

DaimlerChrysler, U.S. National Renewable Energy Laboratory Promote Use of Clean, Renewable Biodiesel Fuel

- Using crops to reduce reliance on petroleum, lower greenhouse gas emissions
- Research addresses challenges for wider use of renewable fuel
- 2005 Jeep Liberty CRD Diesel SUV fueled with biodiesel at the factory

Expanding the market for fuel-efficient diesel-powered passenger vehicles in North America could reduce the nation's use of oil by one billion gallons in the first year alone and cut carbon dioxide emissions by two million tons.

Blending clean, renewable biodiesel into the fuels could cut another 1.7 billions gallons from the nation's need for oil in the coming years. And biodiesel reduces carbon dioxide emissions 80 percent compared with gasoline.

DaimlerChrysler is taking the lead among automakers in demonstrating the benefits of biodiesel by fueling each new 2005 Jeep Liberty CRD diesel-powered SUV with B5 (5 percent biodiesel) fuel at the Jeep assembly plant in Toledo, Ohio. The biodiesel fuel is produced from soybeans grown in Ohio.

The Jeep Liberty CRD diesel, the first diesel-powered mid-size SUV to be offered in the United States, hit the U.S. market this spring.

Diesel-powered vehicles use 30 percent less fuel on average than comparable gasoline-powered vehicles. Diesel vehicles also emit 20 percent less greenhouse gas, primarily carbon dioxide.

"With biodiesel, we can increase these benefits even further," said Dieter Zetsche, Chrysler Group President and CEO. "And because biodiesel is made from renewable resources, we reduce our dependence on petroleum for our transportation needs."

The Jeep Liberty takes advantage of new direct-injection common-rail technology that significantly improves efficiency and reduces emissions by exactly calibrating the amount and pressure of fuel injected into the engine's combustion chambers. The Liberty CRD diesel achieves 21 mpg city and 26 mpg highway, nearly 30 higher than Liberty's comparable 3.7-liter V-6 gasoline engine.

The benefits of clean, renewable biodiesel and the Jeep Liberty CRD fueling program were discussed at a recent event hosted by the U.S. Department of Energy's National Renewable Energy Laboratory in Golden, Colorado.

B5 fuels are already widely used in Chrysler Group diesel engine vehicles in Europe, where diesel-powered vehicles currently make up about 42 percent of new passenger vehicle sales. With the same market share in the U.S., diesel-powered passenger vehicles would reduce oil consumption by up to one billion gallons in the first year, and an additional one billion gallons saved each succeeding year, based on current new vehicle sales, fuel economy and driving habits.

Biodiesel fuel reduces emissions of particulate matter, hydrocarbons and carbon monoxide. In addition, the biodiesel portion of the fuel significantly reduces the amount of carbon dioxide released into the atmosphere; about 80 percent of the carbon dioxide released when the fuel is burned is matched by the amount of carbon dioxide absorbed by soy plants during growth.

DaimlerChrysler is working with the biodiesel industry, petroleum industry, government, and standard-setting organizations to establish standards for biodiesel fuels. That would clear the way for broader use of B20 (20 percent biodiesel) fuels in the U.S. market.

Currently, many Dodge Ram diesel pickup trucks are running successfully on B20 (20 percent biodiesel) in fleets required to use alternative fuels by the Energy Policy Act of 1992 (EPACT). However, there are currently no standards to guarantee consistent quality of B20 fuels. Thus, DaimlerChrysler currently recommends its diesel vehicles be run on a biodiesel blend of maximum 5 percent (B5).

Conventional diesel fuel is currently available in about one-third of all filling stations in the United States.

Biodiesel blends of up to 5% concentration (B5) are available in public fueling stations at certain locations across the country, particularly in areas with substantial soybean farming. Beginning this year, 2 percent biodiesel (B2) is required for all diesel fuel in Minnesota. Missouri and Delaware are considering similar mandates.

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