



National Biodiesel Board
800-841-5849
www.biodiesel.org

Biodiesel Backgrounder

Liberty and the Pursuit of Biodiesel: OEMs Make Strong Statements

No matter your diesel vehicle of choice, chances are good that its original equipment manufacturer (OEM) approves use of biodiesel blends in it. From SUVs to ATVs, OEMs are writing biodiesel into their warranty statements. New Holland became the first to fully approve of B20 in all of the tractors and equipment it currently produces. DaimlerChrysler has fueled its Grand Cherokee CRDs, Jeep Liberty CRDs and Dodge Ram Heavy Duty Diesels with a 5 percent blend of biodiesel (B5) at the factory. It also approves up to B20 in fleet use of the Ram. Every major U.S. automaker approves of up to B5 use, while many are working towards full B20 approval. Arctic Cat introduced the first diesel ATV, and suggests B20 as one of the fuels on which it can run. J.D. Power & Associates estimates the diesel share of U.S. light-vehicle sales will go from 3.2 percent to more than 10 by around 2015.



Minn. farmer Ed Hegland's New Holland

Biodiesel Industry Triples Production in One Year

From the plant to the pump, the biodiesel industry continues growing steadily -- if you consider tripling in one year steady. Biodiesel volumes rose from 25 million gallons in 2004 to 75 million gallons in 2005, and are expected to double or triple again in 2006. The federal blender's tax incentive has been a driving factor in the production growth, and hundreds more distributors and retail pumps also now offer the fuel. The legislation has been effective in lowering the price of biodiesel blends for consumers.



Crosby Stills Nash & Young uses biodiesel

"FAME" Stands for More Than Just "Fatty Acid Methyl Esters"

From the President to Willie Nelson, biodiesel has some well-known champions behind it. "It makes a lot of sense for us to continue to invest in biodiesel technologies to make the production process even more efficient," said President George W. Bush. "Technology will enable us to be able to say we can grow our economy and protect our environment at the same time." Just when you thought environmentally friendly fuel couldn't get any cooler, singers ride into town on biodiesel buses. Pearl Jam, Barenaked Ladies, Melissa Etheridge, Guster, Indigo Girls, the Black Crowes and many more are using the fuel on their nationwide tours. Willie Nelson, Neil Young and Bonnie Raitt continue to use and promote the fuel.

BQ-9000 Companies Multiply

From November 2005 to November 2006, the number of fuel suppliers completing the BQ-9000 program increased six-fold to 17. BQ-9000 is a voluntary quality assurance certification program that includes procedures for fuel storage, handling and management aimed at ensuring fuel quality throughout distribution. This program, helping to ensure fuel meets ASTM spec, has two categories: accredited producer and certified marketer. Accredited producers represent more than 40 percent of U.S. biodiesel capacity.



States' Political Support Grows

State-use requirements, incentives for production and grants are just some of the ways state governments have supported biodiesel. To boost the economy and promote cleaner-burning fuels, several states adopted state energy initiatives that will likely increase biodiesel availability and use. The National Biodiesel Board (NBB) tracked more than 275 pieces of biodiesel-specific legislation in the 2006 state sessions. Examples include Iowa requiring 25 percent of retail fuel sales be renewables by 2020, and Washington requiring volumetric 2 percent biodiesel.



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Pumped-up Sales of Biodiesel

Cities like Austin, Las Vegas, Greenville, S.C., and Boise reflect a recent trend – more biodiesel retail pumps. Austin alone has more than 30 B20 pumps! Nationally, the number of pumps offering biodiesel blends rose from 600 to 1,000 in 12 months, according to NBB estimates.

Pumping Up America's Bottom Line

Biodiesel significantly contributes to the U.S. economy in multiple ways, according to economic analysis completed in September 2006 by John M. Urbanchuk of LECG. The study found:

- America's biodiesel industry will add \$24 billion to the U.S. economy between 2005 and 2015, assuming biodiesel growth reaches 650 million gallons of annual production by 2015.
- Biodiesel production will create a projected 39,102 new jobs in all sectors of the economy.
- Additional tax revenues from biodiesel production will more than pay for the federal tax incentives provided to the industry, keeping \$13.6 billion in the U.S. that would be spent on foreign oil.

Market Focus

Biodiesel May be Welcome Addition to Ultra Low Sulfur Diesel

When diesel goes through the refining process to become the required on-road Ultra Low Sulfur Diesel (ULSD), lubricity is reduced and must be replaced for the health of engines. Biodiesel acts as a lubricity additive and has been seamlessly blended with regular diesel for years. Petroleum professionals can add a lubricity agent at the terminals, to aid ULSD. Dozens of terminals are starting to blend biodiesel on-site. Biodiesel in just a B2 blend can fully restore lubricity, giving a higher level of engine protection and potential longevity.

"BioTruckers" Hit the Road – and the Pumps

As truckers and other motorists increasingly demand biodiesel, a toll-free number will help them find pumps anywhere in the U.S. Operators staff the Biodiesel Hotline -- 866-BIODIESEL -- 24/7. Truckers and Volkswagen drivers alike will have access to mapping software linked to a database that is populated and kept up to date with retail outlets carrying biodiesel. Information including truck accessibility and blend percentage is available from the database. Based on a recent survey, truckers say less dependence on foreign oil and support for U.S. farmers are the top two reasons to use biodiesel. Many truckers also say biodiesel reduces wear and tear through increased lubricity, and improves performance.



BioTrucker Gene Dunlap



Bioheat® Fuel Goes Mainstream

Representing a potential market of more than 50 million gallons, Bioheat® fuel has made its mark – via a logo. Made from a combination of biodiesel and generic heating oil, Bioheat fuel improves the overall operations of heating systems. Fuel dealers blend biodiesel meeting the ASTM specification of D 6751 with ASTM D 396 heating oil. The resulting product can be run in heating systems. The NBB and National Oilheat Research Alliance (NORA) recently trademarked the term and launched the official logo for this product. Dealers can register through NORA to use the term and logo.

NREL Releases Data on NOx, ULSD

The U.S. Department of Energy's National Renewable Energy Laboratory (NREL) has made a groundbreaking finding on biodiesel. A new study shows that NOx emissions from B20 are likely to be neutral in real-world applications. Further, another NREL study discovered that using biodiesel and ULSD offers a performance benefit over ULSD alone, beyond increasing lubricity. Testing results show that when biodiesel is blended with ULSD at 5 or 20 percent, the required temperature for soot combustion is much lower. This means that the 2007 engines' diesel particulate filter (DPF) clogging with soot is less likely to occur. Also, even with a DPF in place, B20 provided an additional 67 percent reduction of particulate matter.

Positive NOx findings, and biodiesel's drastic reduction of other emissions, helped spur the first-of-its-kind Air Quality and Alternative Fuel Forum, held in September '06. It brought together health leaders and top experts from across the nation, and was hosted by regional American Lung Associations.



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