



Council for Agricultural Science and Technology

The following essay won the state award for Wisconsin in the “Boundless Science for Bountiful Agriculture 2003” essay contest for 6th, 7th, and 8th graders. The contest is sponsored by CAST, with support from the U.S. Department of Agriculture’s Cooperative State Research, Education and Extension Service. More than 800 entries were received from 40 states, the District of Columbia, and the U.S. Virgin Islands.

Ethanol, a Renewable Fuel

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Ethanol is a renewable alcohol fuel made mostly from agricultural resources. It is basically produced from the starch found in grains; such as, corn, grain sorghum, and wheat. It can also be produced from food and beverage processing wastes. Research is being done that will enable ethanol to be made from cellulose, which includes: corn stalks rice straw, and switchgrass. Ethanol can greatly improve American agriculture, the economy, and the environment.

Ethanol can successfully improve American agriculture by adding value to farm products. Farm-owners, today, lead the way in the ethanol industry growth, which is the third largest market for corn. Many farmers today are investing in ethanol plants and are getting a higher price for their grain and a share in the plants' profits. Plants built around a town can increase the price of a bushels of corn from five to ten cents. The production of ethanol can improve the agriculture of this country in so many different ways and research is being done on these ways of powering the future with ethanol.

Ethanol and ethanol plants can also improve the economy in several ways. Ethanol plants increased employment by one hundred ninety-two thousand jobs in the United States. The production of ethanol, from grain, increases the value of grains, so that corn for two dollars a bushel is boosted to five to six dollars worth of ethanol. By increasing employment and the value of grains, and many other ways, ethanol can improve the economy.

Ethanol reduces air pollution and toxic gas emissions because it is a fuel which contains oxygen that is good for the environment. Combining ethanol with gasoline extensively reduces carbon monoxide that is responsible for as much as twenty percent of smog formation. It reduces carbon monoxide that produces a threat to people with respiratory illnesses such as asthma. The production of ethanol is a very energy efficient process. An analysis done in 2002 found that ethanol contains thirty-four percent more energy than what is used in the production process.

Ethanol, a renewable fuel resource is an excellent way to improve American agriculture, the economy, and the environment. Not only does ethanol improve these examples, but the production and research of ethanol has many other uses and benefits that can help the United States and the world. Farmers are ready, willing, and able to lead the United States toward energy independence just as other countries have already done. By these few examples, and numerous others, the research, production, and the using of ethanol can improve the lives of the people in our country.

Reference:

Renewable Fuels Association. 2002. Homepage, <http://www.rfa.org/student_ag.html>