



# MYTH vs. FACT

Understanding the truth about biodiesel.



## MYTH: Biodiesel voids engine warranties.

**FACT:** Auto engine manufacturers do not warranty any fuel in their vehicles, and biodiesel is no exception or special case. All U.S. diesel vehicle manufacturers support use of B5 biodiesel, while blends up to B20 (20 percent blend of biodiesel with diesel fuel) are approved for use in the vast majority of the diesel vehicles coming off production lines.

## MYTH: Biodiesel increases operational costs.

**FACT:** Biodiesel functions like conventional diesel fuel, requiring no engine modifications. In fact, biodiesel cleans fuel systems and injectors. It also has higher lubricity to help engines last longer. And because it burns cleaner, diesel particulate filters experience less wear and tear.

## MYTH: Using biodiesel doesn't make enough of a difference in air quality.

**FACT:** Biodiesel is a cleaner-burning fuel than petroleum diesel. In higher concentrations, it can significantly reduce air toxins and other harmful emissions. Using biodiesel supports clean air by reducing particulate matter, carbon monoxide, and hydrocarbons, while also helping to improve health by lessening exposure to these air pollutants.

## MYTH: Biodiesel is the same as ethanol.

**FACT:** Biodiesel and ethanol are both biofuels, but they come from different biological materials and have different uses. Biodiesel is made from oils and fats, creating a high BTU content fuel for diesel vehicles. Ethanol is an alcohol-based fuel made from fermentation of corn and cellulosic materials and is designed for use in gasoline engines.

## MYTH: Biodiesel doesn't perform well and causes problems in winter.

**FACT:** Biodiesel has higher cetane than U.S. diesel fuel, which means the fuel ignites faster and causes the engine to run better. B20 provides similar fuel economy, horsepower, torque and haulage rates to diesel fuel. Biodiesel also has superior lubricity and the highest energy content of any alternative fuel (BTUs). And by using cold-weather additives and ensuring storage tanks are free from water like you would with regular diesel fuel, B20 biodiesel blends can be used successfully all year in the coldest U.S. climates.

## MYTH: Biodiesel is made from waste grease.

**FACT:** It's true that biodiesel can be made from recycled cooking oils, as well as soybean oil and animal fats. However, a refining process called transesterification converts these oils and fats into fuel-grade biodiesel that meets industry specifications. If it doesn't meet ASTM D6751 specifications, it's not considered biodiesel. Don't confuse raw fats and oils with high quality biodiesel fuel.



# MYTH vs. FACT

Understanding the truth about biodiesel.



## MYTH: Biodiesel takes more energy to produce than what it returns.

**FACT:** Energy balance is important to consider when producing environmentally sustainable fuels. Biodiesel has the highest energy balance of any fuel. A USDA study determined that biodiesel production returns more than five units of energy for every unit of fossil energy needed to produce it.

## MYTH: Biodiesel 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.

## MYTH: Biodiesel contributes to rising food prices.

**FACT:** Biodiesel actually benefits the world's protein supply. Soybeans are grown for protein. Biodiesel is processed using the oil byproduct 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.

## MYTH: No fuel standard exists for biodiesel.

**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 for blends up to and including B20 (D396)

## MYTH: Biodiesel 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.

## MYTH: Biodiesel is a first-generation, conventional biofuel.

**FACT:** Biodiesel is one of the only advanced biofuels produced and commercially available in the U.S. The EPA defines biodiesel as an advanced biofuel in federal statute, based on its minimum of 50 percent greenhouse gas reductions compared to petroleum. It is the best and most cost effective carbon mitigation strategy for diesel engines right now and for generations to come.