Winning Students Think Locally to Solve Global Issues in Lexus Eco Challenge

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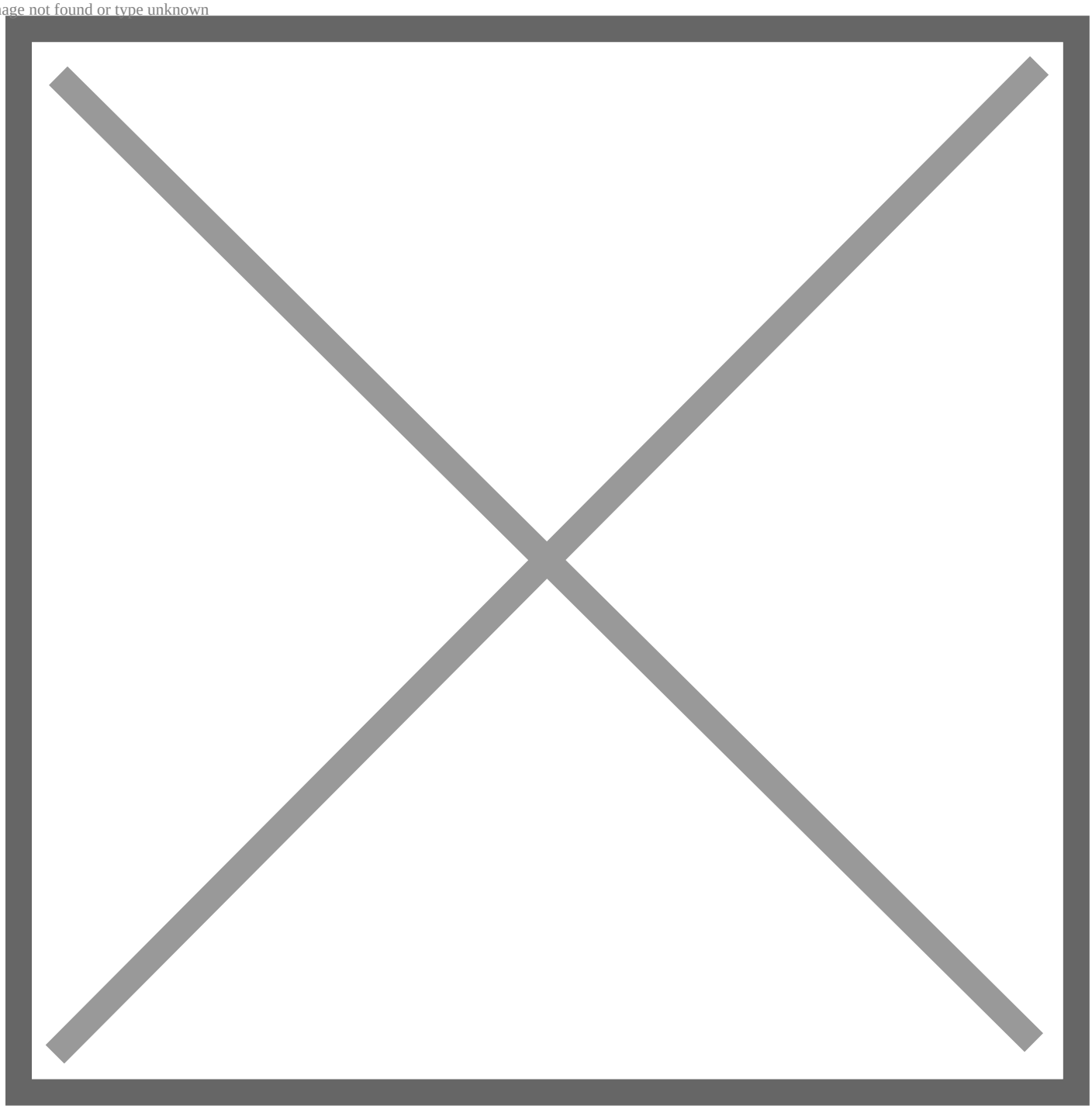

PLANO, Texas (April 19, 2019) – Think globally. Act locally. Isn't that how the maxim goes? Not for the inquisitive winners of the 12th annual Lexus Eco Challenge. By studying alternative farming methods, these students found and implemented innovative solutions to reduce pollution in their own communities and then spread their love of science, technology, engineering, and math (STEM) around the world.

More than 2,300 students in grades 6–12 participated in the Lexus Eco Challenge, an educational contest that empowers students to learn about the environment and take action to improve it. A total of $500,000 in scholarships and grants is awarded to the winning student teams, their teachers, and schools each year. To learn more about the program and winners, click **here**.

Through the first two phases of the Lexus Eco Challenge, 32 middle and high school teams were selected as finalists. Each finalist earned a $10,000 prize to be shared among the team, teacher, and school, and was invited to embark on the final challenge to reach beyond their local community to inspire environmental action. The teams communicated their innovative ideas to a wide audience in the last round, broadening the reach of their work to people outside their communities.

Lexus and Scholastic, the global children's publishing, education, and media company, reviewed the finalists' innovative submissions and selected one middle and one high school team as the 2018–19 Lexus Eco Challenge Grand Prize winners. The Grand Prize–winning teams each receive an additional $30,000, divided into a $7,000 grant for the school, a $3,000 grant for the team's teacher advisor, and $20,000 in scholarships for the students to share. Eight First Place–winning teams are awarded an additional $15,000 in grants each.

