



CANADIAN FERTILIZER INSTITUTE
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April 16, 2015

The Honourable Glen R. Murray, M.P.P.
Minister of Environment and Climate Change
Ferguson Block
77 Wellesley Street West, 11th Floor
Toronto, Ontario M7A 2T5

Re: Response to Bill 66, *Great Lakes Protection Act, 2015*

Dear Minister,

On behalf of the Canadian Fertilizer Institute (CFI) and our members, thank you for the opportunity to respond to Bill 66, *Great Lakes Protection Act, 2015*, introduced on February 18, 2015.

CFI represents manufacturers, wholesale and retail distributors of nitrogen, phosphate and potash fertilizers. The fertilizer industry is a significant contributor to Ontario's manufacturing economy, with the production of ammonia and nitric-acid based fertilizers at CF Industries' Courtright facility. Additionally, countless large and independent agri-retailers in the province support Ontario's farmers, helping them feed Ontarians, Canadians and the world.

Simply put, fertilizer is food for plants. It is responsible **for nearly half of the world's food supply** and it is the most important crop input used by Canadian farmers. Fertilizers replenish essential nutrients in the soil and when used efficiently, maximize crop yields with minimal environmental impact. In addition, healthy lawns provide strong environmental benefits to urban centres.

CFI supports the need to protect the ecological health of the Great Lakes – St. Lawrence River Basin, by continuing the industry's extensive research, programming and awareness-building initiatives.

Supporting More Efficient use of Fertilizer Products

Canada's fertilizer industry is committed to being a part of the solution to ensure that the Great Lakes remain "drinkable, swimmable and fishable." Our industry is science-based, and is committed to research and innovation to ensure environmental stewardship when fertilizer products are being used. We encourage the Government of Ontario to adopt and support science-based decision-making on matters affecting the Great Lakes and St. Lawrence River Basin.

Sustainability can be achieved by balancing the economic, social and environmental goals of our stakeholders, including farm groups, homeowners, researchers, conservationists, governments, industry members and communities. Environmental stewardship and sustainability are not new ideas for our industry, nor for our customers who have long embraced best management practices in their farms, yards and business operations. But, as we move forward, it is increasingly important to demonstrate our successes in measurable ways and also to identify areas of potential improvement.

Protecting the Great Lakes and St. Lawrence River Basin: 4R Nutrient Stewardship

4R Nutrient Stewardship is an internationally recognized best management practice system with four key pillars for fertilizer application: **Right Source @ Right Rate, Right Time, Right Place®**. This science-based approach helps farmers and homeowners understand how efficient fertilizer application improves profitability while reducing nutrient losses into the environment:

- 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 enough fertilizer to meet the needs of the plant while accounting for nutrients already in the soil. Farmers and homeowners can use soil tests to identify nutrient shortfalls.
- 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 the fertilizer and where it is less likely to be lost to the water or air. An example on the farm would be sub-surface banding in the soil near the seed row rather than surface application. Farmers may also need to establish buffer strips near streams, rivers, lakes or wells to prevent unwanted nutrient movement into surface or groundwater.

Every farm, every lawn and every field is different. 4R Nutrient Stewardship promotes the use of Certified Crop Advisers (CCAs) to help farmers assess soil and environmental conditions to develop a customized nutrient management plan that is site-specific. Based on feedback, adjustments in practices, research and extension programming is made to further enhance sustainability.

The principles of 4R Nutrient Stewardship are also applied to lawns and gardens. CFI's Greener World program teaches home gardeners how best to fertilize lawns and gardens using the 4R principles. Healthy grass makes several important contributions to our environment. It reduces pollution, absorbs the greenhouse gas carbon dioxide and supplies oxygen. Lawns also clean water through filtration, reduce soil erosion and reduce water run-off.

Working with Stakeholders

The fertilizer industry's work to improve application practices and thereby enhance the health of the Great Lakes and St. Lawrence Basin is only enhanced by the support of government and non-government stakeholders.

Ontario is a leader in encouraging farmers to use nutrient management plans in crop production. The province has embraced 4R Nutrient Stewardship as an important tool to meet the province's agricultural and environmental goals, referenced in government publications such as *A Phosphorus Primer* and *Soil Fertility Handbook (OMAFRA Publication 611)*.

Additionally, 4R Nutrient Stewardship has been endorsed by the International Joint Commission. In the recently-released report on the Lake Erie ecosystem, *A Balanced Diet for Lake Erie: Reducing Phosphorous Loadings and Harmful Algal Blooms*, 4R Nutrient Stewardship was identified for accelerated implementation:

"The 4R program – the right fertilizer source, right rate, right time and right place – provides a useful framework for guiding fertilizer application in the Lake Erie Basin and beyond. The 4Rs can be effective in reducing nutrient export from fields, while meeting plant nutrition needs and therefore maximizing crop yields."

This support is amplified by our partners, who have undertaken extensive efforts to adopt and promote 4R Nutrient Stewardship in Ontario:

- CFI and Ontario's Centres of Excellence Social Innovation Program created a network to promote 4R Nutrient Stewardship. This urban-rural partnership included work by conservation leaders, scientists, farm leaders, fertilizer industry representatives and the Government of Ontario.
- CFI is currently funding several research programs to quantify the environmental benefits of 4R Nutrient Stewardship, implementing demonstration projects on several Ontario farms. Additionally, CFI has developed training courses for farmers and Certified Crop Advisers.
- CFI is currently working with the Grain Farmers of Ontario, the Ontario Agri-Business Association and the Government of Ontario to negotiate a 4R Memorandum of Understanding recognizing that voluntary nutrient management programs based on sound science, expert advice and public education are the best approach towards reducing the negative environmental impacts of unwanted nutrient loading in the Great Lakes.

Similar projects and partnerships have been undertaken nationally with Agriculture and Agri-Food Canada and provincially in Alberta, Manitoba, New Brunswick and Prince Edward Island.

Recommendations

CFI supports the need to protect and restore the ecological health of the Great Lakes and St. Lawrence River Basin. However, the Government of Ontario should contemplate the following when considering Bill 66, the *Great Lakes Protection Act, 2015*:

- Consider the legislative and regulatory authority already in place to achieve the objectives of protecting and restoring the ecological health of the Great Lakes.
- Recognize the voluntary actions undertaken by the fertilizer industry, farmers and homeowners to promote the principles of 4R Nutrient Stewardship in Ontario.
- Promote implementation of 4R Nutrient Stewardship in the province.

Finally, the Government of Ontario should also consider a permanent seat for farmers and the fertilizer industry on the Great Lakes Guardian Council. This will best enable the Council to make informed decisions on issues including nutrient management.

Thank you for the opportunity to comment on this important matter. Sustainability is a pillar of our industry as we work to feed a growing world population. The Government of Ontario has a unique opportunity to take advantage of advancements that have been made by our industry, and to develop a strategy that balances environmental and economic performance.

Sincerely,



Clyde Graham
Acting President
Canadian Fertilizer Institute

cc: The Honourable Kathleen O. Wynne, M.P.P., Premier and Minister of Intergovernmental Affairs
The Honourable Jeff Leal, M.P.P., Minister of Agriculture, Food and Rural Affairs
Paul Evans, Deputy Minister, Ministry of Environment and Climate Change
Deb Stark, Deputy Minister, Ministry of Agriculture, Food and Rural Affairs