NUTRIENTS FOR LIFE NUTRIMENTS POUR LA VIE

2016 Annual Report

Partners & Board of Directors

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Agriculture in the Classroom Newfoundland & Labrador
Canada Agriculture and Food Museum
Canadian Feed the Children
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Mission

Our mission is to educate Canadians about the sustainable use of nutrients to increase the health and quality of our soil, improve production of nutritious food, and preserve green spaces.

Vision

Through initiatives and programs, Nutrients for Life Foundation Canada "teaches the teachers" with curriculum-aligned resources and activities demonstrating the role of nutrients in plant production. We create parallels to modern agriculture and support meaningful learning about plant nutrition and food security.

Letter from the Chair

Bob Adamson

Agricultural education informs the next generation about the science behind food production and how their meal goes from field to fork. In the past year, Nutrients for Life Foundation Canada expanded its reach, partnered with new organizations, and further solidified itself as the go-to resource for educational materials on the role plant nutrients play in feeding the world.

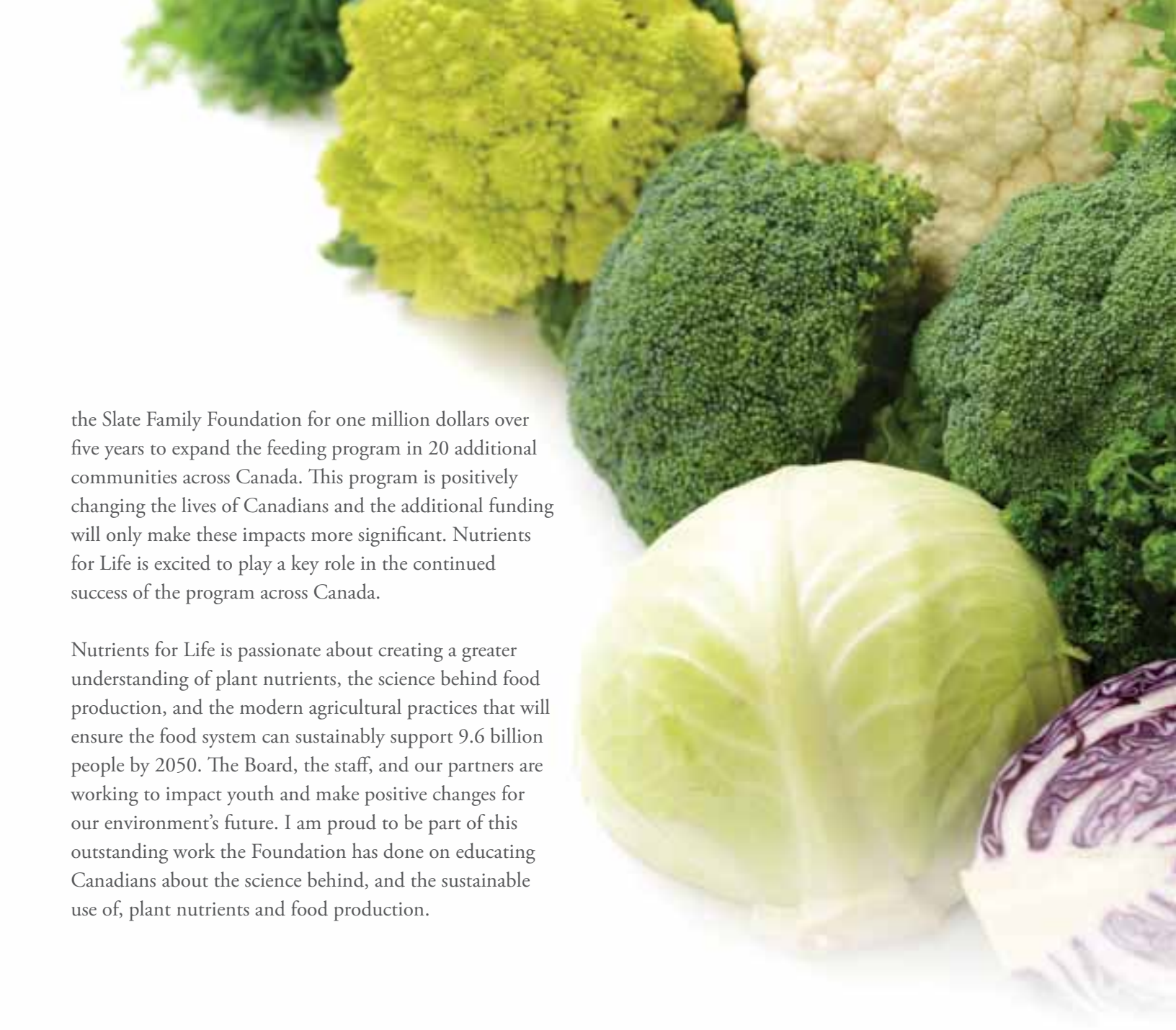
Throughout 2015 and 2016, Educational Coordinators worked in classrooms across Atlantic Canada, Ontario, and the Prairies with students and teachers implementing the six lessons from *Nourishing the Planet in the 21st Century.* Educational Coordinators act as a resource centre to the education community, attending conferences, hosting workshops, and meeting with teachers one-on-one. Often, Educational Coordinators are introducing educators to Nutrients for Life programming for the first time. Kent Lewarne, an Educational Coordinator, once said, "Nutrients for Life is one of the best kept secrets in education and it shouldn't be! In the past two years, incredible progress has been made to ensure Nutrients for Life resources are in the hands of the teachers who need them most. As an Educational Coordinator, I'm able to provide teachers with the resources they need to successfully impact their students."

