



FERTILIZER CANADA

Annual Report 2020

FERTILIZERCANADA.CA



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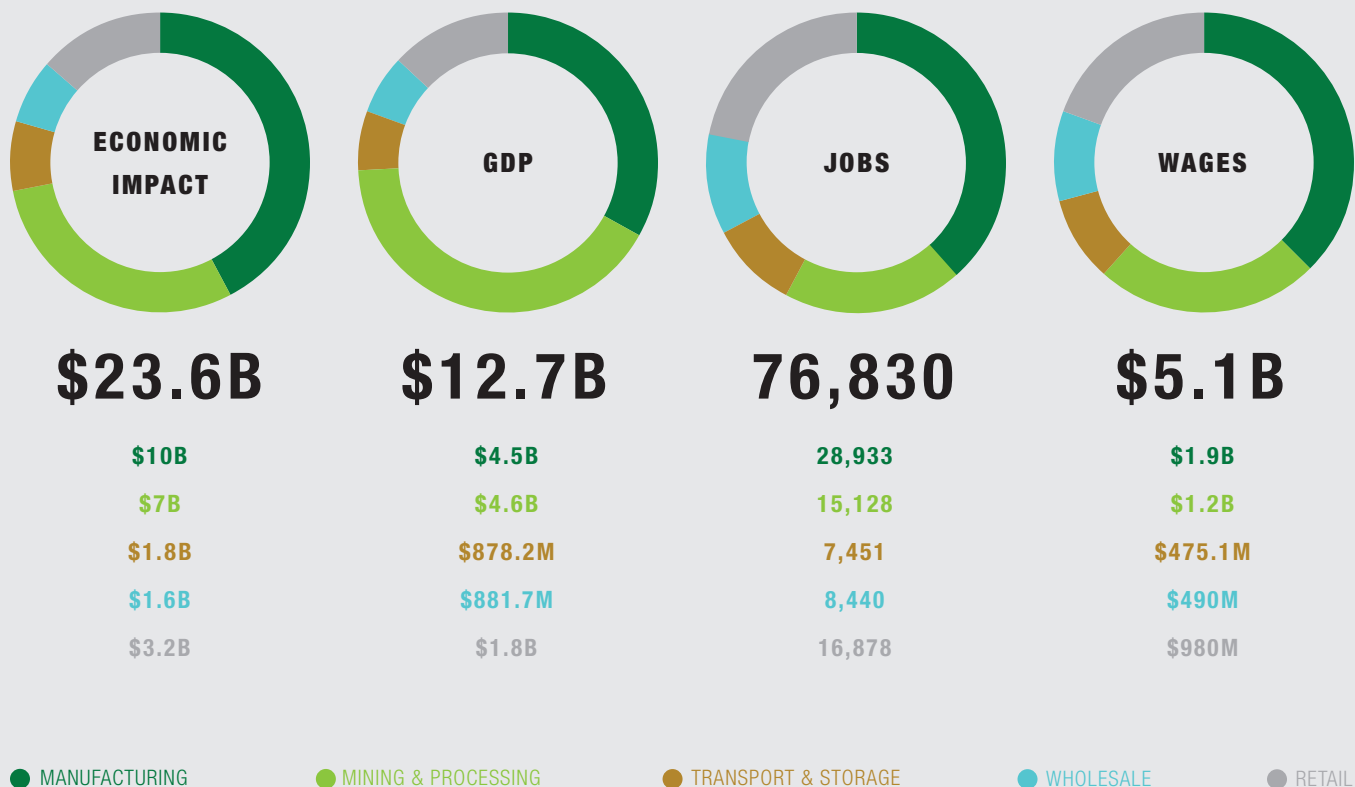
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Who We Are

Fertilizer Canada represents manufacturers, wholesale and retail distributors of nitrogen, phosphate, potash and sulphur fertilizers. The fertilizer industry plays an essential role in Canada's economy, contributing over \$23 billion annually and employing 76,000 workers throughout the supply chain. In order to remain globally competitive, we are committed to supporting our industry with innovative research and programming. We take pride in advocating for sustainability, stewardship, safety and security through our industry-leading standards and Codes of Practice. As the foundation of Canada's agri-food sector, we apply innovative solutions that positively impact the environment, the economy, and the social fabrics of Canadian life.



Message from the Chair

As Chair of Fertilizer Canada's Board of Directors, I am proud to be playing an active role in the Canadian agriculture sector to help the fertilizer industry achieve its economic, social, and environmental goals in both Canada and around the world. This year has certainly had its share of ups and downs; from rail strikes and blockades, to a Ministerial Order and a global pandemic that has altered our everyday lives as we know it. One thing our industry has proven, is our continued resilience and ability to work through challenging periods. During the COVID-19 pandemic, the fertilizer industry was deemed an essential service, which meant that our industry did not stop, we found new ways to operate. As we have now adjusted to this new reality, we must now look to opportunities and work that needs to be accomplished. We will primarily establish a long-term recognition from the federal government and ensure the industry receives commitment to the fertilizer industry as an essential contributor to Canada's economy.

While I have completed my two-year term as Chair, due to unforeseen departures from the Board in the last year, I will be staying on an extra year to support Fertilizer Canada in teeing up its strategic planning. I am pleased to say that Sarah Fedorchuk from Mosaic has moved into the role as Vice Chair. In our roles, we hope to provide stability and improvements to our governance structure, particularly through Fertilizer Canada's organizational excellence.

As a first step, the Board has created a nominating committee to help streamline the process and better hear our members' concerns. For example, our new nomination policy will adopt for the nomination and selection of Directors of Fertilizer Canada's Board. The Policy will also provide a formal mandate for the Nominating Committee to ensure a transparent process for Board elections and forms part of Fertilizer Canada's governance framework, in addition to the existing General By-law.

Overall, the Nomination Policy will follow 5 key guiding principles:

- Board Succession
- Stability
- Transparency
- Diversity
- Member participation

As we look to the future of our industry and release our new strategic plan, it is important we reflect upon the past and highlight the key accomplishments that came out of our Vision 2020 strategic goal of 'Delivering Exceptional Member Value.' Spanning across Fertilizer Canada's pillars, members worked around the clock to meet our 4R verified acres goal and signed multiple MOUs to support the expansion and adoption of 4R Nutrient Stewardship. The results from our fertilizer use survey indicated an increase in on-farm adoption of 4Rs.

Fertilizer Canada, together with the Cooperative Development Foundation of Canada and Global Affairs Canada, started its five-year 4R Solution project, focused on bringing 4R Nutrient Stewardship to 80,000 smallholder farmers in Sub Saharan Africa.

Our members continue to be 100 per cent compliant with the Codes of Practice. 416 Canadian sites are Certified through the Anhydrous Ammonia and Ammonium Nitrate Codes of Practice and we have worked extensively over the past three years with both federal and provincial governments to ensure that when a carbon price is applied, it reflects the realities of fertilizer manufacturing. Fertilizer Canada continues to work on behalf of our members to ensure that greenhouse gas reduction policies are meaningful and the federal and provincial governments hear our message, not hurt our industries competitiveness.

Recently, the association conducted a two-part Perception Audit to gain a better understanding how stakeholders and government officials view the fertilizer industry and Fertilizer Canada and received 93% approval rating. The audit also highlighted the Association's need to refocus efforts on traditional advocacy and as a result, Fertilizer Canada has rebuilt its Public Affairs team with a renewed focus on increasing engagement with targeted government allies and through creative visibility campaigns that reinforce the efforts of Canada's fertilizer industry.

Fast forward to today, Fertilizer Canada has launched its 2020-2025 strategic plan that will provide continuity of direction in order to meet our members' needs as well as new areas of emphasis that will reflect our members' realigned priorities. Our plan is organized around the Strategic Framework, which emphasizes our Vision Statement of advancing the safe, secure and sustainable production and use of fertilizer, through proactive science-based programs, innovation and advocacy – benefitting Canada and the world.

Fertilizer Canada's future success will emphasize a greater focus on policy and advocacy. It will also provide clarification on the meaning of our Pillars of Success, and the identification of the outcomes it intends to achieve. The plan builds upon the work of past strategic plans and when complete, will move our organization closer to the achievement of the Vision. Our key initiatives in the coming years will identify the major pieces of work that are required within each pillar to achieve the strategic objectives and will provide a basis for the Board of Directors to improve its overall governance structure. This will also provide direction to the staff and committees to establish workplans and budgets that are aligned to this plan.

In our post-COVID recovery, Fertilizer Canada will focus on increasing public and government confidence in Canada's fertilizer industry. Building and maintaining relationships with key government officials and policymakers will be at the core of what we do in order to influence public policy and deliver programs and services that assist each and every one of our members' potential. The implementation of this plan will provide considerable value to manufacturers, wholesalers and retail distributors of nitrogen, phosphate, potash and sulphur fertilizers within Canada and to our export markets.

The fertilizer industry continues to be a leader in the agriculture sector and in order to maintain our status as a key exporter of fertilizer product around the world, we will continue to work hard to ensure the fertilizer industry is not overburdened by regulation and tax. We are confident that we are capable of and committed to meeting the challenges we have set for ourselves from now through to 2025 and I look forward to leading the organization in its first year of this new chapter.

