

2017 Annual Report

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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

This past year has been a story of incredible growth and opportunities for the Nutrients for Life Foundation Canada. This transition year has been extremely well managed by our Executive Director Tamara Sealy. Our industry's story needs to be told from a science-based perspective to inform the current as well as next generation of students about the role that nutrients play in feeding our world and meeting both food and water security needs for our planet. This is not a Canadian story but a global one that impacts all of us regardless of where we live.



This year NFL has reached more students and communities than ever to tell our story, the story of how our industry leads the world in meeting the needs for a global sustainable food supply, one that also

addresses the issue of water security. Whether it is a 4R's teacher workshop, student soil nutrient workshop, Provincial education or industry conferences or school/community gardens establishment, our team of Regional Managers are telling your story.

And who better to tell our story? Our regional managers have both science and agricultural backgrounds that provide a bias free, science based and engagement focused experience for all of our audiences. Our mission and vision has a clear focus on our industry. We take pride in telling our collective story to ensure that in the future, any issues that confront us will be addressed in an informed and science based manner.

Nutrients for Life Foundation Canada continues to expand our reach and looks forward to working with new partners across all sectors as we educate our audience with accurate, science-based curriculum linked resources that focus on addressing food and water security issues in an engaging manner.

This past year we have not only worked across the country to address issues of food security and soil health but have embarked on an international journey where we participated in a Manitoba based International Student Forum which including students from Japan, England, Korea and Australia. Their perspectives add to our story and provide depth regarding the complexity of meeting the responsibilities for sustainable food supply and water security. Our team also presented our Sustainable Farms program in Kyoto, Japan at the Japan Super Science Fair (JSSF 2017) to 44 high school students representing 15 countries including Australia, Russia, France, and China to name a few. In closing let me revisit a comment from Kent Lewarne a Regional Manager from the very beginning of NFL. Kent Lewarne, once said, "Nutrients for Life is one of the best kept secrets in education and it shouldn't be! I am confident that we are NO longer one of the best-kept secrets in Education. With your continued support we will ensure that every region in Canada will know not only about NFL but will participate in one of our many incredible programs!

Environment Minister Catherine McKenna remarks on how our programming and resources are "so great," and talks about what "we can learn about better agricultural practices and the need for young people to continue with their amazing research." She concluded, "This is a key area and I can't wait to hear more." We shall continue to share our story so that everyone can hear more!

> Our industry's story need to be told from a sciencebased perspective to inform the current as well as the next generation of students about the role that nutrients play in feeding our World.

Letter from the Executive Director

2017 was a year of transition for the Foundation, a so-called 're-boot'! Transition for an organization should be positive, as it allows us to reflect on who we are and what we stand for. Thus, a proper transition results in "nurtured growth" as we take a reflective look at how and why our programs are successful. This provides us the opportunity to have new perspectives on how we may improve moving forward.

With the re-structure completed, we are well underway to further our reach within classrooms and communities across Canada. The Foundation has taken a look with great detail into the ins and the outs of our current structure, fine-tuning some details which will allow the Foundation to move forward both in the current year but also into the next 10 years as we expand our reach and effectively deliver our message.

flagship program, School Learning Our Gardens, continues to grow and flourish. We were able to help over 50 schools right across their students in getting Canada engage outside, working the soil, growing food and developing an awareness of the importance of nutrient stewardship for attaining a sustainable food supply and food security. There is better than getting one's nothing hands dirty and a school garden has so much potential to teach students this life skill that has been lost over the last several decades. A school garden gives many students the opportunity to grow and eat their own harvest. For some students it is the very first time that they have had the opportunity to eat what they have grown. Best homework ever!

As we continue to grow as a Foundation, 2017 gave us an opportunity to reconnect with all of our current partners as well as continue to foster valuable new partnerships.



Tamara Sealy, Executive Director, with a group of Students from PEI participating in the Light Garden program in partnership with PEIAGSC

We have always had a strong relationship with our US counterparts, but in 2017 we began work on a collaborative project that effects soil and water on both sides of our borders. We trust this is just the beginning of many projects that we can work on together as our goals are the same and food security for our planet has no borders.

Soil science and plant nutrients are not top of mind for students, but the issues of safe and quality foods, access to clean water and global food sustainability are top of mind in the classroom. Our resources help teachers and students understand these complex issues as they pertain to agriculture. Educating our future influencers on the science behind food production and the issues that we face feeding a world of nearly 10 billion people by 2050 is challenging.

We will succeed with the cooperation and support from everyone involved from the Ground Up!