Because agricultural education in schools is not mandated by provincial governments, it is the responsibility of the fertilizer industry to provide science-based resources to teachers about food production and sustainable agriculture for use in their classrooms. The six learning lessons from *Nourishing the Planet in the 21st Century*, coupled with a Nutrients for Life learning garden, allows students to explore these concepts in a hands-on manner.

Now in its second year, the Learning Garden Program has expanded into Alberta, Saskatchewan, and Ontario, in addition to having new and previously established gardens in Manitoba and the Atlantic provinces.

Throughout the year, Nutrients for Life proudly funded an additional 36 gardens, exposing countless students to agricultural sustainability. Many people are taking notice of the impact of Nutrients for Life; most notably, Environment Minister Catherine McKenna when she remarked how our programming and resources are "so great," and added how she "was in Saskatchewan a couple weeks ago talking about what we can learn about better agricultural practices and talking to young people that were doing amazing research about how we can grow heartier tomatoes because we know our climate is going to change. This is a key area and I can't wait to hear more."

Furthermore, the continued development of strategic partnerships is critical to expanding Nutrients for Life's reach. In partnership with Canadian Feed the Children, the Foundation continues to work in First Nations communities to create learning gardens which incorporate modern agricultural practices in conjunction with traditional learnings. Due to the program's success, Canadian Feed the Children has secured a grant from



the Slate Family Foundation for one million dollars over five years to expand the feeding program in 20 additional communities across Canada. This program is positively changing the lives of Canadians and the additional funding will only make these impacts more significant. Nutrients for Life is excited to play a key role in the continued success of the program across Canada.

Nutrients for Life is passionate about creating a greater understanding of plant nutrients, the science behind food production, and the modern agricultural practices that will ensure the food system can sustainably support 9.6 billion people by 2050. The Board, the staff, and our partners are working to impact youth and make positive changes for our environment's future. I am proud to be part of this outstanding work the Foundation has done on educating Canadians about the science behind, and the sustainable use of, plant nutrients and food production.

We further solidified the Foundation as the go-to resource for educational materials on the role plant nutrients play in feeding the world.

Letter from the Staff

Soil science is not a topic you often hear people talking about in line at the grocery store or at the water cooler on Monday mornings. However, where food comes from, how it is grown, and how we are going to continue growing it in a sustainable way are topics which truly engage people in conversation. Did you know most Canadians are at least two generations removed from the farm? Because of this, the challenge now becomes reconnecting them with agriculture.