Brian Mark

Nutrien

Chair of the Board of Directors



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IN OUR POST-COVID RECOVERY, FERTILIZER CANADA WILL FOCUS ON INCREASING PUBLIC AND GOVERNMENT CONFIDENCE IN CANADA'S FERTILIZER INDUSTRY. BUILDING AND MAINTAINING RELATIONSHIPS WITH KEY GOVERNMENT OFFICIALS AND POLICYMAKERS WILL BE AT THE CORE OF WHAT WE DO IN ORDER TO INFLUENCE PUBLIC POLICY AND DELIVER PROGRAMS AND SERVICES THAT ASSIST EACH AND EVERY ONE OF OUR MEMBERS' POTENTIAL.

BRIAN MARK

CHAIR OF THE BOARD OF DIRECTORS

Message from the President

There are few words that can truly define the last twelve months at Fertilizer Canada. With two major rail disruptions and a global pandemic, this has undoubtedly been an unprecedented time for us all. However, when reflecting on these times it is reassuring to know that our association remains stable during these uncertain times. Despite these challenges, we have continued to promote the importance of the Canadian fertilizer industry's competitiveness, the vital role we play in the economy, and the critical nature of fertilizer in feeding the world.

Our members strongly support Fertilizer Canada's industry-leading programs like 4R Nutrient Stewardship and Codes of Practice. These programs have enabled us to develop strong relationships with federal and provincial government officials, stakeholders, and policy makers. As a next step, our membership has clearly told us that the association must now put more emphasis on targeted advocacy efforts to call attention to the issues that are critical to the success of the fertilizer industry in Canada.

Given the natural transition of this strategic focus, we recognize our industry's challenge to maintain its economic strength in the face of pressures to compete in domestic and the global export markets. Ongoing meetings with politicians and government officials have already presented an opportunity to grow new relationships, which are particularly important in the context of an uncertain minority parliament. Bringing our key issues to the attention of key decision-makers will help bolster our position as an industry that is a major contributor to Canada's economy and one which is critical to the success of Canada's farmers and agri-business sector.

For example, a rail system that is subject to continuous disruption threatens not only our members businesses and domestic grower customers, but Canada's status as a dependable trading partner. Our members and our economy cannot afford this and that is why we will continue to advocate for effective, evidence-based policies and regulations to ensure that rail transportation, and the entire transportation network, remains competitive for Canada's export-driven fertilizer industry, including the implementation of a mechanism to avoid future labour disruptions.

As an initial step in this direction, we developed a strong advocacy plan that allowed us to navigate through the CN Rail strike in November 2019, and the Ministerial Order and rail blockades in January 2020. We met with government officials to seek permanent solutions to the routine service issues our industry was facing at the time and called upon the government to deem rail an essential service, which it finally did, in April.

Member committee work and meeting attendance are also important opportunities to call attention to the issues that are critical to the success of the fertilizer industry in Canada. While our advocacy efforts will focus on providing our top priorities, background information, and metrics to key government stakeholders, these meetings provide us with strong foundational knowledge from which we can take an active role in developing, consulting and influencing on competitive policies like the Clean Fuel Standard to enable our industry to operate successfully and efficiently.

As you are likely aware, we launched the 2020-2025 Strategic Plan recently, which is the result of a widespread consulting process that included meetings with the Board of Directors, the Strategic Planning Steering Committee, Issue Committees, and staff meetings. It sets a new strategic direction for Fertilizer Canada for the coming five years, with a focus on delivering exceptional member value.

Our new member growth strategy will include increased consistency in our member and partner services programs and greater engagement with existing members in the identification of potential new members and partners. We are revising our partnership offerings to appeal to a broader range of industry-related companies and create attractive sponsorship opportunities for all events. It is all about providing a significant member Return on Investment to your business.

Fertilizer Canada is ready to meet the challenges in the future. We are well positioned to support our members through 2025, to advance the safe, secure, and sustainable production and use of fertilizer, through proactive science-based programs, innovation and advocacy. Members will continue to be our central focus as we build out our 'Pillars of Success' in Stewardship, Policy and Regulatory Affairs, Advocacy and Communications, and Organizational Excellence.

The next five years may look somewhat different from what we have typically done in the past, but I have no doubt that through effective member value, advocacy, and communications, we will continue to bring about positive, meaningful change for the fertilizer industry. We look forward to working more closely with our members in the coming years to see this mission through.

Garth Whyte
President & CEO



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FERTILIZER CANADA IS READY TO MEET THE CHALLENGES IN THE FUTURE. WE ARE WELL POSITIONED TO SUPPORT OUR MEMBERS THROUGH 2025, TO ADVANCE THE SAFE, SECURE, AND SUSTAINABLE PRODUCTION AND USE OF FERTILIZER, THROUGH PROACTIVE SCIENCE-BASED PROGRAMS, INNOVATION AND ADVOCACY.

GARTH WHYTE
PRESIDENT & CEO

Advocacy and Communications

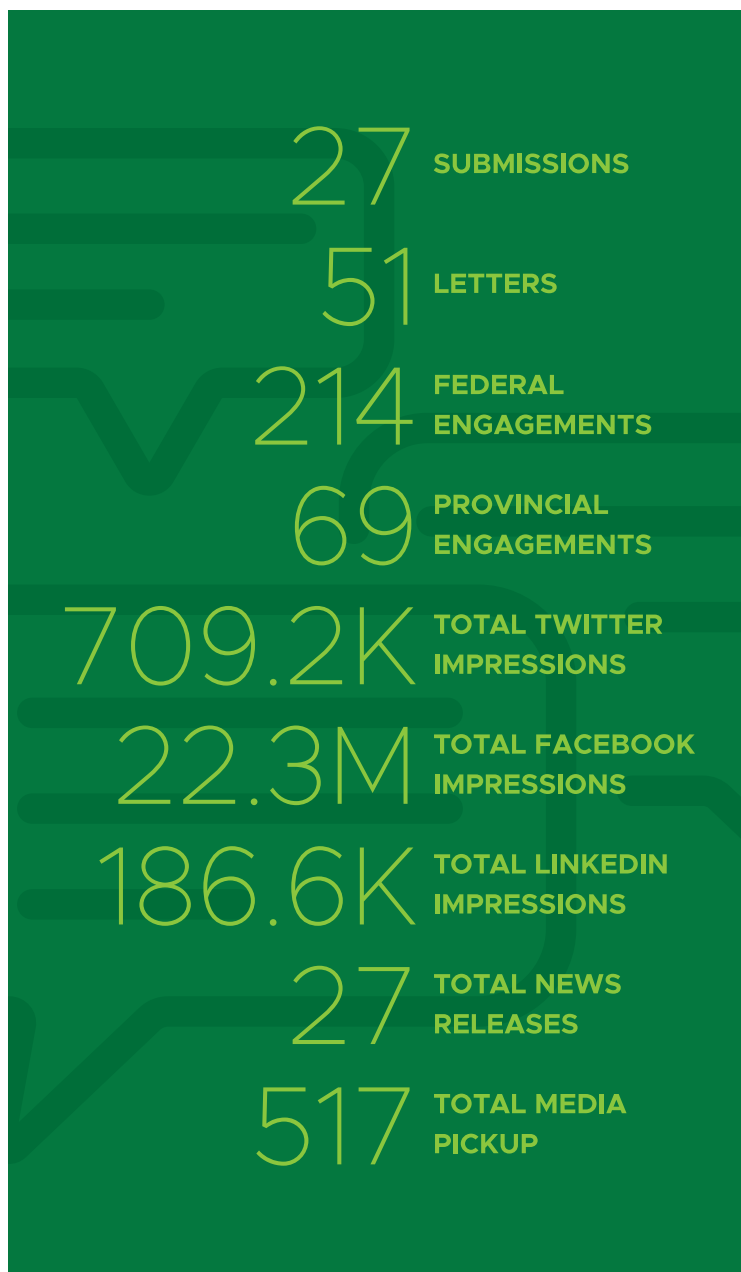
The Advocacy and Communications pillar is dedicated to delivering important information and metrics to our key stakeholders, and moving forward on regulatory and policy issues that improve our member's ability to remain globally competitive. In concert with the Policy & Programming team, we leverage their expertise with our government insight and strategy to bolster the recognition and standing of our industry as a major contributor to Canada's economic success.

Declaring Fertilizer an Essential Service

As a result of Fertilizer Canada's advocacy efforts, during the COVID-19 pandemic – an event that has changed the way the world businesses operates - our members were able to largely maintain business-as-usual. By engaging with government officials at both the provincial and federal levels this spring, members of the fertilizer supply chain were designated as an essential service and the industry was able to carry on business regardless of the Canadian economic shutdown. In total, we were designated as an essential service by the provinces of Alberta, Saskatchewan, Manitoba, Ontario, and Quebec, as well as by the federal government.

Throughout this period we were also active on issues such as keeping the Canada-US border open to essential service traffic, relaxing commercial carrier, extending regulatory reporting deadlines, managing emerging labour issues in both rail and trucking industries, and advocating for the prioritization of temporary foreign workers.