This year's high school Grand Prize–winning team is the Aquapals from Arlington High School in Lagrangeville, New York. The Aquapals and teacher advisors Tricia Muraco and Maribel Pregnall focused on utilizing aquaponic farming techniques to reduce polychlorinated biphenyls (PCBs).

"Our team was surprised to discover the impact of polychlorinated biphenyls on the economy of our area in the Hudson River Valley," said team member Spencer Koonin. "The lack of government pressure to clean up Superfund sites caused by PCBs and the historical loss of so many fisheries was shocking. We had to take action!"

From their research, the students generated a 35-page manual for aquaponic farming, which they shared with local students and legislators to encourage change within the Hudson River Valley. After establishing five aquaponic systems and presenting to over 1,000 students close to home, they turned their attention abroad, collaborating with 14 farmers in eight countries.

"The most important tool at our disposal was social media," said Krishna Koka. "Through our presence on Instagram, Facebook, and Twitter, we were able to show our progress to farmers across the planet."

"The Lexus Eco Challenge enabled our students to see the interconnection between science and their everyday lives in the community around us," said teacher advisor Tricia Muraco. "Then it pushed them to find those connections around the country and the world. They took what they learned, became master communicators, and made political, societal, and educational impacts with everyone they met along the way."

"We learned that the plight of water contamination is shared by many around the world and that aquaponics is a solution that can help us all," said Emme Magliato. "Though we live 9,000 miles away from Rusman in Indonesia, aquaponics have now provided both our communities with new options to produce safe and sustainable food."

The Grand Prize–winning middle school team was Food Miles Matter from North Broward Preparatory School in Coconut Creek, Florida. With the help of teacher advisor Hope Kennedy, the team tackled the problem of greenhouse gas emissions generated by interstate produce transport. Looking to eliminate “food miles” generated by trucked produce from the diets of their classmates, the team partnered with their school cafeteria staff to identify and grow fresh produce in the school garden, just feet from where it would be eaten!

“Our garden is very big and uses both aquaponics and aeroponics,” Ryan Folic explained.

The Grand Prize—and First Place—winning teams that best addressed environmental challenges are listed below.

Final Challenge		
State, City **School Name**	**Team Name**	**Project Summary**
High School Grand Prize Winner		
NY, Lagrangeville Arlington High School	Aquapals	Utilized aquaponic farming to combat PCB pollution in local water supplies. Developed a manual for replication around the world.
High School First Prize Winners		
AL, Birmingham Hoover High School	BioBucs	Studied the effects of trees on particle pollution. Deployed new technologies in their community and developed a long-term environmental research program.
TX, Frisco Lebanon Trail High School	Special STEMs	Comprised of five students from their school’s Functional Academics program and five general education students, researched and advocated for strategies to reduce waste generated by agriculture.
MO, Creve Couer Parkway North High School	S.U.N. (Storing Underground Nutrients)	Developed a custom biochar fertilizer to combat the negative effects of traditional products. Discovered alternative applications and uses for around the globe.

CO, Lafayette Peak to Peak Charter School	Endanger Changers	Developed interactive digital games and extensive, multilingual educational materials to raise awareness for local species protection.
Middle School Grand Prize Winner		
FL, Coconut Creek North Broward Preparatory School	Food Miles Matter	Tackled greenhouse gas emissions generated by interstate produce transport by reducing their school's food miles utilizing a community garden.
Middle School First Prize Winners		
KY, Lexington School for the Creative and Performing Arts	The Bagstreet Boys	Combated the negative impact of single-use plastic bags with an extensive community action plan.
CA, Olivehurst Arboga Elementary School	The Arboga Wild Fighters	Studied and educated their community on the environmental impacts of wildfires on Northern California. Became community activists when the project was interrupted by the catastrophic Fall 2018 Paradise Fire in their own backyard.
UT, Holladay Olympus Junior High	Fanplastics	Developed wind turbine kits from recycled plastic bottles to simultaneously reduce landfill waste and generate renewable energy. Partnered with a major solar company to manufacture and distribute their kits around their community and the world.
NJ, Jersey City P.S. 28 Christa McAuliffe School	C02 A.P.T	Developed a proprietary technology awaiting patent approval that actively reduces C02 and measured C02 levels in their surrounding community.

Over the past 11 years, the Lexus Eco Challenge has awarded more than $5 million in scholarships that have helped more than 33,000 middle and high school students have an impact on their communities, learn about the environment, and improve their teamwork skills.

The Lexus Eco Challenge also provides supplemental educational materials, created and distributed by

Scholastic, to encourage teachers to integrate creative environmental lesson plans into their classrooms. For each year's challenge, the website has lesson plans and teacher instructions, including questions to help guide a discussion about the current challenge topic, facts about the topic, and guidelines for a specific classroom project.

The Lexus Eco Challenge is part of **The Lexus Pursuit of Potential**, a philanthropic initiative that generates up to $3 million in donations each year for organizations that help build, shape, and improve children's lives.

Lexus will open the 13th annual 2019–2020 Lexus Eco Challenge this fall with $500,000 in prize money for eligible students, teachers, and schools. Information on how students and teachers can participate in the "Land and Water" and/or "Air and Climate" challenges will be available this **summer**.