Nutrients for Life has worked to help solve this problem through three key people, our Educational Coordinators: Kent Lewarne, Ray Cochrane, and Tamara Sealy. They have spent countless hours on the road, visiting teachers in classrooms, presenting at conferences, and talking to students about soil science and why keeping soil healthy is the key to a strong, sustainable agricultural system. This year, our Educational Coordinators met with over 75,000 Canadians face to face and were exposed to thousands more at professional events, tradeshows, and school field trips. We are certain this number will continue to rise as more teachers discover what an amazing resource Nutrients for Life is and how informative and supportive the Educational Coordinators are for their students. By the end of 2016, Nutrients for Life will have reached over 1.2 million Canadians due to efforts over the past five years. Our programs are successfully impacting Canadians in a positive way.

One of the key programs contributing to the Foundation's reach is learning gardens, which help students explore how modern agriculture plays a valuable role in food production and how soil science contributes to agricultural sustainability through nutrient stewardship. Learning gardens engage students in physical activities, build environmental awareness and stewardship skills, and foster collaboration, teamwork, and leadership in the community.

Catherine King (left), Director of Programs
Stacy Corneau, Communications Advisor

By the end of 2016, we will have reached over 1.2 million Canadians due to efforts over the past five years. Our programs are successfully impacting Canadians in a positive way.

The foundation is excited for what is to come; 2017 is Canada's 150th birthday and we plan to celebrate! We will be calling on all Canadians to pledge their commitment to a sustainable future through better environmental decision-making.

Using Nutrients for Life resources, we will ensure the food conversation continues and includes the important role plant nutrients play in keeping our soil healthy, improving production of nutritious food, and preserving green spaces.

Educational Outreach Program

Ray Cochrane

Western Canada

Joining Nutrients for Life in the summer of 2013, Ray Cochrane has worked in Western Canada to gain teacher contacts and implement the *Nourishing the Planet in the 21st Century* resource in classrooms. Being a retired high school science teacher, Ray understands the gap that exists in the education system in relation to agricultural education. As an Educational Coordinator, Ray assists teachers and their students as they gain an insight into agricultural and environmental sustainability.

Ray knows hands-on, experiential learning is most beneficial for students. Beginning in the spring of 2014, Ray worked with Virden Collegiate Institute in Manitoba as they received a $5,000 grant from the Foundation to build an outdoor learning garden to enhance their current community garden program. Since the creation of the learning garden, Ray has worked alongside Julie Brunel, the school's science teacher, to ensure the garden and program thrive.

To kick-start their garden, Virden Collegiate Institute had two courses working together, emphasizing teamwork and collaboration. Students worked together to not only plot the garden using GPS, but also conduct soil analysis of the initial nutrient levels and design a comparative-analysis plan on which vegetables they wanted to plant, and where, with varying nutrient-application levels.

The Land Management Water Conservation class staked the garden using their GPS units and sent the data to Virden's local Conservation District, allowing the data to be integrated into a geographic information system (GIS) program. In mid-spring, students collected soil and tested their samples for macronutrients using LaMotte kits in the school's lab. The Land Management Water Conservation class provided their data to the biology students who then assessed the nutrient levels, creating a planting strategy. The biology students researched the appropriate nutrient levels for the vegetables and determined the levels of nutrients needed.

Virden Collegiate Institute's goal for 2016 is to have a successful growing season in both their raised garden beds and apply new growing techniques, such as growing vegetables in fertilized bales.

Ray's involvement at this school, as well as every classroom he visits and event in which he participates, highlights his dedication to students, the agriculture industry, and the Foundation. Ray has been a key component to ensuring new schools in Western Canada succeed with their learning gardens and continues to act as a resource centre for teachers.

Ray's involvement at this school, as well as every classroom he visits and events in which he participates highlights his dedication to students.

Educational Outreach Program

Tamara Sealy

Atlantic Canada

Because an agricultural curriculum in schools is a priority for Atlantic Canadian farmers and industry stakeholders, Tamara Sealy's continued efforts to bring soil science and an understanding of food production to students across Atlantic Canada has been instrumentally beneficial.

Tamara was a key component to the success of the light garden program in partnership with the Prince Edward Island Agriculture Sector Council. Together, the Council and the Foundation were able to deliver 10 light gardens across P.E.I., allowing for Island students to discover the impact of soil science and sustainable agriculture year-round. Tamara continues to act as the voice of Nutrients for Life across Atlantic Canada, positively impacting students of all ages and helping them discover soil science and food production.