To be proactive, Fertilizer Canada also engaged in a series of meetings with politicians that had an interest in the fertilizer industry, whether through a committee assignment, a formal role such as a Critic, or having a fertilizer facility in their riding. This provided a new avenue for communication and relationship building and ensured that politicians knew the essential nature of our industry to the ongoing pandemic.



Fertilizer is Essential Campaign

In May, Fertilizer Canada launched a visibility campaign to reinforce the essential nature of the fertilizer industry to governments and key stakeholders. The campaign showcased the industry's commitment to safety, ensuring customers needs were and continue to be met during the crisis, while highlighting the important role the industry plays in global food security. In turn, the awareness and political capital built by the campaign would be used in driving better outcomes for key advocacy goals such as rail as an essential service and the recognition of 4Rs by the federal government. The campaign also aimed to recognize our members' continued commitment to the agriculture sector, particularly during the COVID-19 pandemic.

The campaign reached key audiences across digital display and social channels and through purchased inventory on niche political sites. Targeted audience tactics were used, based on interest, behaviour, and location and Twitter, Facebook, and LinkedIn were the main social channels used to reach our audience on social. We also leveraged occupational, interest and behaviour, custom lists, and keyword targeting tactics.

**When
the dust
settles,
we'll
be there.**

FERTILIZER CANADA

**To keep
things
growing,
count
on us.**

FERTILIZER CANADA

**The sun
will
come out
tomorrow.**

FERTILIZER CANADA

**Stronger
crops for
a stronger
recovery.**

FERTILIZER CANADA

The campaign delivered over 2.8 million impressions to our audience and the paid ads we initiated generated a total of 2,746 clicks. Across channels the campaign met or exceeded our expected benchmarks and saw an increase in performance since the launch.

Legislative Forum: Alberta

Fertilizer Canada staff and members travelled to Edmonton, Alberta for our annual Legislative Forum to meet with decision makers from across the province to discuss the key issues and challenges facing Canada's fertilizer industry while advocating for effective, fair, and timely resolutions. We kicked-off our meetings at the Alberta Legislature with a presentation by Monte Solberg, former federal MP and Minister of Citizenship and Immigration Canada and Minister of Human Resources and Social Development under former Prime Minister Stephen Harper's government.

Our members participated in productive meetings with MLAs and senior officials in the Alberta Legislature, including with Tim Schultz, Chief of Staff for Alberta's Minister of Agriculture and Forestry, Ariella Kimmel from Premier Kenney's office, and Marlin Schmidt, NDP Critic on Environment, among others. During this time, we made progress on an understanding between Fertilizer Canada and the Government of Alberta regarding a 4R MOU, and gained greater insight into their, at that time, forthcoming TIER System.

Our reception was also well attended, and we were pleased to be joined by a number of MLAs during the reception including Devin Dreeshan, Minister of Agriculture and Forestry, and Prasad Panda, Minister of Infrastructure. At this time, Fertilizer Canada also announced its new First Responder Training Program that provides the first responder community educational resources they need to understand the use and handling of agricultural anhydrous ammonia.



Left to right: Luke Burton, J.R. Simplot Company, Sarah Fedorchuk, The Mosaic Company, Marilyn Komarnisky, Jeremy Goodfellow, Sollio Agriculture.



Tom Bruulsema, Chief Scientist, Plant Nutrition Canada, Steve Bigger, Richardson International Limited, Jackie Lovely, MLA Camrose Constituency in Edmonton, AB, Brian Mark, Nutrien Ltd., Chair of Fertilizer Canada's Board of Directors, and Garth Whyte, President & CEO, Fertilizer Canada in Edmonton, AB at the 2019 Legislative Forum.



Left to right: Garth Whyte, President & CEO, Fertilizer Canada, Devin Dreeshan, Minister of Agriculture and Forestry and Brian Mark, Nutrien Ltd., Chair of Fertilizer Canada's Board of Directors.

Elevating Our Issues In Ottawa

At the federal level, Fertilizer Canada organized four Hill Days for our issue committees, with the aim of introducing our organization and issues to a wider audience of new politicians and bureaucrats. This was made all the more important because it presented an opportunity to grow new relationships in the context of an uncertain minority parliament.

Due to the COVID-19 pandemic and the Canadian economic shutdown, we were only able to implement two out of the four planned Hill Days. However, over the course of two Hill Days we held a number of meetings, including with the Minister of Labour, members of the Transport Committee, a Senior Policy Advisor to the Minister of Transport, the Conservative Critic for Environment, members of the Opposition Leader's Office, the Director of Policy to the Minister of Environment and Climate Change, and the Executive Director for the Clean Fuel Standard.

Our advocacy efforts have undoubtedly proven the value in creating relationships with decision makers and creating new channels to speak directly to our government, particularly in a time period that has included embargos, strikes, and pandemics.



Fertilizer Canada Hill Day meeting with Churence Rogers, MP, Bonavista—Burin—Trinity, Newfoundland and Labrador. From left to right: Garth Whyte President & CEO, Fertilizer Canada, Churence Rogers, MP, Darcie Park, CF Industries, Natasha Stinka, Canpotex Limited and Daniel Kelter, Government Relations Manager, Fertilizer Canada.



Fertilizer Canada meeting with Filomena Tassi, Minister of Labour. From left to right: Mark Simmons, Yara Belle Plaine, Clyde Graham, Executive VP, Fertilizer Canada, Darcie Park, CF Industries, Filomena Tassi, Minister of Labour, Natasha Stinka, Canpotex Limited, Daniel Kelter, Fertilizer Canada, Garth Whyte President & CEO, Fertilizer Canada.



Fertilizer Canada Hill Day meeting with Maninder Sidhu, MP, Brampton East, Ontario. From left to right: Daniel Kelter, Government Relations Manager, Fertilizer Canada, Darcie Park, CF Industries, Maninder Sidhu, MP, Natasha Stinka, Canpotex Limited, and Garth Whyte, President & CEO, Fertilizer Canada.



Fertilizer Canada meeting with Mary Ng, Minister of Minister of Small Business, Export Promotion and International Trade. From left to right: Clyde Graham, Executive Vice President, Fertilizer Canada, Garth Whyte, President & CEO, Fertilizer Canada, Mary Ng, Minister of Minister of Small Business, Export Promotion and International Trade, Catherine King, Vice President, Public Affairs, Fertilizer Canada.

Keeping Our Goods Moving During a Rail Strike

On November 19, 2019, a group of approximately 3200 conductors, train persons, and yardpersons, represented by Teamsters Canada Rail Conference began strike action at CN Rail.

Fertilizer Canada issued multiple letters to Prime Minister Justin Trudeau, the Minister of Labour and the Minister of Transport, emphasizing the fertilizer industry's concerns about any potential work stoppage and the disastrous impacts it would have on the economy and our clients. These letters were followed by a public campaign calling on the government to use all possible tools to end the strike immediately.

Fertilizer Canada also moved quickly to communicate individually with Senior Policy Advisors in the Transport Minister's office and Minister of Agriculture's office.

Throughout the strike Fertilizer Canada facilitated multiple meetings between CN Rail and members. In addition, we organized the submission of a multi-stakeholder letter from a number of agricultural associations calling on government to intervene.



Garth Whyte appeared twice on BNN in a live on-air interview, for the purpose of discussing the impacts on the fertilizer industry and on the essential nature of rail service in Canada.



Fertilizer Canada participated in a press conference organized by the Canadian Federation of Agriculture's (CFA). Fertilizer Canada stood with CFA, Chicken Farmers of Canada, Pork Council in Canada and the Agricultural Producers Association of Saskatchewan, urging the government to take action to remove the blockades.

Combating Blockades and Embargos

A derailment in early February 2020 of a CP Rail train carrying crude oil caught fire near Guernsey, Saskatchewan leading Minister Garneau to issue a Ministerial Order limiting the speed of trains carrying dangerous goods including Toxic Inhalant Hazardous products. In response, both CN and CP issued embargos on all dangerous goods as the restrictions would have slowed down the entire system. Fertilizer Canada joined other shippers and the railways in urging the Minister to ease the restrictions. Fertilizer Canada and interested members met with the Transport Minister's office and advocated for a solution that would allow our goods to move at regular speeds. After, the Minister amended the order that limited speed, specifying it only applied to crude oil, and allowed the railways to lift embargoes on our products.

During this period, a number of blockades were also established, protesting the development of a natural gas pipeline in British Columbia, disrupting shipments of goods across Canada but most severely in Eastern Canada. Fertilizer Canada raised the need to keep our goods moving with the Minister of Labour, Minister of Transport, and their provincial counterparts as we prepared for the spring seeding season.

While the strike, Ministerial Order and blockade issues have all been resolved, Fertilizer Canada continues to advocate for rail transportation to be deemed an essential service, and has offered to work with the federal government and railways to establish a path forward to achieve this.

What's in it 4R me?

