

Biodiesel is:

Biodiesel is **America's advanced biofuel**. It is a drop-in diesel alternative, made from domestic, renewable resources such as plant oils, animal fats, used cooking oil and even new sources such as algae. Biodiesel contains no petroleum, but can be blended with petroleum diesel. Biodiesel blends can be used in compression-ignition (diesel) engines with little or no modifications. Biodiesel cuts carbon significantly, and is simple to use, biodegradable, nontoxic, and essentially free of sulfur and aromatics.

Biodiesel is not:

Biodiesel is not raw vegetable oil. Fuel-grade biodiesel must be produced to strict industry specifications (ASTM D6751) in order to ensure proper performance. Only biodiesel that meets the spec and is registered with the Environmental Protection Agency is a legal motor fuel.

Biodiesel is not the same as renewable diesel. While both fuels can be made from similar feedstocks, they are made using different production processes and the resultant fuels have different properties.

Biodiesel is not the same as ethanol. Ethanol is produced primarily from fermentation of corn and cellulosic materials and is designed for use only in gasoline engines. Biodiesel is made from the oil and fat by-products of producing high quality proteins which help feed the world, and is a high BTU content fuel designed for use only in diesel engines.

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BIODIESEL MYTHS

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www.biodiesel.org

www.americasadvancedbiofuel.com





MYTH: Does not perform as well as diesel

FACT: Biodiesel has **higher cetane** than U.S. diesel fuel. B20 (20 percent blend of biodiesel with diesel fuel) provides similar **fuel economy, horsepower, torque,** and **haulage rates** as diesel fuel. Biodiesel also has superior **lubricity**, and it has the **highest BTU content** of any alternative fuel.

MYTH: Takes more energy to produce than what it returns

FACT: Biodiesel has the highest energy balance of any fuel, returning 5.5 units of energy for every unit of fossil energy needed to produce it.

MYTH: No objective fuel standard exists

FACT: Just like gasoline and diesel, biodiesel has fuel quality specifications. ASTM's original specification for pure biodiesel is **D6751**. Other ASTM specifications include:

- Blends of diesel and biodiesel, from 6 to 20 percent (**D7467**)
- Biodiesel blends up to B5 in diesel fuel (**D975**)
- Home heating and boiler applications (**D396**)

MYTH: Doesn't work in cold weather

FACT: Properly managed, high quality biodiesel blends are successful in the **coldest of climates**. Just like No. 2 diesel, biodiesel will gel in very cold temperatures. Although pure biodiesel has a higher cloud point than No.2 diesel, blends of 20 percent biodiesel are usually managed with similar techniques. Blends of 5 percent and below have virtually no impact on cold weather operability. See www.biodiesel.org/using-biodiesel/handling-use/cold-weather-guide for more information.

MYTH: Fuel quality is inconsistent

FACT: Studies by the National Renewable Energy Laboratory show the biodiesel industry has substantially met national fuel quality standards. Plants certified under **BQ-9000**, the industry's quality assurance program, consistently hit the quality mark. Biodiesel production facilities certified under the program represent **more than 90 percent** of the U.S. commercial biodiesel market volume.

For more information on the BQ-9000 quality program, visit www.bq-9000.org.

For more information on sustainable biodiesel, visit www.biodieselsustainability.com

MYTH: Use voids manufacturers' engine warranty coverage

FACT: Use of biodiesel in and of itself **does not void the parts and workmanship warranty** of any vehicle or engine manufacturer. And users of high quality B20 and lower blends meeting the latest stringent ASTM standards report performance is as good as—if not better than—petrodiesel alone. Most manufacturers do make fuel recommendations, and biodiesel blends up to B5 are fully supported by all major manufacturers producing diesel equipment for the U.S. market. In the GVW Class 5-8 vehicles that account for 92 percent of on-road diesel fuel use, nearly 90 percent of the medium- and heavy-duty truck OEMs support up to B20, many of them for over a decade. For specific statements from manufacturers, visit www.biodiesel.org/resources/oems.

MYTH: Increases greenhouse gases because it causes land to be cleared

FACT: U.S. biodiesel is an **advanced biofuel, reducing lifecycle carbon emissions by up to 86 percent**. New cropland is not needed to make biodiesel because it is **produced from co-products and by-products of crops** already grown for food and other materials. From 2008 to 2016, the U.S. tripled biodiesel use, doubled export of whole soybeans to China, decreased U.S. farmland by 18 million acres, decreased protein prices by \$20-\$40/ton, and soybean oil prices dropped by 40 percent. Surplus stocks of U.S. fats and oils remain sufficient to meet demand with no land impact.

MYTH: Contributes to rising food prices

FACT: Biodiesel actually **benefits the world's protein supply**. Processing biodiesel from soybeans uses only the oil portion of the soybean, leaving all of the protein available to nourish livestock and humans. By creating a new market for soybean oil, we increase the availability of protein-rich meal for human and livestock consumption. The increased meal supply results in a more cost-effective food and feed source.

Biodiesel is the most diverse fuel on the planet, produced from renewable resources such as:

- soybean oil/other plant oils
- fats
- recycled grease
- and soon, algae

MYTH: A first-generation, conventional biofuel

FACT: Biodiesel is one of the only domestically produced **advanced biofuels** commercially available in the U.S. The EPA defines biodiesel as an advanced biofuel in federal statute, based on its greenhouse gas reductions compared to petroleum. It is the best carbon mitigation strategy for diesel engines right now, and for generations to come.