Educational Outreach Program

Ray Cochrane Saskatchewan

Ray has been with NFL since 2013 and has created many connections across Saskatchewan. He has worked in Western Canada to gain teacher contacts and help teachers understand soil science and help spread the great resources offered by the Foundation. A retired educator, Ray understands the gap that exists in the education system in relation to agricultural education. As an Regional Manager, Ray assists teachers and their students as they gain an insight into agricultural and environmental sustainability.



Ray has been helping schools in Saskatchewan for the last few years and here is a example of how our learning garden programs are making a difference in the lives of students, teachers and communities in Saskatoon. Nutrients for Life awarded Mount Royal Collegiate a Learning Garden grant of \$3000 in 2016.

I had the opportunity to visit the school this past year and came away with a strong appreciation of the staff and students of the school. Mount Royal is extremely proud of their culturally diverse student population and of the many programs the school is able to offer to their students. Of the 900 students, approximately 50% is comprised of First Nation, Inuit and Métis students while another 25% are considered to be New Canadians from around the world. During my visitation, Ms. Koreen Geres introduced me to a group of ELA students who originated from a wide range of countries including Somalia, Ethiopia, Rwanda, Syria, Congo, Pakistan, Eritrea, Sudan and Thailand. Ms. Geres has spearheaded a very comprehensive compost and garden program with these students. The students are responsible for the collection, recording and compilation of data within the compost program. The compost in turn is used to nourish the school/ community garden they have developed and expanded over the past 3 years. Some of the garden harvest in turn is used to augment the school cafeteria's meal preparations. While in attendance, I had the pleasure of witnessing and participating in a student multicultural potluck meal which included salsa made with ingredients from their garden.

The garden was initially started in 2015 with one row and 6 families involved. In 2016 the garden was expanded to 2 rows and 12 families. In 2017 there were 3 rows, 21 families and 3 classrooms. Ms. Geres stated that their hope is to continue expanding their garden in order to accommodate the needs of the school and community.

Nutrients for Life would like to congratulate Mount Royal Collegiate on the effort put forth by Ms. Geres and her students for encompassing this great project which has proven to be extremely successful!



Educational Outreach Program

Tamara Sealy

Atlantic Canada and Ontario

Tamara has been with the foundation since 2014, and has worked with teachers and schools across Atlantic Canada as well as Ontario. Attending local teacher conferences and visiting schools, NFL resources are continuing to spread across Eastern Canada.



Tamara has recently worked with a local school in her community and here is their story.

Ms. Comeau, is a grade 3 teacher from Bessborough School in Moncton, New Brunswick. Any student that walks through her doors is a very lucky student. Tracey gives 110% to her students, wanting them to grow and flourish in her classroom. Ms.Comeau approached me in the fall of 2016, she was looking for ideas to implement agriculture and growing plants into her classroom. I visited her class on several occasions during the school year, focusing on the science outcomes of soils and plants, as well as her social studies outcomes on what is grown here in the province. Ms. Comeau borrowed one of our NFL Portable Light Gardens to plant and grow beans and marigolds for extra hands on learning for her students. This extra tool enabled Ms.Comeau students to plant, observe and grow and form an understanding the complexity of food production.

Ms.Comeau also implemented cross-curricular activities such as writing and art. NFL continues to support this exceptional teacher; Bessborough School was awarded a \$500.00 school garden grant in 2017 as the entire school began their outdoor school garden. NFL will continue to work with Ms. Comeau and I look forward to continuing to educate her students on the importance of agriculture and food production.





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Heigt- Suppor tall Feeling-Sort Sise of leaves- big	



Thank you Nutrients for Life for the \$500 grant. This grant will help enrich my students' learning experience by providing more unique, hands on learning activities in our Science class. In addition, the use of your light garden, soil, and seeds was an added bonus while investigating plant life.

> — **Tracey Comeau** Bessborough School Moncton, NB

Educational Outreach Program

Kent Lewarne Manitoba

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.



Kent travelled abroad again during the fall 2017 bringing Nutrients for Life resources to the Japan Super Science Fair with the Foundation's Chairman, Bob Adamson.

"I never thought that agriculture could be so interesting!"

"Perfectly perfect!"

