

GROWING STRONGER

ADVOCACY | SAFETY & SECURITY | NUTRIENT STEWARDSHIP



FERTILIZER CANADA

NUTRIENT STEWARDSHIP: 2015 HIGHLIGHTS



Fertilizer Canada leads the way in providing innovative thinking for the fertilizer industry while making changes that positively impact the environment, the economy, and the social fabrics of Canadian life. Fertilizer Canada promotes the voluntary adoption of 4R Nutrient Stewardship (Right Source @ Right Rate, Right Time, Right Place ®). Fertilizer retailers and farmers across Canada have adopted this framework to achieve cropping system goals and demonstrate enhanced environmental protection and improved sustainability, helping to maintain our soil, air and water.

In 2015, Agriculture and Agri-Food Canada announced \$1.1 million in funding to develop a 4R Nutrient Stewardship Research Network. Canada's fertilizer industry is matching this funding, giving the project \$2.2 million for research over three years. Research using the 4R Nutrient Stewardship framework focuses on reducing greenhouse gas and ammonia emissions, losses of phosphorus to surface waters and nitrate leaching into groundwater.

Fertilizer Canada is promoting 4R Nutrient Stewardship across Canada through provincial and regional programs and initiatives. 4R Nutrient Stewardship is currently being practiced in Alberta, Manitoba, Ontario, New Brunswick, and Prince Edward Island.

- **Manitoba:** Farmers in Manitoba are utilizing 4R Nutrient Stewardship to improve agricultural productivity and minimize the impact on the environment. Fertilizer Canada is working with the Manitoba Government and Keystone Agricultural Producers to implement extension and data-collection projects across the province focused on sustainable fertilizer use in the agricultural sector.
- **Ontario:** The Ontario Government, the Ontario Agri-Business Association and Fertilizer Canada are working together to protect water quality in Ontario and support the sustainable intensification of agriculture in the region.
- **New Brunswick:** The government of New Brunswick formally endorsed a provincial agreement between Fertilizer Canada and the

1,000,000

estimated acres using 4R Nutrient Stewardship
across Canada

38

farms participating in 4R Nutrient Stewardship

13

4R researchers in Canada

3 of 4

producers are familiar with 4R Nutrient
Stewardship

3 of 5

3 out of 5 producers look to their agri-retailer
for information about 4R Nutrient Stewardship

470+

trained online in 4R Nutrient Stewardship

100+

trained on greenhouse gas reduction (NERP)

492

Continuing Education Credits obtained

New Brunswick Soil and Crop Improvement Association to help farmers implement 4R Demonstration Farms across the province to showcase how to improve sustainable food production.

- **Prince Edward Island:** A regional commitment to reduce nutrient losses into the environment was formalized through an extension of a 4R Nutrient Stewardship Memorandum of Understanding with the PEI Government, the Kensington North Watersheds Association, the PEI Federation of Agriculture and the PEI Potato Board. Industry-led 4R Demonstration Farms have shown significant economic and environmental benefits for Island farmers. Eight out of ten farms indicated lower soil nitrate levels, providing environmental protection for the province's groundwater.

Fertilizer Canada is improving the Canadian agriculture industry's ability to report on sustainable nutrient management practices. By linking commercial interests in the food sector, 4R Nutrient Stewardship can capture market opportunities arising from the food industry's demand for information on how their food is grown. A project led by Pulse Canada is utilizing 4R Nutrient

Stewardship as a tool that will enable the Canadian grain, oilseed and pulse industries to measure sustainability performance. This new information will demonstrate compliance with food industry assurance systems.

To further support crop production, the Canadian Roundtable for Sustainable Crops is working with Fertilizer Canada to build a reporting and communication framework to advance Canadian grain production metrics. Canadian and global experts recognize 4R Nutrient Stewardship as a driver to advance sustainability measurement solutions.