Fertilizer Canada's 'What's in it 4R Me?' campaign focused on the innovation of 4R Nutrient Stewardship in Canada. It showcased the champions involved in our 4R Certification and 4R Designation programs and highlighted the agri-retail facilities that have successfully followed the steps toward becoming Certified or Designated. Our devoted campaign landing page featured videos and testimonials from existing members to help demonstrate the positive impact that 4R programs have on growing healthy food to feed Canadians and the world in a responsible, sustainable way.

Building on the success of the 'What's in it 4R Me?' campaign, Fertilizer Canada extended the initiative until the end 2019 and continued to increase awareness and facilitated further adoption of the method amongst growers well into 2020.

350,000

**FACEBOOK AND TWITTER
IMPRESSIONS SINCE ITS LAUNCH
IN SEPTEMBER 2019.**



Global Fertilizer Day

Fertilizer Canada ran a public-facing campaign that focused on increasing the visibility of Global Fertilizer Day as an important day that highlights the achievements and successes of the Canadian fertilizer industry by showcasing industry pride at the Agriculture and Food Museum in Ottawa, Ontario.

The day focused on engaging the general public in the overall Global Fertilizer Day conversation by hosting a colouring contest where participating children had the chance to win a remote-control tractor. This was accompanied by a social media initiative where guests could take a picture with our photo frame for a chance to win a Starbucks gift card.

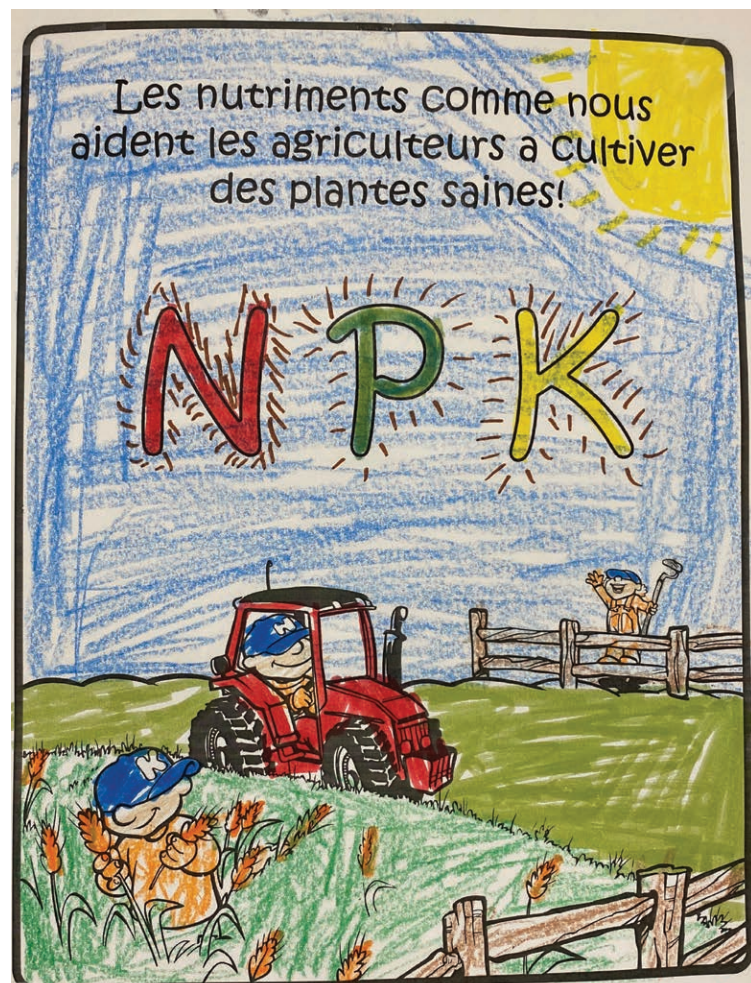
#FERTILIZERDAY19

REACHED OVER

75,000 SOCIAL MEDIA ACCOUNTS

AND HAD

359,093 IMPRESSIONS



Phosphorus Week, September 15- 21

2019 was a major milestone in the world of science. In addition to being the 150th anniversary of the Periodic Table, Phosphorus (P) Week celebrated the 350th anniversary since the discovery of P, one of the three main nutrients used in fertilizers to feed crops.

Fertilizer Canada participated in the celebration by running a social media campaign that focused on the history of P and the essential role it plays in all forms of life including food, feed, fiber, and bioenergy crops.

In addition to Phosphorus Week, Fertilizer Canada nominated Dr. Cynthia A. Grant to be inducted into the Canadian Agriculture Hall of Fame. Dr. Grant's research has helped to shape current on-farm nutrient practices, giving Canadian farmers the opportunity to be global leaders in climate-smart agricultural practices. It has been our pleasure to work with Dr. Grant throughout her career, and we congratulate her on the induction into the Canadian Agricultural Hall of Fame.

#PHOSPHORUSWEEK19

REACHED OVER

18,000 SOCIAL MEDIA ACCOUNTS

AND HAD

137,336 IMPRESSIONS



Dr. Cynthia A. Grant at the Canadian Agriculture Hall of Fame ceremony in Québec City, QC.

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THIS INDUCTION IS A HUGE HONOUR AND CERTAINLY ONE THAT I HAVE TO SHARE WITH THE TREMENDOUS PEOPLE THAT I HAVE BEEN ABLE TO WORK WITH THROUGH THE YEARS. RESEARCH IS A COLLABORATIVE FIELD AND INTERACTING WITH THE FARMERS, INDUSTRY, UNIVERSITY AND GOVERNMENT AGRONOMISTS, AND INTERNATIONAL PARTNERS HAS MADE MY CAREER TRULY REWARDING.

DR. CYNTHIA A. GRANT

Fertilizer Canada's 74th Annual Conference and the North American Fertilizer Transportation Forum

2019's annual conference was held in beautiful Victoria, BC., allowing for members to network and hear from speakers updating them on issues affecting the Canadian fertilizer industry. The speakers included Magnus Ankarstrand, President of Yara North America, who presented on global competitiveness and highlighting 4R Nutrient Stewardship as a progressive tool in maintaining the industry's social license to operate. The second speaker was Darrell Bricker, CEO, Public Affairs, IPSOS, and author of 'Empty Planet' who spoke on the state of global population in 2050.

Fertilizer Canada recognized distinguished members of the industry, including Kathy Jordison, who was presented with an Honorary Membership for her outstanding contributions, dedication, and service to the fertilizer industry.



Left to right: Kathy Jordison, Honorary Member, Sarah Fedorchuk, The Mosaic Company, Vice-Chair, Fertilizer Canada's Board of Directors, and Garth Whyte, President and CEO, Fertilizer Canada



Cassandra Loomans, Sylvite Group of Companies and Dan Cole, Grow Markets.



Top: Left to right: Top: Chris Reynolds, Nutrien, Ian Gray, Federated Co-op Ltd., Scott Russell, Nutrien, Ryan Hiebert, Nutrien. Bottom: Dan Maulder and Tanis Mulder, Federated Co-op Ltd., Matt Conacher, Federated Co-op Ltd., Cassandra Cotton and Catherine King, Fertilizer Canada.

Bottom: Left to right: Raymond Carriere, Communities in Bloom/ Nutrients for Life Foundation Canada, Tamara Sealy, Nutrients for Life Foundation Canada, Terry Baker, Nutrients for Life Foundation Canada, and Dan Doyle, Fertilizer Canada.



Left to right: Brian Mark, Nutrien Ltd., Chair of Fertilizer Canada's Board of Directors, Kathy Jordison, Honorary Member, Magnus Ankarstrand, President, Yara North America and Garth Whyte, President and CEO, Fertilizer Canada



North American Fertilizer Transportation Forum (NAFTF) delegates Left to Right: Marianna Kuemper, GATX Corporation, Jennifer Radborne, GATX Rail Canada and Michelle Walsh, J.R Simplot Company.



Left to right: Bill McBain, Nutrien, Mathew Rosgen, Cargill, Dale Matchett, Richardson and Brian Mark, Nutrien Ltd, Chair of Fertilizer Canada's Board of Directors.

Policy and Regulatory Affairs

It is Fertilizer Canada's priority to build member consensus on regulatory and policy issues, to ensure the impacts of such complex goals are sufficiently considered, and proactively create the case for changes that will improve competitiveness.

Formation of a Fertilizer Canada Cannabis Working Group

Prior to the Cannabis Act and Regulations coming into force, a Canadian Fertilizer Products Forum (CFPF) Working Group was formed to review the Cannabis Act to provide the Canadian Food Inspection Agency and Health Canada on fertilizer and supplement use in the production of cannabis. Since the Cannabis Act and Regulations have come into force, Fertilizer Canada has worked to maintain the industry's social license for fertilizer and supplement products used in cannabis production.



Carbon Pricing

On behalf of our members, Fertilizer Canada has, and continues to advocate for recognition and protection of Energy-Intensive, Trade-Exposed (EITE) industries under any Output-Based Pricing System (OBPS).

One-size-fits-all reduction targets do not recognize the increased sensitivity of highly EITE industries to negative competitiveness impacts, carbon leakage and investment loss. Any reduction targets set should be sector-specific, focus on economic and technological achievability.