Furthermore, Tamara attended numerous events in 2015/2016, most notably the 2015 Canada-Wide Science Festival held at the University of New Brunswick. Nutrients for Life was proud to participate in the science festival where 500 students displayed their science projects in hopes of winning numerous prizes and awards. Tamara attended the event promoting Nutrients for Life

Foundation Canada programming and resources to over 5,000 attendees, educating them on soil health and science.

The Foundation continues to recognize the need to encourage the next generation's passion for agricultural sustainability and therefore not only attended the Canada-Wide Science Festival in 2016, but hosted an award as well. The Foundation proudly presented the Nutrients for Life Foundation Award to Rémie Cherepak for an outstanding junior project related to fertilizers, plants, and soil science. Rémie's project, entitled W*ould you eat these peas?*, focused on exploring if commonly-used vehicle fluids have a negative impact on plant growth and soil health. The Nutrients for Life Foundation Award, consisting of a certificate and $500 cash prize, fosters youth's interest in improving environmental impacts through innovative methods.

The Canada-Wide Science Festival creates an unforgettable science experience for thousands of youth each year, showcasing the work of Canada's top 500 young scientists and inspiring countless visitors to explore experiences in science and innovation. By working with partners, such as the Canada-Wide Science Festival, Nutrients for Life is reaching more students and encouraging science-based education on soil and the environment. Throughout the past year, Tamara remained an integral source of knowledge and support for schools and continued to prove why educational coordinators are a vital part of the Foundation.

Tamara has positively impacted students of all ages by helping them discover soil science and food production.

Educational Outreach Program

Kent Lewarne

Western Canada

As a long-standing Educational Coordinator, Kent Lewarne continues to play a lead role at Nutrients for Life Foundation Canada as he provided exemplary aid to schools. Working in Western Canada, he delivers Nutrients for Life programming with a focus on how to feed our growing population on an international level and involve youth from all corners of the earth.

Recognizing this crucial need, Kent brought Nutrients for Life resources abroad when he attended the Japan Super Science Fair with the Foundation's Chairman, Bob Adamson. At the fair, Kent provided a global perspective on food security by hosting the Agriculture Zone, which included 48 students representing 20 countries and five continents.

The students were led through a case study to formulate a sustainable farm plan for a fictitious 160 acre plot of land. After testing the soil and water, students were asked which crops should be planted, such as corn, soybeans, wheat, or canola. Students then determined which nutrients should be applied at which rate and how these factors would impact their fictitious income and water system. Groups delivered their sustainable farm plans and, although awards were delivered, all students gained a deeper understanding of food and water security from a global perspective.

Kent is also passionate about 4R Nutrient Stewardship (Right Source @ Right Rate, Right Time, Right Place ®). Recognizing the need to educate youth on 4R Nutrient Stewardship practices, Kent helped organize Fort Whyte Alive's inaugural *Dig It! Soil Science Symposium* to promote this framework. Hosted by the Manitoba Agriculture, Food and Rural Development with support from Fertilizer Canada and Nutrients for Life, over 70 students from eight high schools across Manitoba had the opportunity to learn about the 4R framework in a hands-on manner as they rotated through interactive learning stations. When educational coordinators attend events, such as the *Dig It! Soil Science Symposium*, they provide invaluable information to Canadian communities on the importance of implementing environmentally sustainable practices.

2015 was a monumental year for Kent as he received the Conservation Award at Pembina Valley Conservation District's Annual General Meeting. The award acknowledges those who demonstrate positive conservation principles and have undertaken conservation efforts over a number of years which have shown long-term benefits for the natural environment and

society. Kent is deeply passionate about environmental stewardship and it shows in every conversation he holds with industry stakeholders, teachers, and students.

Educational Coordinator Kent Lewarne with participants at the Japan Super Science Fair.

Kent played a lead role at Nutrients for Life delivering exemplary aid to schools.

2015-2016 Yearbook

Teachers, students, and partners alike continually remark on the benefits the Foundation brings to youth across Canada.

"We're teaching the kids values. The students say they love going to the garden because their elders make them feel welcome.."

— Crystal O'Neil
Elsipogtog School

"The garden becomes a safe place for students to go and really enables them to connect with their culture."

