

Student Scientist Nominated for STEM Pre-College Scholarship for Research Work Done in Alternative Energy System Design



Miles Frierson

Green chemistry is a growing area in the field of science. It covers everything from polymer science to biofuels to sustainable agriculture. As natural resources become more scarce and demand for consumption of these resources increases it is important that alternative feedstocks are identified and new ways of meeting growing demand are developed.

On July 30, 2014, Miles Frierson, a 8th grader at Derby Middle School in Birmingham, Michigan and a student scientist in the Ecotek Lab Program, was nominated to receive a \$2k pre-college scholarship to attend Michigan State University upon his graduation from high school. His nomination was a direct result of the quality of knowledge and effort he demonstrated while attending the MSU Bioenergy summer science camp in June 2014.

Miles is the third student scientist from the Ecotek Lab program to be nominated for the scholarship. Other nominees include Demarius Clemons (Renaissance High School) and Raynisha Pannell (Detroit Edison PSA). To prepare for the MSU Bioenergy Program Miles along with Nydea Terrell, constructed a working prototype of an anaerobic biodigester using horse manure as the feedstock. An anaerobic biodigester is used to produce methane gas using a temperature controlled biochemical conversion process. The duo also presented their work at the 2014 Stewardship Network Conference.

In addition to doing research work in bioenergy, Miles has studied the benefits and drawbacks of wind farms. The goal of his research is focused on developing best practices for developing wind energy resources in urban communities and increasing the storage efficiency of capacitors. Earning the pre-college scholarship is an indication that Miles is on the right track and has a great future in the field of science, technology, engineering and math (STEM).

About the Ecotek Science Program

Ecotek is a science research lab program for young inventors and researchers in grades 5 thru 12. Student scientists work on projects aligned with the issues being addressed by world leaders at the United Nations. To learn more about Ecotek Lab go to <http://www.ecotek-us.com>