In 2019, Alberta released their new Technology, Innovation and Emissions Reduction (TIER) System which was implemented on January 1, 2020. Fertilizer Canada appreciated Alberta's recognition and appropriate treatment of the irreducible component of the fertilizer industry's emissions – industrial process emissions – within the TIER framework.

Clean Fuel Standard

The federal government's development of the Clean Fuel Standard (CFS) continues with its recent consultation period over the month of June 2020 for the liquid stream of the standard. The Canadian CFS will be the first policy framework in the world to establish lifecycle carbon intensity requirements separately for liquid, gaseous and solid fuels, as it will go beyond transportation fuels alone to include those used in industry and buildings. The objective of the CFS is to achieve 30 megatonnes of annual reductions in Canada's greenhouse gas (GHG) emissions by 2030 and is intended to be complementary to the Pan-Canadian approach to pricing carbon pollution.

Fertilizer Canada continues to work on behalf of our members by engaging with Environment and Climate Change Canada, among other provincial and federal government offices, to ensure that the importance of natural gas, and its composition, to our industry is acknowledged and that the Government of Canada address our concerns to protect our global competitiveness.

13th Annual Canadian Fertilizer Products Forum (CFPF)

The 13th annual Canadian Fertilizer Products Forum (CFPF) was hosted in Ottawa on January 14-15, 2020. With close to 100 attendees for the two-day event, delegates heard presentations and participated in discussion sessions led by the Canadian Food Inspection Agency (CFIA), Pest Management Regulatory Agency (PMRA), and Public Health Agency of Canada (PHAC), in addition to speakers from industry and stakeholders including the Canadian Federation of Agriculture (CFA), NutrientStar, and the Biological Products Industry Alliance (BPIA). The CFIA Fertilizer Section also provided program updates, proposed policy directions, and conducted a priority-setting exercise with CFPF participants.

The CFPF helps to set the stage for priorities going forward for government and industry with the modernized Fertilizers Regulations anticipated for publication in 2020.





Urban Fertilizer Council

Fertilizer Canada's urban fertilizer members have been long-time participants in Ontario's Municipal Hazardous or Special Waste (MHSW) program. However, Fertilizer Canada has been advocating for the removal of urban fertilizer (lawn and garden products) from the Ontario MHSW Regulations and program since 2010.

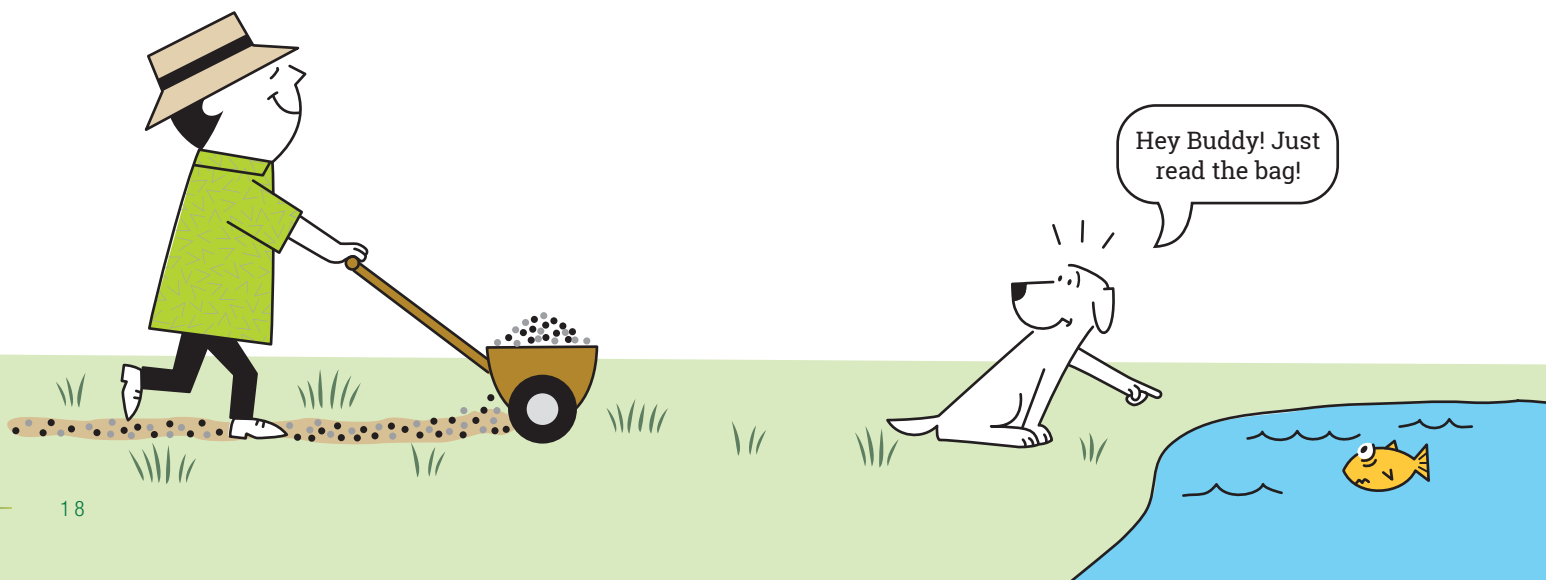
In order to better educate the government about the why urban fertilizer should not be considered a special waste, the Urban Fertilizer Council developed the Greener World program focused on the responsible use of lawn and garden fertilizers. The program follows the 4Rs of fertilizer use: the Right Source of fertilizer at the Right Rate, the Right Time and the Right Place®.

Healthy grass provides a number of important environmental benefits. It absorbs greenhouse gases, cleans water through filtration, reduces soil erosion and water run-off and traps dust and other airborne particles.

Fertilizer Canada and companies that provide plant nutrient products for the home created the Urban Fertilizer Council to help homeowners and turf management professionals understand how to look after their green space safely and properly.

6,704,424

**PEOPLE REACHED THROUGH THE 2019
GREENER WORLD CAMPAIGN**



Safety and Security

Ensuring fertilizer safety requires standardized Codes of Practice and a coordinated effort among all industry stakeholders. Fertilizer Canada aims to demonstrate the industry's social commitment, by delivering current and future programs that ensure the safe, environmentally responsible, and sustainable manufacturing, handling and use of fertilizer products.

Updated Agricultural Anhydrous Ammonia Awareness Program

Fertilizer Canada members have robust systems in place to ensure the safety of their employees, communities, and the environment. First responders are critical in ensuring the safety of themselves and our communities should an incident occur with anhydrous ammonia fertilizer. Fertilizer Canada, in partnership with the Paramedic Association of Canada, Canadian Association of Fire Chiefs and the Canadian Association of Chiefs of Police, launched an update of the Anhydrous Ammonia Awareness for First Responders awareness program, which gives the first responder community educational resources they need to understand the use and handling of agricultural anhydrous ammonia. Through the updated Anhydrous Ammonia Awareness for First Responders course, first responders will now have the most up-to-date information on the safe and secure handling of agricultural anhydrous ammonia.

Strengthening the Ammonia Code: Updated Enforcement Policy

Fertilizer Canada has updated the Ammonia Code Enforcement Policy and all ammonia agri-retail sites in Canada must be fully compliant with Ammonia Code to receive shipments of anhydrous ammonia. The Ammonia Code applies to agricultural ammonia including road and rail transportation, and outlines best practices applicable to the distribution, storage and handling of anhydrous ammonia to ensure the safety and security of everyone from our hardworking farmers, first responders, and the general public.



First responders, Fertilizer Canada, and production crew filming at a Federated Co-op Ltd. Facility for the updated Agricultural Anhydrous Ammonia Awareness Program.

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PARAMEDICS RESPOND TO AGRICULTURAL AND INDUSTRIAL INCIDENTS INVOLVING THE RELEASE OF HARMFUL GASES. OUR RESPONSE AND TREATMENT CAN DETERMINE LIFE AND DEATH FOR PATIENTS INVOLVED IN AMMONIA GAS RELEASES. THE COLLABORATION ON A TRAINING VIDEO BETWEEN FERTILIZER CANADA AND THE PARAMEDIC ASSOCIATION OF CANADA WILL IMPROVE PARAMEDIC SAFETY AND POTENTIALLY SAVE PATIENT LIVES AS WELL.

PIERRE POIRIER
EXECUTIVE DIRECTOR, PARAMEDIC ASSOCIATION OF CANADA

We make Canada's fertilizer industry safer



Our country's **\$49 billion*** agriculture sector depends on a sustainable supply of fertilizers to produce hardy, nutritious crops for Canadians to eat and producers to export around the world.



* Contribution to GDP 2015 figure. <https://www150.statcan.gc.ca/n1/daily-quotidien/190730/dq190730a-eng.htm>

Nitrogen is essential for all plant growth.

1/5th of all plant nutrition nitrogen comes from anhydrous ammonia, ammonium nitrate (AN) and calcium ammonium nitrate (CAN).

Fertilizer Canada provides industry-leading stewardship to ensure the safety, security and sustainability of these nitrogen-based fertilizers across the country.