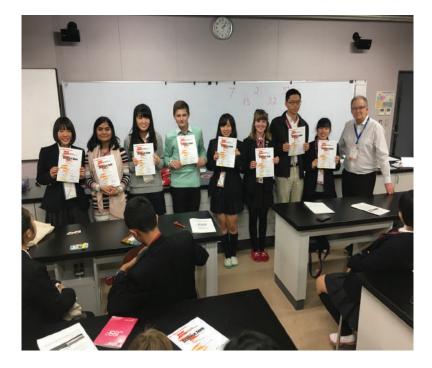
These are some of the comments that were received following the Nutrients for Life Activity at the Japan Super Science Fair (JSSF) in November 2017. Hosted by Ritsumeikan Senior High School in Nagaokakyo (near Kyoto) Japan. The event brings students from 22 countries and five continents together to discuss their research, their countries and their passions for learning.

This year, NFL Chairman, Bob Adamson and myself, led the Agriculture Zone along with other teachers from Manitoba, Canada travelling to the event. This was one of the activities that students could choose from when registering for JSSF. The Agriculture Zone had 48 students from a myriad of countries including Malaysia, Taiwan, Nepal, Russia, England, Indonesia, Sweden, Philippines, France, Singapore, Columbia, and of course, Japan. Each of the six groups had a cross section of students from around the world working together on an NFL Case Study.

In this case study, called Adanac Farm - A Sustainable Farm Plan, students are asked to test soil from three fields on a newly acquired 160 acre farm. These fields comprise 110 acres with the remainder of the land used for a farm site, or two wet to be farmed at this time. The students tested actual soil samples representing the three fields for Nitrogen, Phosphorus, Potassium and pH. Based on their results they were challenged to come up with a two year farm plan, considering the nutrients they would need to apply for optimum yield. They were also asked to manage the farm in a sustainable manner utilizing the 4R Nutrient Stewardship Principles. This would help them to address the impact of agriculture in our agroecosystems. They also monitored the water in a small stream on the property for Dissolved Oxygen, Orthophosphates, Ammonia and pH, to ensure their practises were not impacting the watershed. The final part of their task was to "think outside the box" as to how they may utilize the 50 acres of land that was not in production! And did their creativity shine through! They had duck farms, vertical farms, U-pick farms, to name a few.

Each of the six groups presented their sustainable farm plans to the group! They were fascinating. With these students leading the world soon, the challenges of feeding an ever increasing population are becoming opportunities that this generation is ready and willing to tackle!









2017 Yearbook

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





"Our school recently grew, so we needed more tools for our Grade 4's potato project"

> — Matt Turner Nose Creek Elementary Airdrie AB



Having the opportunity to be the recipient school for the Nutrients for Life grant, our students have benefited greatly. The experiences they have been afforded have been tremendous - - planning the garden space; designing and building the garden; planting seeds; tending to the plants; enjoying their 'harvest'.

Our 'Green Team' also grew from a mere 14 students to 33! We now have a light garden during winter; class Pet Plants in every classroom and at the end of each year, each graduating students leaves with their own personal green house. This has been only possible with the support from Nutrients for Life and Tamara Sealy for helping guide and support our vision for a

greener Truro Elementary School!

— Jacqui MacIntosh

Truro Elementary School Truro, NS





"Each class was able to have their own garden bed, which is really exciting"

-Teacher Hillcrest Public School Estevan, SK



"Thank you Nutrients for Life and Inside Education for making our garden what it is"

— Student Guy Weadick School Calgary, AB



— Henry G Izatt Middle School Winnipeg, MB



PEIAGSC and Nutrients for Life has been an invaluable partnership. Without the support and knowledge of Tamara Sealy, we would not be able to educate our Island students on how important plant science, 4 Rs, nutrients and health of our light gardens and spuds in tubs programs. She is instrumental in the delivery of these programs and without her and this partnership, we would be unable to run these program. Thank you Nutrients for Life on behalf of the PEIAGSC board and AITC PEI."

Laurie Loane

Executive Director, P.E.I. Agriculture Sector Council



"Inside Education is proud to partner with Nutrients for Life Canada to bring school learning gardens to life in Alberta. Together we've supported hands-on learning about healthy soil, food production and sustainable agriculture."

