To date, we have not received a reply from the Minister.

The 4R program puts the Right Fertilizer, at the Right Rate, in the Right Place, at the Right Time. Using this program has already resulted in improvements in our necessary fertilizer use.

4R Nutrient Stewardship is an industry-led, science-based program that helps ensure the competitiveness of Canadian producers and processors and provides the tools and resources they need to continue to innovate and capitalize on emerging market opportunities. 4R Nutrient Stewardship is exactly the sound science base needed to advance agricultural producers to remain both environmentally responsible and competitive.

One of the key approaches to increased grain, pulse and oilseed farm success has been the increased use of one or more agronomists in order to ensure that our soil, water, seed, fertilizer and other inputs are synchronized for maximum efficiency. Our agronomists soil test, help plan our crop rotations, advise on nutrient management and chemical applications for herbicide and pesticide use. With so much to consider, these decisions are best left in the hands of the individual local farmer.

For decades we have used crop rotations that benefit the soil biodiversity of our land. Crops such as lentils, peas and alfalfa all naturally return nitrogen to the soil. Many farmers are using livestock manure to augment their input needs.

The government needs to recognize the many technological advances that farmers have put in place over the past several decades. If anything, grain, pulse and oilseed farmers are well ahead of most industries in lowering our environmental footprint.

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Elected officials and Ministerial officials are invited and welcome to visit our farms in order to understand the level of data and technology that we apply to our day-to-day operations. The cabs of our tractors, combines, sprayers and other equipment are arrayed with iPads, readouts and data-management tools, all saved to the cloud and accumulated year over year.

This accumulated data is synthesized and analyzed to minimize our inputs and maximize our yields across every acre of our farm. The use of this data combined with modern farming practices, such as variable rate seeding and spraying, sectional control, GPS navigation, as well as field mapping is used to minimize the use of fuel, fertilizer and other crop protection products.

All this custom data management results in better soil, increased crop production and overall long-term benefits to both the land and the agricultural economy.

GPS navigation ensures that we reduce fuel consumption and minimize the amount of time that we are on the field. Whenever possible, we prepare the soil, seed and apply fertilizer in one sweep. If further inputs are needed, the new equipment allows us to spray in sweeps up to 100 feet wide.

Farmers have been early adopters of advances in plant science and equipment. Our forefathers would marvel at the advances in plant and equipment technology that we use today. Undoubtedly, new developments will arise going forward that will further assist in all aspects of agriculture, including the reduction in the use of fertilizer, but time is needed to achieve this success.

Government needs to work with farmers and industry to assist and support these developments. As these developments take time to bring online and be implemented, it is imperative that the Sustainable Canadian Agriculture Program (SCAP) not be linked to agriculture funding.

The government emission reduction target also fails to account for the carbon sequestering that prairie grain, pulse and oilseed farmers have been achieving during the past several decades. Farmers use EEF fertilizers and the vast majority practice zero-tillage or minimum-tillage methods, which maintains the organic material at the surface of the field ensuring that the carbon is sequestered, moisture is retained, wind erosion is minimized and that the soil warms quicker in spring for seeding.

We note that the federal government has committed to increase Canadian agriculture exports from $55B in 2015 to at least $85B by 2025. We fully support this and as farmers we are willing to tackle this ambitious and important challenge. This 55% increase is attainable; however, it is unlikely to be achieved by the shackling of grain, pulse and oilseed farmers through the reduced use of fertilizer. Emissions can be reduced through ongoing advances in technology, however, a 30% reduction by 2030 would require an absolute reduction in fertilizer use. Given the present food security and inflation concerns here and around the world, any such fertilizer reduction would be a grievous policy mistake.

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Discussion Paper Response

There are several key points in the discussion paper to respond to:

- A reduction in fertilizer emissions cannot be the only factor to be considered. At risk is food security domestically and our export markets, as well as the economic stability of Canada's farming industry.

- We recognize that the production of food is responsible for some GHG emissions. It must also be recognized that agriculture for years has reduced its footprint and will provide further reductions as new practices and technology are available.