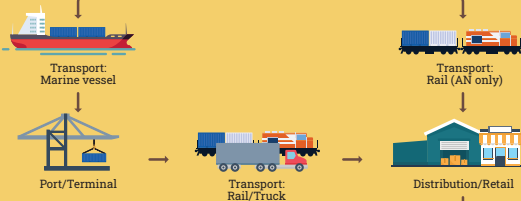


We promote safety and security throughout the entire supply chain

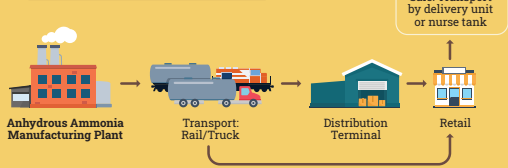
Fertilizer Canada brings the industry together to promote safe, secure practices for the production, transport, storage and use of commercial fertilizers.

Supply Chain – AN/CAN

AN/CAN is imported to Canada



Supply Chain – Anhydrous Ammonia



We create and maintain world-leading Codes of Practice

Our comprehensive Codes of Practice cover the full scope of fertilizer safety and security considerations including:

- Security and site requirements
- Safe transportation and storage
- Training and documentation
- Environmental and emergency response procedures

437 retail sites have been third-party audited and certified compliant with the applicable Codes.



Through continuous updates to the Codes, education, outreach and advocacy, we take an **active management** approach to ensuring fertilizer safety and security.

We make sure stakeholders have the knowledge and skills they need



Our training and awareness content platform ensures people who handle our products have the knowledge to **stay safe**.

Learn more about our leadership and stewardship of fertilizer safety and security across Canada.

fertilizercanada.ca @FertilizerCA



Canadian Agricultural Safety Week (CASW)

Fertilizer Canada is a proud partner of Canadian Agricultural Safety Week (CASW), and this year we highlighted the role that the Canadian fertilizer industry has taken in developing proactive safety and security measures.

CASW is an annual public campaign focusing on the importance of safe agriculture. "Safe & Strong Farms: Grow an AgSafe Canada" is the second year of a three-year campaign celebrating farm safety across Canada. The aim of the campaign is to empower farmers, farm families and

farming communities to build (2019), grow (2020), and lead (2021) the agricultural industry in safety and sustainability.

In addition to our Friend Plus sponsorship, our team developed new resources such as a promotional video and an infographic to accompany our existing training programs for farmers and first responders available on our eLearning platform. We continue to be committed to providing safety resources at all levels of the supply chain.

Transport Canada is moving forward with two amendments to the Cargo, Fumigation, and Tackle Regulation (CFTR)

As regulatory changes could take some time, Transport Canada is putting in place temporary policy/procedures that will allow for a bypass of the 10,000 tonne requirement for Calcium Ammonium Nitrate. However, these policies must come with an attached emergency response plan that the amended CFTR will not require. This requirement is expected to be removed once the regulations are changed. Transport Canada Marine Safety (TCMSS), on a case-by case basis, will review the applications by ports authorities to load onto/unload from vessels more than 10,000 tonnes of Ammonium Nitrate Based Fertilizer.

Fertilizer Canada is currently working with the ammonia nitrate working group to demonstrate how our market operates, what these changes will mean for the industry, and what is needed in order to execute the changes on this regulation. Transport Canada has indicated to Fertilizer Canada that their goal is to have these changes to benefit both the Department and our industry.

Fertilizer Canada visit to the ResponsibleAg training site

In June 2019, several Fertilizer Canada staff had the opportunity to visit the ResponsibleAg facility in Owensboro, Kentucky to learn about training provided by the centre to the agriculture industry. Staff shared tactics and learning experiences in delivering industry training programs for the common purpose of assisting industry navigate applicable federal regulations and ensuring a high level of stewardship for farm inputs within the agribusiness community.



Fertilizer Canada staff touring the ResponsibleAg facility in Owensboro, Kentucky.

Stewardship - 4R's

The strategic intent of this Pillar is to demonstrate the industry's social commitment, by delivering current and future programs that safeguard 4R Nutrient Stewardship as an essential step towards improved on-farm economics, feeding a growing global population, and protecting the environment.

4R Nutrient Stewardship

To fertilize properly and achieve the benefits of an abundant and healthy crop, professionals should follow 4R Nutrient Stewardship: Right Source @ Right Rate, Right Time, Right Place®. This science-based nutrient management framework is universally adaptable yet locally-focused, allowing growers to tailor fertilizer needs to their specific fields and crops. By applying the right source of fertilizer at the right rate, the right time and in the right place, growers can ensure nutrients from fertilizer are taken up efficiently by their crops and not lost to water or air.

This innovative nutrient management framework allows growers to increase crop production on existing farmland while minimizing unwanted environmental impacts – creating a truly sustainable way to feed the world. The principles underpinning the 4R Nutrient Stewardship framework can be applied in any geographical location and farming system. Cost-effective and environmentally responsible, 4R Nutrient Stewardship is crucial to sustainably intensifying crop production.

4R Nutrient Stewardship has been recognized by both decision makers in Canada and around the world as a leading best management practice system for nutrient management and environmental protection.



Right Source

The **Right Source** means ensuring a balanced supply of essential plant nutrients including granular fertilizers, liquid fertilizers and/or manures.



Right Rate

The **Right Rate** is applying just enough fertilizer to meet the needs of the plant while accounting for the nutrients already in the soil.



Right Time

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.



Right Place

The **Right Place** is where the plants can easily use fertilizer and where it is less likely to be lost to the water or air.

Research

The 4R Nutrient Stewardship framework is science-based, built on key findings from highly credible soil science and crop nutrition research. Since 2013, Fertilizer Canada and The Fertilizer Institute member companies have contributed \$5.8 million toward the North American 4R Research Fund.

Dr. Mario Tenuta, Professor of Applied Soil Ecology at the University of Manitoba, through the National Science and Engineering Research Council (NSERC) was recently appointed as Canada's first ever 4R Senior Industrial Research Chair (SIRC).

Dr. Tenuta is a well accomplished and respected researcher in the area of soil N management, Nitrous Oxide emissions,

and 4R Nutrient Stewardship best management practices for nitrogen. He has a unique ability to bridge research findings to farmers, industry, policymakers and the public, and is highly respected by his peers. Research conducted by the SIRC fills important knowledge, training, and adoption gaps of 4R practices. This SIRC program is also supported by the Western Grains Research Foundation (WGRF), a farmer-funded non-profit supporting agricultural research in Canada, and the University of Manitoba.

We expect that this expanded collaboration with Dr. Mario Tenuta will lead to further implementation of 4R Nutrient Stewardship.



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AS AN INDUSTRY, FERTILIZER RESEARCHERS RECOGNIZED THAT THE AGRICULTURE INDUSTRY IS A DOMINANT PLAYER IN THE REDUCTION OF GREENHOUSE GASES. THEREFORE, USING THE 4R NUTRIENT STEWARDSHIP APPROACH SEEMED TO BE A GOOD WAY TO EVOLVE PRACTICES TO ADDRESS ENVIRONMENTAL ISSUES.

DR. MARIO TENUTA
UNIVERSITY OF MANITOBA

4R Certification and Designation

Fertilizer Canada retail member companies submitted over 700,000 acres under 4R Designation and Certification in 2019. Through our 4R retailer programming, you can track and report acres under 4R Management which helps us demonstrate how the fertilizer industry in Canada is well positioned to provide sustainable and climate smart agriculture solutions.

Certification

4R Certification is a voluntary program in eastern Canada which allows agri-retailers validate their commitment to the principles of 4R Nutrient Stewardship. Through a third-party, desk audit, the program certifies nutrient services providers in the areas of training, nutrient recommendation and application and documentation as it relates to a set of 37 standards developed and approved by the 4R Ontario Steering Committee.

Ontario - The 4R Certification program continues to gain steam in Ontario with a total of 1,711 growers in South western Ontario who are positively impacted by 4R Certified agri- retailer. This translates to 429,566 acres, accounting to approximately 10% of Southwestern Ontario's total crop land, with 31 full-service agri-retail locations that have completed a pre-audit in Western Ontario, 26 of those locations are located within Lake Erie watershed.

The program is funded and guided the 4R Ontario Steering Committee comprised of a diverse set of stakeholders from industry, government, conservation authorities and grower organizations including Fertilizer Canada, the Ontario Agri Business Association (OABA), Grain Farmers of Ontario (GFO), the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), the Ontario Federation of Agriculture (OFA) and the Christian Farmers Federation of Ontario (CFFO) and Conservation Ontario.

PEI – Fertilizer Canada is pleased with the extension of a Memorandum of Understanding (MOU) between Fertilizer Canada, the Government of PEI, the PEI Federation of Agriculture, the PEI Potato Board and the Kensington North Watersheds Association.

This renewed partnership will allow growers on PEI to have improved access to sustainable agriculture solutions, reducing environmental impacts such as nutrient leaching to water and greenhouse gases. The expansion to the existing MOU on PEI commits \$60,000 over three years to implement 4R Certification among the island's agri-retailers. The program has been successfully adapted to fit PEI's agriculture and agri-business landscape with expected audits to commence late 2020.