> — 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

2017 SCHOOL LEARNING GARDENS



2017 SCHOOL GARDENS

(\$500.00)

- Crescent Heights School, Calgary, AB
- Robert W Zahara Public School, Sexsmith, AB
- Stettler Elementary School, Stettler, AB
- Vernon Barfard School, Edmonton, AB
- Guy Weadick School, Calgary, AB
- Arbour Lake School, Calgary, AB
- Aurora Middle School, Lac La Biche, AB
- New Myrnam School, Myrnam, AB
- Outlook Elementary, Outlook, SK
- Bernard Constant Community School, Price Albert, SK
- Brunswick Elementary School, Melfort, SK
- Dr.George Ferguson School, Regina, SK
- Reynolds Central School, Melfort SK
- Grayson School, Grayson, SK
- Hillcrest Public School, Estevan, SK
- Kindersley Composite School, Kindersley, SK
- Regina Huda School, Regina,SK
- Minahik Waskahigan High School, Pinehouse Lake, SK
- St.Josphat School, Regina, SK
- Rocanville School, Rocanville SK
- St.Walburg School, St.Walburg, SK
- Canoe Lake School, Canoe Narrows, SK

(\$3000.00 OVER 2 YEARS)

- **O TRURO ELEMENTARY, Truro, NS**
- O SAINT CECILIA CATHOLIC SCHOOL, Toronto, ON
- O DAKOTA COLLEGIATE, Winnipeg, MB
- PJ GILLIAN SCHOOL, Esterhazy, SK
- O LACOMBE COMPOSITE HIGH SCHOOL, Lacombe, AB

O ALTARIO SCHOOL, Altario, AB

- Evergreen Colony School, Somerset, MB
- Henry G Izzat School, Winnipeg, MB
- Sturgeon Heights Collegiate, Winnipeg, MB
- Principal Sparling, Winnipeg, MB
- Maples Met School, Winnipeg, MB
- Elmwood Collegiate, Winnipeg, MB
- Westview School, Winnipeg, MB
- Swan Valley Regional Secondary School, SwanValley, MB
- Wingham HB School, Grey, MB
- Crystal City Early Years, Crystal City, MB
- Holy Rosary Elementary School, Milton, ON
- Holy Spirit Catholic Elementary School, Cambridge, ON
- Metcalfe Public School, Metcalfe, ON
- RJ Lang EMS School, North York, ON
- Rothesay Elementary School, Rothesay, NB
- Hampton Middle School, Hampton, NB
- Bessborough School, Moncton, NB
- Central Queens Elementary School, Hunter River, PE
- Morell Consolidated School, Morell, PE
- Salt Springs Elementary, Salt Springs, NS
- Bridgeway Academy, Dartmouth, NS
- River Hebert District School, River Hebert, NS
- Maritime Muslim Academy, Halifax, NS
- Pugwash District High School, Pugwash, NS



Atlantic 4H Senior Conference Journey 2050





I learned a lot about sustainability – *Holli*

I loved playing Journey 2050 and learning how to save our earth. Thank you – *Bradee* I learned so much more about the agriculture industry. – *4H Member*





10th Annual NFL Canada Charity Golf Tournament

Banff Springs Golf Club August 2017



-We could not have asked for a more beautiful day and gorgeous setting for this years Charity Golf Tournament







We would like to thank all participants who played a round of golf to help support our educational outreach. A huge THANK YOU to the Fertilizer Canada staff and Industry Reps who organized the day and made it a huge success.

-Tamara Sealy

Executive Director

Out and About

Nutrients for Life and Canada Wide Science Fair

NFL was pleased to sponsor another award at the 2017 Canada Wide Science Fair held at the University of Regina, Regina SK in May 2017. Regional Managers, Kent and Ray were on hand for the 4 day event.

This years winners of the Intermediate Award went to Kamron Zaidi and Austin Wu of Richmond Hill High School, Richmond Hill, ON. Their project title was, "A Comparative Analysis of Hydroponics, Aeroponics and Fogponics on Plant Growth".

GRO1000 Gardens

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.

This year Kent and Ray attended the garden opening at Renfrew Community Garden, in Calgary, Alberta and provided some hands on learning to all of the students who attended the opening.





This year NFL Canada and Communities in Bloom partnered together to offer a Communities in Bloom community school to apply for a \$500.00 School Garden Grant, in hopes to further our reach of resources across the country and hopefully foster some community partnerships through the schools and their local CIB organization. This year Eston Composite School, Eston, SK was the lucky recicipient of the award. Looking forward to watching your garden grow!



Program Outreach

Program metrics 130

Learning Gardens have now been established across Canada, impacting nearly 10,000 students



5 New Resources

Available for Teachers



48 Digital Resource Downloads



Our Regional Managers continue to impact Canadians

- 7,024 teacher interactions

DIGITAL IMPACT

TWITTER: 240,298 Twitter Impressions 9,175 Twitter Engagements

FACEBOOK: 2,314 People Reached from our Page







Thank you

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

To donate to the Foundation, visit www.nutrientsforlife.ca

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Many Thanks to our Sponsors, to help make all of this possible!



Report PotashCorp