— Cheyenne Mary
New Brunswick Program Advisor, Canadian Feed the Children

"We hope to continue to incorporate healthy eating, growing your own food, and providing outdoor learning spaces to instill environmental stewardship in our students and community. This project also provides great leadership opportunities for students, as well as a chance to be involved in the planning, building, growing, and maintenance of the project!"

— Youngstown School

"If you ask the students if they want chips or tomatoes, they'll say fresh tomatoes."

— Dr. Lori Vitale-Cox

"Without Nutrients for Life Foundation Canada, we wouldn't have been able to offer this opportunity for Island students to have the hands-on experience of agriculture engagement."

— Laurie Loane
Executive Director,
P.E.I. Agriculture Sector Council

"We strongly believe Nutrients for Life is an excellent fit with our overall approach to programming. The project-based Learning Gardens and inquiry-based curriculum materials align with the style of experiential learning we have always supported teachers with. The strong focus on science-based learning is also a fundamental element we have in common."

— Kathryn Wagner
Inside Education

"After meeting Ray Cochrane at Rural Congress in Saskatoon, our programs have been enriched in many ways. The grant Nutrients for Life graciously donated will allow us to make improvements to the outdoor classroom, such as installing a raised garden bed that is accessible for our students with special needs, building a water conservation system, as well as the purchasing and installing a time lapse camera so our students can observe the happenings in our school wheat field."

— Amanda Kornaga
Vice Principal,
Churchbridge Public School

"Having exposure and knowledge at a young age is a piece of the puzzle that will help strengthen food security and knowledge about growing and planting."

— Claude Vautour
École Secondaire Assomption

"Nutrients for Life was a natural partner for us in Canada because they have similar goals but also because they were able to provide the educational resources and expertise we needed. Nutrients for Life has been one of our national partners in GRO1000 in Canada since 2013 and each year our educational curriculum and outreach to schools has become better and better."

— Karen Stephenson
Scotts Canada Ltd.

"The learning garden has touched many students because they have all had to work together to see this project come to life. Our garden builds a sense of community in our school, boosting student engagement."

— Julie Brunel
Virden Collegiate Institute

"Students have become mindful of sustainability and the appropriate measures to take to live a more sustainable life. Being able to educate and instill this way of thinking into children at such a young age will only benefit the environment and their own life"

— Teri Young
Ste. Marie School

"This is an absolute dream come true for us. If you ask it will happen, if you dream you can make it happen. Thank you so much; you have no idea how much this means to us. We are just so grateful you are doing this for our students."

— Heather Haynes
Miller Comprehensive Catholic High School

"Partners such as Nutrients for Life Foundation Canada are integral in our ability to aid youth in identifying issues of concern to them and building a solution to that issue in a science project."

— Brad McCabe
Executive Director, Youth Science Canada

Gardening Program 101

Learning gardens are outdoor educational environments, promoting soil science and agricultural sustainability through hands-on practice. Learning gardens strengthen the Foundation's vision of supporting Canada's school-curriculum needs with science-based content of the highest quality.

Nutrients for Life Learning Gardens

The Foundation's Learning Garden program offers grants to help schools build or expand educational gardens, and develop resources for easy creation and maintenance. Nutrients for Life believes that gardens, when used as teaching tools, provide students with an authentic, first-hand learning experience about the valuable role nutrients play in food production, health, and sustainability.

Learning Gardens are easy to create in all provinces in Canada, have a core set of philosophies, including science-based lessons on sustainable agricultural practices and introduce students to hands on experiences in growing safe and nutritious food.

Nutrients for Life Foundation Canada funded 76 gardens in 2015 and 2016. Through these gardens 5,700 students will use Nutrients for Life science-based resources, including soil testing and *Nourishing the Planet in the 21st Century* lessons. Through the learning garden program students discover the science behind how their meals go from farm to fork.

GRO1000 Gardens

Nutrients for Life knows experiential hands-on learning is the key to a lasting impact with students. With its variety of garden programs and partnerships, the Foundation continues to excel in delivering science-based lessons in conjunction with hands-on learning, leading to an increased understanding of modern agriculture practices.

In 2011, Scotts Canada Ltd. launched *GRO1000*, an initiative to establish 1,000 gardens and greenspaces in the U.S., Canada, and Europe by 2018, the company's 150th anniversary. A large portion of the program is centered on educating youth, such as instilling knowledge about growing and where their food comes from.