THE ONTARIO AGRI BUSINESS ASSOCIATION (OABA) SINCERELY CONGRATULATES THE 17 AGRI-RETAIL FACILITIES THAT HAVE ACHIEVED THEIR 4R CERTIFICATION. THEIR COMMITMENT OF TIME, RESOURCES AND EXPERTISE TO ACHIEVE 4R CERTIFICATION IS A VERY CLEAR INDICATION THAT ONTARIO'S AGRI-RETAILERS ARE WILLING AND ABLE TO PROVIDE LEADERSHIP IN THE ADOPTION OF 4R NUTRIENT STEWARDSHIP PRINCIPLES THAT WILL BROADLY BENEFIT BOTH ONTARIO'S AGRI-FOOD PRODUCTION SECTOR AND THE ENVIRONMENT.

DAVE BUTTENHAM
CEO OF OABA

New 4R Nutrient Stewardship eLearning course in Ontario

Under the 4R Ontario Memorandum of Understanding, Fertilizer Canada with its partners developed and launched a Ontario specific course which will allow farmers, agronomists, students and others living in Ontario to get the most up-to-date 4R training and information for applying the Right Source @ Right Rate, Right Time, Right Place® under Ontario conditions. The principles underpinning 4R Nutrient Stewardship can be applied in any geographical location and farming system and encompasses highly effective fertilizer best management practices that help farmers feed our growing population and replenish nutrients in the soil.

Farmers, agronomists, students, and others living in Ontario, interested in getting the most up-to-date training can find the 4R Nutrient Stewardship in Ontario course online for free.



Designation

4R Designation provides a way for agri-retailers to measure implementation of sustainable agriculture practices on acres they manage by submitting them to Fertilizer Canada. Fertilizer Canada's goal is to count, and capture verified acres under 4R Nutrient Stewardship as a way to demonstrate the industry's commitment to sustainability.

Fertilizer Canada retail member companies submitted over 450,000 acres under 4R Designation in 2019. This information allows Fertilizer Canada to show our industry is committed to sustainable nutrient management and environmental stewardship.

“

ALL AGRONOMISTS WANT RELEVANT, TIMELY AND TECHNICAL INFORMATION TO SHARE WITH THEIR GROWERS AND THAT'S WHAT 4R NUTRIENT STEWARDSHIP DOES. IT GIVES THEM SOMETHING MEANINGFUL TO HAVE PROACTIVE CONVERSATION WITH THEIR GROWERS ABOUT AND PROVIDES GUIDANCE ON NUTRIENT RECOMMENDATIONS. IT'S A WAY TO PROVIDE ADDITIONAL VALUE TO OUR GROWER CUSTOMERS.

TRISH MEYERS

CERTIFIED CROP ADVISOR AND DIRECTOR OF CROP SUPPLIES WITH FEDERATED CO-OP. AND CHAIR OF FERTILIZER CANADA'S NUTRIENTS COMMITTEE

2019 Canadian Association of Agri-Retailers (CAAR) Conference and the 4R Nutrient Stewardship Agri-Retailer Award

Each year, CAAR shines a spotlight on the best and brightest of the agri-retail industry during their Choice Awards Banquet. The 4R Nutrient Stewardship Agri-Retailer Award, which is sponsored by Fertilizer Canada, celebrates an agri-retailer that has demonstrated their commitment to the 4R Program.

Through their commitment to 4R Designation and their leadership in implementing 4Rs in Western Canada, Cargill Ltd was recognized with the seventh annual 4R Nutrient Stewardship Agri-Retailer Award.



Catherine King, Vice President of Public Affairs at Fertilizer Canada, presented Walt Erns, National Agronomy Leader at Cargill Ltd, with the seventh annual 4R Nutrient Stewardship Agri-Retailer Award.

Fertilizer Use Survey Report

The Fertilizer Use Survey Report assists in understanding the current state of fertilizer management in Canadian crop production and how growers use and make decisions about fertilizer applications. Initially conducted between the 2014 and 2017 growing seasons, in cooperation with the Canadian Field Print Initiative, the survey - now under the leadership of Fertilizer Canada - gathers data on fertilizer management practices and current knowledge of 4R Nutrient Stewardship from growers across the country.

The survey also captures baseline data about major grain, oilseed and pulse crops in Canada. This information is essential for developing sustainability metrics and sound 4R Nutrient Stewardship strategies.



On average

70%

of Canadian crop acres are operating under the basic principles of 4R Nutrient Stewardship



x2

Grower awareness of 4R Nutrient Stewardship has almost doubled from 2014 to 2017

Soil health & greenhouse gas emission reduction a key focus for Prince Edward Island

Fertilizer Canada launched an advocacy campaign to highlight efforts and opportunities for collaboration in Prince Edward Island (PEI), following their 2019 provincial election. Agriculture is the at the heart of the province's economy but the island also faces environmental issues. Since 2013, Fertilizer Canada and its partners have worked to implement on farm 4R Nutrient Stewardship practices. Fertilizer Canada staff met with the newly elected government to explain both the economic and environmental benefits of managing crop nutrients through a 4R plan and how the efficient use of nutrients from commercial fertilizers, manure, or other sources reduces input costs for crop production and minimizes the risk of nutrient losses to ground and surface water sources.



Hon. Bloyce Thompson, Minister of Agriculture and Land | Minister of Justice and Public Safety meeting with Cassandra Cotton, Vice President Policy & Programs at Fertilizer Canada during the advocacy campaign in Price Edward Island.

Tour of Nutrien's potash mining and production facilities in Allan, Saskatchewan

4R Designation provides a way for agri-retailers to measure implementation of sustainable agriculture practices on acres they manage by submitting them to Fertilizer Canada. Fertilizer Canada's goal is to count, and capture verified acres under 4R Nutrient Stewardship as a way to demonstrate the industry's commitment to sustainability.

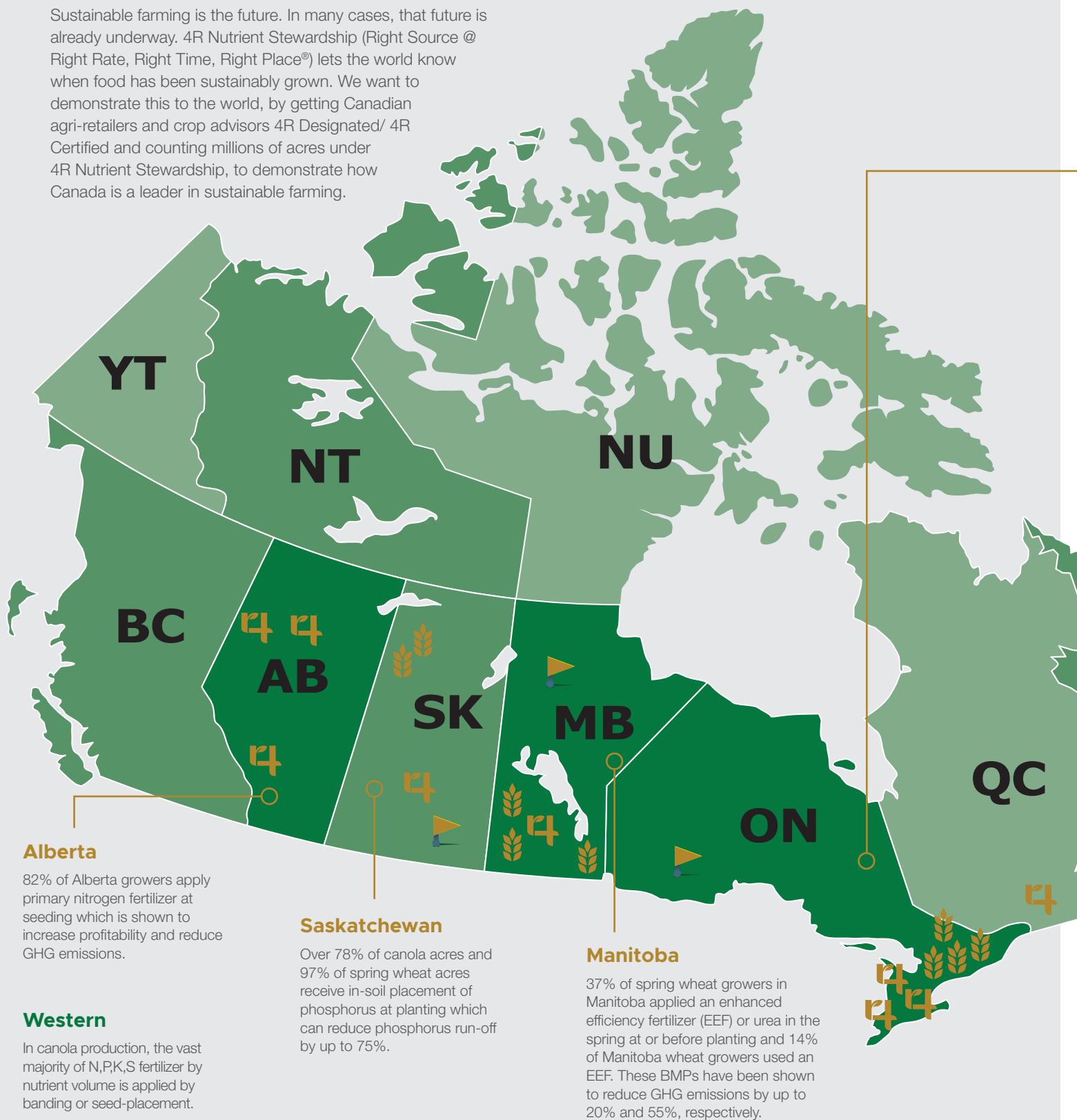
Fertilizer Canada retail member companies submitted over 450,000 acres under 4R Designation in 2019. This information allows Fertilizer Canada to how our industry is committed to sustainable nutrient management and environmental stewardship.



