

Alternative Fuel - Biodiesel Making In-Roads

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The use of the fuel known as biodiesel is growing in America--quite literally. Biodiesel is produced by combining organic oils, from any of a number of sources, with alcohol or petroleum diesel fuel. The organic oil is most often obtained from soybeans, but many other plants have shown potential, including canola and rapeseed.

Biodiesel can even be made at home. In fact, Biodiesel America tells its members that they can make biodiesel for as little as 50 cents a gallon using recycled cooking oil, assuming the oil is free. That may seem unrealistic, but there are many vehicles on the road today that use biodiesel fuel based on free oil from restaurants. Since restaurants generally have to pay to dispose of their used grease, they're often willing to give it to a vehicle owner who wants to take it off their hands. Otherwise, they often have to pay as much as \$150 per 50-gallon drum to have used grease hauled away.

Biodiesel America has a lofty goal of converting 100,000 school buses to run on biodiesel by the year 2010. The purpose of their project is not only to significantly lessen America's fuel dependence on foreign countries, but they also are determined to lessen greenhouse gas emission, as well. According to the National Biodiesel Board, the amount of carbon monoxide emitted from a biodiesel engine averages 48 percent less than a similar engine running of "regular" diesel. Therefore, converting 100,000 school buses would represent a significant reduction in pollution.

Much of the raw material for biodiesel comes from Midwestern soybeans. It's not uncommon in the Midwest to see pumps that sell biodiesel right alongside other fossil fuels. Renewable fuel has proven to be a newfound way for farmers to sell their crops, which will allow more farmers to stay on the land, which is an important side benefit to the overall biodiesel production process.

However, soybeans aren't the only crops that may have important uses in the creation of biodiesel. Scientists at the University of Alaska-Fairbanks have been experimenting with the use of canola oil in creating biodiesel, and have had promising success. An important added benefit to using canola is that the plant will not only grow in Alaska, but the added amount of daylight available during Alaska summers creates a canola that contains a significantly higher oil content than when its grown on the mainland of the United States. That means Alaska could grow its own biodiesel plant components, lowering shipping costs and increasing efficiency.

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