- If agriculture is responsible for approximately 10% of Canada's GHG emissions, using the NIR data, a 30% reduction of emissions from synthetic fertilizer will only result in a 0.3% decrease in Canadian emissions.

- The NIR tells us that our N efficiency in terms of N20 loss is 99.1% efficient vs N sold in Canada. It is questionable how much more efficient we can get. We are not losing much N to N20, from yield or dollars. This alone shows the efficiency at which prairie grain, pulse and oilseed farmers are operating and should be celebrated.

- Meeting the fertilizer emissions proposed reduction target could very well result in an increase in CO2 emitted per unit of output. This is because reducing fertilizer use, as would be required to meet the reduction target by 2030 will result in lower yields and yet the same field operations must be undertaken. The goal should be to reduce the carbon intensity per unit of output, not reduce the overall output.

- As the calculation for emissions is currently sales based, the reporting methodology will need to change. Current calculations do not take into account the 4R program and on-farm applications. Unfortunately, the 4R program is not incorporated into the NIR for estimating emissions

- While current emissions may have risen in recent years, food production and Ag GDP contribution also rose. The basic mass balance of agriculture is that if you are removing nutrients in the grain you export, they must be replaced. As stated earlier, a better measurement would be emissions per unit of output. Research confirms that with each bushel of wheat, nutrients are removed to the value of N-1.2lbs, P-.63lbs, K-.37lbs. To replenish the soil, we use crop rotation – including the natural replacement of N through lentils – and fertilizer. Without this replacement, the soil will deplete over time.

- This one-size-fits-all approach to agriculture policy is ill-founded. Our prairie winters are different than Eastern Canada, soil types and moisture vary, and the use of agronomics and no-till farming vary as well.

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- Greater measurement accuracy is required with the introduction of new fertilizer policies. How is this to be attained without further cost to the farmer? For example, should farmers be paid for their on-farm fertilization data like a carbon credit to lower estimated emissions?

Data Analysis

There are many organizations with greater resources able to do the analysis of full outputs and economic impact on farmers. We are in support of the detailed analysis undertaken by Fertilizer Canada: https://wheatgrowers.ca/wp-content/uploads/MNP-Economic-Report_Executive-Summary.pdf. Implementation of fertilizer reduction schemes to achieve emissions reductions will result in less grain to sell domestically and internationally and lower income at the farm gate.

Risk of Shortages

Canada produces approximately 12% of the world's wheat exports. We have rich farmland across our prairies that have been well cared for and will continue to produce exceptional amounts of high-grade grain, pulse and oilseeds.

The reduction of fertilizer emissions can only be achieved through incremental technology improvements and wholesale reductions in fertilizer. Incremental technology improvements have been constantly adopted by the industry for the past several decades. Wholesale reduction in fertilizer will only result in reduced crop sizes.

Our domestic food security is currently not at risk. However, there are many countries that will likely have food shortages if our grain is not available to them. Countries such as China, Morocco, Peru, Bangladesh, Nigeria, Colombia and others will suffer.

One only has to look at the disastrous outcomes in Sri Lanka that have resulted from a complete elimination of fertilizer. Food security has been shattered, the economy is in ruins and the government has been overthrown. Similar stories are currently playing out in the Netherlands, Germany, Italy and other Western European counties. This is not a scenario that should be considered for Canada.

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Summary

The prairie grain, pulse and oilseed farmers have done much to reduce the use of fertilizer and enhance the soil through technology and agronomy. The federal government would be best served to recognize the positive impact that these many changes and improvements have already had to reduce fertilizer GHG emissions. Forcing ill-thought through policy on to an industry that is already innovative and early adopters of new technology is short-sighted.

While a 30% reduction in fertilizer GHG emissions is a laudable goal, it is not achievable within 8 years without a significant cut in fertilizer use. The very real outcome of such a proposed policy change would result in reduced exports and food shortages in many countries, along with decreased domestic farm income levels, an increase in food inflation and loss of Canada's share of global grain markets. We consider this to be an unacceptable path forward.

We believe that a slowly implemented strategic approach that doesn't impact the production of food or the financial ability of the farmers to produce that food is a better approach.

We look forward to working with our farming colleagues, associations and governments in order to move together towards common goals together.

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