Left to right - Cassandra Cotton, Vice President of Policy & Programs and McKenzie Smith, Director of Stewardship & Regulatory Affairs at Fertilizer Canada.

4R's Across Canada

Sustainable farming is the future. In many cases, that future is already underway. 4R Nutrient Stewardship (Right Source @ Right Rate, Right Time, Right Place®) lets the world know when food has been sustainably grown. We want to demonstrate this to the world, by getting Canadian agri-retailers and crop advisors 4R Designated/ 4R Certified and counting millions of acres under 4R Nutrient Stewardship, to demonstrate how Canada is a leader in sustainable farming.



General

On average 70% of Canadian crop acres are operating under the principles of 4R Nutrient Stewardship.

Ontario

70% of Ontario corn growers apply phosphorus by banding or seed-placement, which has been demonstrated to reduce phosphorus run-off by as much as 60% (in comparison to broadcast application).

- 17 southern Ontario agri-retail facilities have completed and passed the 4R Certification audit to become 4R Certified
- 1,711 4R Grower Customers (10% of total growers)
- 31 sites completed a 4R Certification pre-audit
- 426,566 Acres of Farmland (11% of total farm acres)

Eastern

In corn production, almost half of N, P, S fertilizer and a third of K fertilizer by nutrient volume is banded or seed placed.

Prince Edward Island

In side-by-side trials conducted in grower's fields, 4R BMPs were shown to result in as much as a 32 per cent reduction in nitrate leaching. (Nitrate (NO₃-) leaching is when Nitrate leaves the soil in drainage water).

By the numbers



Implementing 4R Climate Smart Principles for nitrogen management can result in up to **\$87 per acre increase in profit** compared to baseline crop value



Ontario: \$22,611 per season projected benefit from corn crop in a 320-acre farm



Alberta: \$34,516 to \$56,457 per season projected benefit for a 960-acre farm growing canola, wheat and barley



Over **2,700** individuals have completed 4R Nutrient Stewardship eLearning training courses



57% of Canadian growers get their 4R advice from their agri-retailer



43% are looking for advice from a certified crop advisor

Only 31% of growers who practice 4R are aware they are operating under the program. **The next challenge is to verify these acres under 4R Designation or 4R Certification, so we can share the story of sustainable agriculture in Canada.**



MOUs/MOCs

Fertilizer Canada's Memorandum of Cooperation with Saskatchewan, Manitoba, Ontario, Québec and PEI deliver sustainable solutions for the provinces' farmers, and lead the development of the 4R Climate-Smart Strategy as a tool to quantify, and credit on-farm use of 4R Nutrient Stewardship.



Fertilizer Use Survey

The 3-year survey has collectively captured data on fertilizer use from 3,292 Canadian growers who have completed an online survey detailing fertilizer use practices on 8.3 million acres of cropland.



4R Designation/Certification

The 4R programs are voluntary programs for Nutrient Service Providers, which include agricultural retailers, agricultural service providers, and certified professionals. The 4R programs translates 4R Nutrient Stewardship into a set of Best Management Practice's (BMPS).

4R Solution

Fertilizer Canada has launched the \$17 million 4R Solution project, in partnership with The Co-operative Development Foundation of Canada (CDF) and Global Affairs Canada. The 4R Solution project facilitates knowledge transfer and implementation of 4R Nutrient Stewardship practices in Ethiopia, Ghana and Senegal. The 4R Solution project will increase food security and climate-smart agriculture practices for 80,000 smallholder farmers.

Overview

This project is an innovative partnership leverages Canadian expertise in co-operative enterprise development and gender equality, through CDF Canada, with the technical expertise and shared-value approaches of fertilizer industry through Fertilizer Canada and Plant Nutrition Canada. The combined expertise of these three proponents will deliver sustainable results in food security and economic growth through a holistic project that takes a gendered approach to production, marketing and financial access for smallholder farmers.



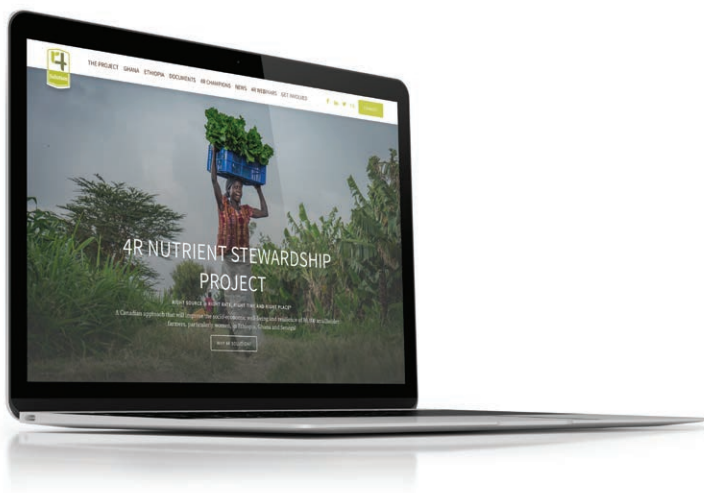
Smallholder farmers in Nanumba North attending a Focus Group Discussion with 4R Solution project team.



Delegates from Ottawa University, Global Affairs Canada and the African Delegates listening to Clyde Graham's presentation on 4R Solution.

African Delegates visit Fertilizer Canada about 4R Solution Project

On August 15, 2019 a small delegation of representatives visited Fertilizer Canada to learn about the 4R Solution project. The delegates were from Uganda, the Democratic Republic of Congo, Nigeria, Cameroon and Chad. They were led by Professor Kalame Fobissie, CEO of FOKABS at the University of Ottawa. The team were taking part in the Climate Finance course offered by FOKABS.



4R Solution Website Launch

The 4R Solution website launched September 2, 2019 as the African Green Revolution Forum opened in Accra, Ghana. With the support from partners and funders, we have launched the website to bring better fertilizer practices to smallholders in Ghana, Ethiopia and Senegal using 4R nutrient stewardship.



New Partnership with Tractors for Africa intended to advance sustainable agriculture in Ghana as part of the 4R Solution Project

Fertilizer Canada has partnered with Tractors for Africa to advance sustainable and resilient agriculture creating new opportunities for smallholder farmers. With a focus on access to mechanization this partnership will allow farmers who participate in Fertilizer Canada initiatives to have access to improved tools and technologies allowing for additional opportunities to shift from subsistence farming to market-oriented farming.



Exchange Students from Paraguay Conduct 4R Nutrient Stewardship Research in Canada

Canada's agriculture industry is a leader in sustainable climate smart on-farm practices from zero-till to 4R Nutrient Stewardship. Many countries look to our research community to learn the science behind these innovative practices and in turn implement them in their country. Fertilizer Canada, through an partnership with The Inter-American Institute for Cooperation on Agriculture (IICA), facilitated an exchange program for two agricultural

researchers from Paraguay to learn about implementing 4Rs from two of Canada's leading 4R Researchers – Dr. Mario Tenuta and Dr. Claudia Wagner-Riddle. This collaboration was part of the MoU (Memorandum of Understanding) signed between Fertilizer Canada and IICA to work together to strengthen rural development, increase food security and, improve productivity and competitiveness for small-holder farmers in the Americas.



4R Solution Project's Ethiopia Team after the Project Inception Workshop in Menjar Shenkora District

Members and Partners

Active Members Division 1,2,3

Agrico Canada L.P.
Agronomy Company of Canada
Bio Chem
Border Chemical Company Ltd.
Cargill Ltd.
Cavendish Agri Services Ltd.
CF Industries
Federated Co-operatives Limited
GROWMARK Inc.
Hawthorne Canada
International Raw Materials Ltd.
J.R. Simplot Company

K+S Potash Canada GP
Koch Fertilizer Canada, ULC
MacEwen Agricentre Inc.
McCain Fertilizers Ltd.
Nachurs Alpine Solutions
NexusBioAg
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Premier Tech

Scotts

Affiliate Members

Association professionnelle en nutrition des cultures (APNC)
Atlantic Fertilizer Council
Canadian Association of Agri-Retailers (CAAR)

Fertilizers Europe
International Fertilizer Industry Association (IFA)
International Plant Nutrition Institute (IPNI)

Ontario Agri Business Association (OABA)
The Fertilizer Institute (TFI)

Partners

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Allison Watcher

Membership & Events Coordinator

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4R Solution Project Coordinator

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Accounting Assistant

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