In addition to growers and suppliers, many regions across Canada have recognized 4R Nutrient Stewardship as a way to demonstrate and document sustainable fertilizer practices for growing crops and maintaining soil health. A report published by the International Joint Commission, A Balanced Diet for Lake Erie acknowledges 4R Nutrient Stewardship as a recognized method for managing nutrients responsibly, helping to reduce nutrient loading and harmful algal blooms. 🌾



eLearning: Nutrient Stewardship

Adopt sustainable on-farm best management practices.

4R Nutrient Stewardship and the Nitrous Oxide Emissions Reduction Protocol (NERP) help to increase production and profitability on the farm while enhancing environmental protection and improving sustainability. Fertilizer Canada has developed nutrient stewardship eLearning courses to help farmers, agri-retailers, crop advisors and industry professionals adopt fertilizer best management practices. To help ensure your success, Fertilizer Canada's eLearning courses are offered for free online, are easily accessible and provide reliable, versatile information.

Nutrient Stewardship



4R Nutrient Stewardship Training - Part 1

Nutrient Stewardship



4R Nutrient Stewardship Training - Part 2

Nutrient Stewardship



4R Nutrient Stewardship Training - Part 3

Nutrient Stewardship



4R Essentials - A Short Course in 4R Nutrient Stewardship

Nutrient Stewardship



4R Nutrient Stewardship – Manitoba

Nutrient Stewardship



4R Nutrient Stewardship – Prince Edward Island

eLearning: Safety & Security

Advance safe and secure fertilizer storage, and handling.

Safety & Security



Anhydrous Ammonia Safe Storage and Handling

Safety & Security



Ammonium Nitrate Security

Fertilizer Canada promotes the safe and secure manufacturing, handling, storage, transportation, and application of commercial fertilizers. The Canadian fertilizer industry is widely viewed as a world leader in fertilizer safety, with industry-leading, world-class Codes of Practice.

Fertilizer Canada's eLearning courses provide the necessary tools to maintain critical standards and procedures knowledge to ensure safety and security across the industry. Fertilizer Canada's eLearning courses are offered at no cost online, providing industry professionals reliable, versatile information.

eLearning: Reducing Greenhouse Gas

Improve environmentally responsible use of fertilizer.

Nutrient Stewardship



4R Nutrient Stewardship and Greenhouse Gas Reduction

Nutrient Stewardship



NERP Training Program

Nutrient Stewardship



NERP Lite

Canadian Agri-Retailers Take Note:

Agricultural Ammonium Nitrate Code of Practice coming into force December 31, 2015.

Ensuring fertilizer safety requires standardized Codes of Practice and a coordinated effort among all industry stakeholders.

The Canadian fertilizer industry champions industry-led, world-class Codes of Practice to manage the risks of fertilizer products throughout their life-cycle. Ammonium nitrate is a highly effective fertilizer that helps farmers feed our growing population and replenish nutrients in the soil.

As a fertilizer, Ammonium Nitrate is a valuable fertilizer that helps produce healthy food for Canadians, but it must be handled responsibly.

The Agricultural Ammonium Nitrate Code of Practice provides best practices for safe and secure ammonium nitrate storage and handling.

It was developed in close partnership with industry officials, and parallels existing federal regulation. The Code of Practice can aid manufacturers, distributors, and agri-retailers which sell, distribute, or store ammonium nitrate in providing their employees with the training and information for increased safety and security and assist in complying with federal regulations.

The Agricultural Ammonium Nitrate Code of Practice is a part of Fertilizer Canada's Safety and Security program designed to demonstrate the importance of product stewardship that the members of Fertilizer Canada consider a pillar of our industry.

Please note that the Agricultural Ammonium Nitrate Code of Practice is coming into full force on December 31, 2015. If you have questions regarding your site's readiness please email codes@fertilizercanada.ca.



Agri-Retailer Checklist:

- ☒ Understand the employer responsibilities
- ☒ Know your customers
- ☒ Keep accurate records
- ☒ Keep your customers informed