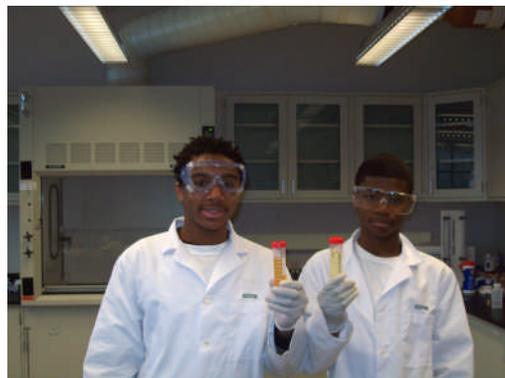


Ecotek Student Scientists Create Biodiesel from Soybean Oil

With the fluctuating price of oil and continuing depletion of fossil fuels, the world community is looking for other sources of energy. One area that has received a lot of attention is biofuel or energy that comes from agricultural material such as corn. Biodiesel consists of mono alkyl esters produced from vegetable oils, animal or old cooking fats.

Soy biodiesel is made through a chemical process called transesterification whereby the glycerin is separated from the soybean oil. The process gives two products: methyl esters (the chemical name for biodiesel) and glycerin (used to make soap). The use of biodiesel in a conventional diesel engine results in substantial reduction of unburned hydrocarbons, carbon monoxide, and soot.

A group of Ecotek student scientists, Chris Anderson, Keith Young Jr and Emmanuel Thomas Jefferson, were so interested in the topic that they decided to make their own biodiesel from soybean oil. To make the biodiesel required that the team follow a stringent manufacturing and quality control process, such as breaking down the triglycerides in the oil and running combustion, chromatography, and viscosity tests on the methyl ester.



The knowledge that the team gathered from their work in the lab will help them when they travel to the United Nations in New York City to meet with world leaders to discuss the viability of biofuel on behalf of Chad. It will also help them when they share their research with attendees at the Michigan AgriEnergy Conference.

Now that the team has started down the biodiesel road, there is no turning back. They are now working on plans to convert switch grass, algae and other cellulose based material to biofuel.



About the Ecotek Science Program

Ecotek is a program within the Motor City Model UN Club, a 501c3 organization. It provides students ages 10 to 17 with the opportunity to work on science projects to help them better understand the role that science plays in policy making within international organizations like the United Nations. The students work on a diverse set of projects ranging from combating AIDS to protecting the environment. Once they have reviewed the UN treaties and have completed their lab research, the students meet with world leaders at the UN to share what they have learned.

To learn more about the program and the students highlighted in this press release, please contact Keith Young at 313-399-7893 or email him at keiyoung@ecotek-us.com