



FERTILIZER CANADA
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2017 FEDERAL BUDGET

Recommendations to the House of Commons

Standing Committee on Finance

Submission by Fertilizer Canada

August 2016



On behalf of Canada’s fertilizer industry, we welcome the opportunity to submit proposals to the House of Commons Standing Committee on Finance as it considers its recommendations for the upcoming federal budget.

Fertilizer Canada is an industry association representing manufacturers, wholesale and retail distributors of nitrogen, phosphate, potash and sulphur fertilizers used in the production of agricultural crops, residential lawns and gardens and recreational parklands.

Fertilizer keeps soils productive, accounting for roughly 50 per cent of food production, improving both the quantity and quality of food, fibre and fuel. To feed a projected world population of nine billion by 2050, food production must increase its per acre intensity by 70 per cent.

Canada’s \$12-billion fertilizer industry stands ready to meet that challenge. Saskatchewan is the world’s largest supplier of potash, accounting for 46 per cent of global trade. Additionally, Canada is home to the world’s largest fertilizer company and the world’s largest agri-retailer. These and all of our members’ contributions are vital to increasing crop production sustainably.

As the government considers measures to enable areas of Canada’s economy, Fertilizer Canada submits the following recommendations which will aid our industry’s growth and allow us to continue to help farmers feed the world:

- 1) **Help industries to promote and implement programs to protect the environment, such as 4R Nutrient Stewardship (Right Source @ Right Rate, Right Time, Right Place®)**
- 2) **Ensure greenhouse gas reduction policies are science-based and recognize competitiveness**
- 3) **Enable trade through the development of transportation infrastructure**

Fertilizer Facts

- Canada is the largest exporter of potash, accounting for 46% of global trade.
- In 2015, exports of fertilizer reached 80 countries and were worth \$7.9-billion.
- The United States is Canada’s largest export market for fertilizers, followed by Brazil, China, Indonesia and India.
- Canada’s potash industry exports nearly all product, while nitrogen manufacturers export approximately 60%.
- About 6% of all natural gas consumed in Canada is used to make fertilizer.



Recommendations:

- 1) Helping industries to promote and implement programs to protect the environment, such as 4R Nutrient Stewardship (Right Source @ Right Rate, Right Time, Right Place®)

To feed the world's growing population, more crops must be produced while available arable land is shrinking. Climate change makes this challenge all the more significant, as it requires adaptation in farming systems. Canada's fertilizer industry has prioritized Climate-Smart Agriculture as a way to sustainably ensure food security while minimizing the impact on the environment.

4R Nutrient Stewardship is an innovative, science-based approach to sustainable fertilizer application:

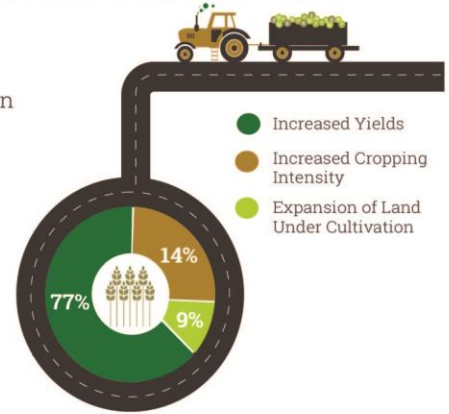
- The **Right Source** means ensuring a balanced supply of essential plant nutrients including granular or liquid fertilizers or manures.
- The **Right Rate** is applying just

The world's population is expanding & food production **must** rise



How do we accomplish this without a **massive** expansion of farmland?

77% of future growth in crop production is expected to come from increased yields - of which fertilizer is key.



Through sustainable actions we can **protect** our soil, water and air for society.



Fertilizer Canada works to empower farmers with the knowledge & resources they need to utilize the 4R Nutrient Stewardship framework



Economically, Environmentally, and Socially Sustainable Crop Production.

4R Nutrient Stewardship works to increase production and profitability for farmers while ensuring the future of the agricultural industry



SOURCE

Matches fertilizer type to crop needs.



RATE

Matches amount of fertilizer to crop needs.



TIME

Makes nutrients available when crops need them.



PLACE

Keeps nutrients where crops can use them.



enough fertilizer to meet the needs of the plant while accounting for 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 applying fertilizer where the plants can easily access fertilizer and where it is less likely to be lost to the water or air.