As the official education partner of Scotts Canada Ltd.'s *GRO1000* program, Nutrients for Life provides the winning showcase garden with hands-on assistance throughout the planning process. Nutrients for Life resources are made available to all recipients of funding and give students who use the space lessons on the importance of soil science and agricultural sustainability.

The *GRO1000* initiative has provided over 50,800 youth with agricultural knowledge and the passion for food production. The Foundation's Educational Coordinators are instrumental in engaging students and teachers in the classroom and during garden events.

Through Nutrients for Life lessons and engagement of the Educational Coordinators, *GRO1000* participants are equipped to maintain successful gardens into and beyond 2018.

Nutrients for Life knows experiential hands-on learning is the key to a lasting impact with students.

Prince Edward Island Light Gardens

In partnership with the P.E.I. Agriculture Sector Council, Nutrients for Life has delivered 10 light gardens to schools across the Island. This program is designed for students attending Prince Edward lsland schools by using the light garden to grow different vegetation. While multiple grades may be sharing plants or time with the light garden, each grade has their own set of activities. Designed for use by different grade levels, each grade's activity is designed to meet specific curriculum outcomes designated by the Prince Edward lsland Department of Education curriculum guides.

Canadian Feed the Children

Helping achieve food security in Canadian communities with the assistance of a community garden continues to be a priority to Nutrients for Life. Community and school gardens are a key component to achieving food security. Because of this, the Foundation partnered with Canadian Feed the Children to bring learning gardens to First Nations communities.

Together, Nutrients for Life and Canadian Feed the Children have worked to develop a program which introduces modern agriculture practices while incorporating traditional learning. The most successful of the gardens has been the Elsipogtog First Nation School who, through the efforts of Educational Coordinator Tamara Sealy, have worked to expand their school garden into a full initiative open to all 3,000 community members. The garden quickly became a treasured meeting space for community members of all ages; elders, parents, teenagers, and children gathered together to help ensure its success.

Program Outreach

Program metrics

76

Learning Gardens have now been established across Canada, impacting **5,700 students**

1,752

Resources distributed

90,455

Overall face to face interactions

Our Educational Coordinators continue to impact Canadians

- — 6,446 teacher interactions
- — 20,894 student interactions
- — 57,415 people interactions at conferences and events

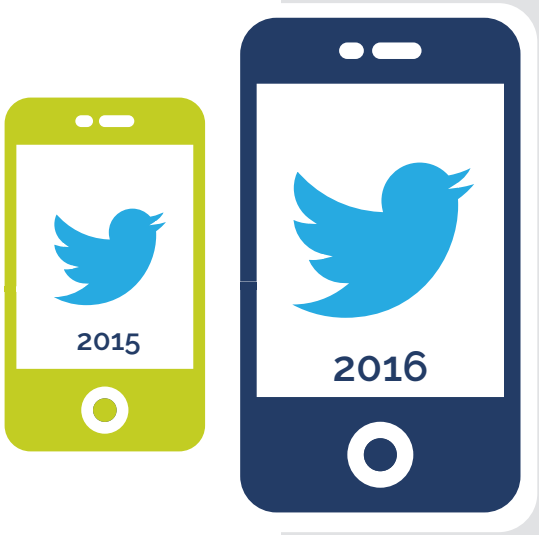
Digital and stakeholder outreach

Digital engagement metrics

- Impact report grew from 22 to 44 subscribers in first quarter of 2016
- Teacher newsletter grew from 83 to 112 subscribers in first quarter of 2016

122%

Increase in Twitter followers since 2015



1,200%

Increase in Twitter impressions since 2015

Media

- Article featured in TopCrop: 273 views
- Press release for Canada-Wide Science Fair: **5.08 million readers reached**
- Press release for Inside Education partnership: 2.96 million readers reached
- **Media reach: 8,040,273**

194,157

Canadians interacted with Nutrients for Life programming through our partners

546,657

Total program reach for the Foundation

Thank you

Nutrients for Life would like to thank those who help make the Foundation a success.

To donate to the Foundation, visit nutrientsforlife.ca.

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