

Anti-Ethanol Myths, Misinformation and Hot Issues

Background

The increase in oil prices and the government's call for greatly increased renewable fuels mandates has caused a surge of interest and investment in ethanol. This new ethanol fervor has brought out a disproportionate amount of critics citing wildly exaggerated rhetoric, which threatens consumer confidence in this renewable fuel. General Motors is convinced that biofuels are the best near-term alternative to oil, and ethanol is the biofuel most likely to reduce our demand for oil.

Below is a brief summary of some of the anti-ethanol myths and misinformation along with a rebuttal argument.

Food versus Fuel – Using corn for ethanol takes away from those supplies that could be used for human food or animal feed, and increases overall food prices.

Not true. Each year there is an average 1 billion bushel corn surplus. This will be true for 2007. In response to greater demand, farmers planted the largest corn crop since 1944 and corn prices already are coming down in response. Additionally, ethanol production yields co-products including distillers grain, a high-protein animal feed. The relatively small increases in food prices in 2007 have been attributed to increased energy costs (oil cost). (Source: USDA and National Corn Grower's Association (NCGA))

Food versus Fuel – You can feed a man for a year on one SUV fill-up of E85 ethanol.

The premise of this assertion is flawed, unrealistic and inflammatory. You must assume one could live on five bushels of corn for this to be possible. The National Corn Growers Association has demonstrated that those who make this claim leave out the fact that most U.S. corn is for livestock feed. Feed requirements can be met with use of distiller's grains. It is important to note that most of the distiller's grains produced in the U.S. are exported. (Source: NCGA)

Food versus Fuel – The increased use of corn to produce ethanol in the U.S. has caused increased prices of tortillas in Mexico.

White corn in Mexico is protected with a tariff against U.S. corn. The tortilla crisis was a result of speculation, not real world corn prices. (Source: USDA and NCGA)

Food versus Fuel – Milk prices are rising due to increased corn price.

Milk prices are set by a formula under regional Milk Marketing Orders, the main component of which is supply and demand of dry milk powder, whey powder and cheddar cheese. The regional MMO sets the price bottlers must pay farmers for milk. The prices are high now, thanks to a supply shortfall driven by global trends, including dairy policies in Europe, a long-term drought in Australia, growing demand for milk powder in Asia and the rapid growth of cheese consumption in the United States. Those trends have raised the base price of milk paid to California dairy farmers. (Source: Renewable Fuels Association (RFA), USDA, USGAD)

Net Energy – It takes more energy to make a gallon of ethanol than that gallon delivers.

False. Current research prepared by Argonne National Laboratory (a U.S. Department of Energy Laboratory), indicates a 34% gain in the overall energy input/output equation for the corn-to-ethanol process. That is, if 100 BTUs of energy is used to plant corn, harvest the crop, transport it, etc., 138 BTUs of energy is available in the fuel ethanol. Corn has a positive energy return and future cellulosic biomass will be even better.

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It is worth noting that in fact, *gasoline* has a negative net energy of .87, meaning it takes 13 percent more energy to produce than it delivers. (Source: ANL)

Poor performance – Vehicles running E85 get poor fuel economy, meaning it costs more to run E85 than gasoline.

There is about 15-20 percent fuel economy degradation with E85 versus gasoline. However, if the price of ethanol is at least 15-20 less than gasoline, it is an economic benefit to the consumer. Additionally, there are other benefits to running E85, including reduced greenhouse gas emissions and reduction in dependence on foreign oil. (General Motors)

Questionable Commercial Viability – The development of a robust cellulosic ethanol industry will never be commercially viable.

We're nearly there already. There are six cellulosic plants underway in the U.S. These plants promise commercial breakthroughs leading to greatly improved cost per gallon. For now, demand on grain-based ethanol is necessary to spur investment into biomass. The first of the six cellulosic plants under construction is expected to go online this year. (Source: US Department of Energy (DOE))

Not enough land – There is not enough farmland to support the amount of corn needed to produce significant amounts of ethanol. We'd have to clearcut forests to get more land.

There are more than 300 million acres of active cropland in the U.S. In 2007, approximately 90 million acres of corn was planted. Only about 5 percent of corn is for human consumption. The rest is for feed, fuel and export. Also, corn yields double every generation through technology, so our farmers are getting better at growing more on less land. (Source: USDA)

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Never enough ethanol – We could not create enough ethanol in the U.S. to significantly offset the use of fossil fuels.

Studies, including two by the DOE and USDA, have proven we can produce 60 billion gallons, on an energy equivalent basis, and potentially offset fossil fuel use by 30% or more by 2030.

Erosion and other environmental issues – Increasing corn growth will lead to soil erosion and water contamination due to increased use of fertilizer and pesticides.

This is a persistent claim with all agriculture efforts. The rate of controlled pesticide use, better land management techniques, and bio technologies are improving all aspects of farming. Corn farming is regulated and will continue to be watched. And in the near future, the greatest potential will be realized as cellulosic biomass is converted to fuel and other uses. (Source: RFA and USCGA)

Water Waste – Significant growth in the production of ethanol will stress available water supplies in local/regional municipalities.

This is an issue, but not an unmanageable one. Ethanol production is water intensive, but technology is improving. It used to take 5 gallons of water to make a gallon of E85 ethanol. Today, it takes about 3 gallons. Ethanol facilities recycle some of water in the process. Gasoline also uses water in production. Technology improvements and better recycling techniques will improve the process. Proper permitting will help prevent issues from arising in local areas. (Source: Clean Fuels Development Coalition and Institute for Agriculture and Trade Policy)

Carcinogens – Use of E85 ethanol will lead to increased smog and health effects.

This assertion has no basis in fact. There was a study published by Stanford University indicating E85 was no better or worse than gas. The media misinterpreted the study. The actual study inputs have been questioned by a number of key people, including the Natural Resource Defense Council, which has asked for a blue ribbon review.

Climate Change – The use of E85 ethanol does not reduce CO2 emissions.

The opposite is true. Today's ethanol production reduces greenhouse gas emissions by an average of 20 percent (more than 25 percent in the newest plants). Cellulosic ethanol production will reduce emissions by more than 90 percent compared with gasoline. (Source: Argonne National Laboratory)

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Contact:
Dan Bedore
dan.bedore@qm.com
313.665.9967