At the United Nations Conference on Climate Change (COP21), we shared how our industry can help government achieve reductions in greenhouse gas emissions from agricultural sources by implementing 4R Nutrient Stewardship (Right Source @ Right Rate, Right Time, Right Place®). Research demonstrates that 4R practices can reduce nitrous oxide emissions released during fertilizer application by 15 to 25 per cent.

Fertilizer Canada has worked with governments to promote 4R Nutrient Stewardship to farmers and homeowners through Memorandums of Understanding. With shared support from farm groups and environmental stakeholders, 4R Nutrient Stewardship is practiced through agreements in Alberta, Manitoba, Ontario, New Brunswick and Prince Edward Island. An agreement is also in development in Saskatchewan. While the federal government has endorsed 4R Nutrient Stewardship through the *Agricultural Greenhouse Gases Program* and under *Growing Forward II*, there are additional opportunities for partnership resulting in tangible reductions in greenhouse gas emissions.

To that end, our industry has also developed the Nitrous Oxide Emissions Reduction Protocol (NERP). The NERP develops saleable carbon credits for farmers who reduce on-farm greenhouse gas emissions using 4R Nutrient Stewardship practices. Currently used under Alberta's *Specified Gas Emitters Regulation*, the NERP could be used as an offset in any greenhouse gas reduction regime developed by the federal government or encouraged in provinces where regulation is pursued.

Similarly to nitrogen management, we recognize and encourage government support for sustainable phosphorus management to preserve our country's water. Fertilizer Canada is committed to working with stakeholders in Canada and the United States to reduce losses to Lake Erie and other vulnerable bodies. Protection of these water systems is the subject of our agreements on 4R Nutrient Stewardship with the governments of Ontario and Manitoba; and approach which has been endorsed by the International Joint Commission.

The principles underpinning 4R Nutrient Stewardship can be applied in any geographical location or farming system. Cost-effective and environmentally responsible soil management is critical to increasing food production for smallholder and large-scale farmers. Fertilizer Canada, working with the Canadian Co-operative Association, has developed the 4R Solution; a proposal



to Global Affairs Canada to implement 4R practices in developing countries. We ask that the Government of Canada approve this funding application, which is also sponsored by our members, to the benefit of these countries' economies and the environment.

2) Ensuring greenhouse gas reduction policies are science-based and recognize competitiveness

Sustainability is a pillar of Canada's fertilizer industry as we seek to feed a growing world population. Our nitrogen manufacturing processes are highly efficient, and near the theoretical minimum for combustion emissions based on the Haber-Bosch process. Extensive government and third party benchmarking evaluating literature and on-site performance shows that Canadian facilities perform in the top quartile for energy efficiency and greenhouse gas emissions. Likewise, potash producers employ Best Available Technology in their mining practices.

Economically or scientifically unattainable greenhouse gas reduction targets negatively impact our industry's competitiveness and increase the risk of carbon leakage. A recent report by the EcoFiscal Commission shows that the nitrogen fertilizer manufacturing sector in Alberta – where the vast majority of this product is manufactured in Canada – is one of the most energy-intensive, trade-exposed (EITE) industries, thereby the most vulnerable to costly policies.

Any targets set by the federal government should be achievable and sector-specific, balancing environmental goals with the realities of our industry. Further, the government should recognize the efforts taken by our sector to produce real emissions reductions through efforts under the 4R Nutrient Stewardship program, which if implemented on farms across Canada would offset the emissions from nitrogen manufacturing facilities.

3) Enabling trade through the development of transportation infrastructure

Two-thirds of our members' products are transported by rail, making it essential that fertilizer is transported efficiently to domestic and international customers. Most fertilizer products in Canada are produced in land-locked provinces, such as potash mining in Saskatchewan or nitrogen manufacturing in Alberta, necessitating long hauls. The large volume of shipments and special handling requirements of some fertilizer products make fertilizers the third largest commodity shipped by Canada's Class I railways, CN and CP.

Most of the fertilizer produced in Canada is exported. As the government seeks to enable trade, investments must be made in transportation infrastructure to ensure that the capacity exists to meet the needs of all shippers. There are opportunities for the federal government and the private sector to partner



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facilitating these investments, exemplified by the recent Pacific Gateway initiative.

Several recommendations were made by the *Canada Transportation Act Review Panel* to incent private and public sector investment in transportation corridors. We encourage the Government of Canada to consider and implement these recommendations quickly to aid trade-focused industries such as fertilizer.

For further information, please contact: Emily Pearce Rayner, Director, Government Relations, epearce@fertilizercanada.ca or (613) 786-3034