Discovering the Fuels of the Future

What are biofuels?

Biofuels are liquid fuels, such as ethanol or biodiesel, made from biomass. These fuels can be made from:

- Corn
- Sugar cane
- Soybeans
- Algae
- Vegetable oils
- Manure

Biofuels can be used to run cars, trucks, and hopefully in the future, ships and airplanes.

Ethanol, also known as ethyl alcohol or grain alcohol, can be used either as an alternative fuel or as an octane-boosting, pollution-reducing additive to gasoline.

Biodiesel is another biofuel that is available to the public. Biodiesel can be produced from straight vegetable oil, animal oil/fats, tallow and waste cooking oil. Most biodiesels are produced from waste vegetable oil from restaurants, chip shops, and industrial food producers.

Can I put biofuels in the car I have now?

Yes, most of today’s commercially available vehicles can run on blends of E10, this is a blend of 10 % ethanol and 90 % gasoline. This E10 blend is the lowest concentration available. It can be put in cars currently on the street and it can also help reduce air pollution.

Biodiesel is also available and is usually a B20 blend, 20 % biodiesel and 80 % petroleum diesel. Biodiesel is normally used in vehicle fleets, but is also available to any consumer driving diesel vehicles.

Where can I get biofuels?

Biofuels are available at pump stations across the U.S. but are more common in the Corn Belt:

- Minnesota
- Iowa
- Illinois

The places alternative fuels are available continues to grow, with ethanol offered in more than 40 states and biodiesel stations in about 30 states.

What are the advantages to using biofuels?

- Reduction of green house gases
- Cheaper than gasoline
- Renewable energy source
- Produced locally/Creates new jobs
- Perform just as well as regular fuels
- Superior lubricating qualities/Engines will last longer
- Biodegradable
- Nontoxic
What are the disadvantages of biofuels?

- Need for more land to grow designated energy crops
- Higher consumption rate in vehicles
- High start up cost for producers
- May affect food prices
- Requires massive quantities of water
- Leaves your car with the smell of fried foods

Summary
Although the amount of information about the long term effects of ethanol production and use is still being learned, the current evidence shows that the positive effects outweigh the negative. The only way to learn about the success of ethanol in the long run is to continue expanding its use across the country. As the industry grows and the number of pump stations increases ethanol becomes more readily available in more countries hopefully helping reduce the pollution caused by transportation.

References


