

BIODIESEL BASICS



Soybean Board ✓



WHAT IS BIODIESEL?

Biodiesel is a sustainable, renewable, cleaner-burning diesel replacement that meets ASTM specifications and can be used in existing diesel engines without modification.

This fuel is made from an increasingly diverse mix of resources such as soybean oil, used cooking oil or animal fat.

Biodiesel may be made through a chemical process called transesterification, which separates glycerol from fat or plant oil and replaces it with methanol, or a mechanical process.

Biodiesel is currently produced at two locations in Kentucky. Owensboro Grain uses the chemical process, while Continental Refining Company uses the mechanical process.

WHY WOULD I USE IT?

Biodiesel produces lower greenhouse gas emissions on a lifecycle basis and less pollution than petroleum fuels.

Biodiesel provides a wide range of economic, environmental, and market benefits, which makes it a great choice for farmers, the economy, the country, and the planet.

WHAT BENEFITS FROM BIODIESEL USE?

The Environment

Biodiesel, renewable diesel and sustainable aviation fuel are cleaner than traditional fossil fuels. In ground, air, marine and rail transportation, as well as home heating applications, clean fuels use will exceed 6 billion gallons by 2030. Biodiesel is the first and only fuel commercially available nationwide to meet EPA's definition of an advanced biofuel, meaning it reduces greenhouse gas emissions by at least 50%.

The Population

Health benefits identified include:

- Reduced asthma cases
- Fewer sick days
- Reduced cancer cases
- Over \$7.5 billion in avoided health costs/year.

The Economy

With plants and markets across the country, the U.S. renewable fuels industry supports 75,200 U.S. jobs and pays \$3.6 billion in annual wages. The industry is at the center of more than \$23.2 billion in economic activity each year. Every 100 million gallons of production supports 3,200 jobs and \$1.09 billion in economic opportunity for farm workers, producers and distributors.

WHERE DID BIODIESEL BEGIN?

Farmers originally grew soybeans for soybean meal, which is a high-protein feed ingredient for livestock and poultry. Soybean oil was, for many years, considered a byproduct. Farmer-leaders charged with investing soybean checkoff dollars began focusing their efforts on finding new uses for the oil in the early 1990s, and soon thereafter, soy biodiesel was invented.

Increased demand for soybean oil to make biodiesel also increases the supply of soybean meal that can be used to make animal feed. That increased supply leads to lower feed prices paid by poultry and livestock farmers.

Not only can farmers directly attribute a portion of the value of their crop to the forward-thinking innovation that is soy biodiesel, numerous other uses (and therefore markets) for soybean oil have emerged over the years as a result of wise checkoff investments.

Biodiesel works for the U.S., for soybean farmers, and for the country's rural economies!

WHERE CAN I FIND BIODIESEL?

Biodiesel is most often sold labeled as B20. That means 20 percent biodiesel is blended with 80 percent conventional diesel fuel.

But DID YOU KNOW that, unless otherwise labeled, diesel fuel sold in the United States contains as much as 5 percent biodiesel?

At this blend level, the fuel still meets the ASTM D975 fuel specification and does not require any additional labeling at the pump. Once retailers begin to sell fuel blends containing more than 5 percent biodiesel, labeling is required.



Farmers and other businesses that purchase fuel by the tank-load can request a B20 blend from their fuel retailer.

BIODIESEL IS

Made from soybean oil, which comes from soybeans grown in the U.S. by hardworking farm families.

A drop-in replacement for petroleum diesel that can be used in all engines and equipment up to 20%, many up to 100%.

Renewable, sustainable, non-toxic, biodegradable, and ultra-low sulfur. Better for the environment and the population.

Better for engines due to a higher cetane rating than conventional diesel and improved lubricity. Contains glycerin, which cleans out the fuel system. Meets ASTM standard 6751.



BIODIESEL IS NOT



Ethanol. Ethanol, sometimes referred to as E15, is made from corn and is blended with gasoline, not diesel fuel.

Used fryer oil, or "yellow grease." Biodiesel can be made from recycled cooking oil, but is not biodiesel until it is properly processed.

Renewable Diesel. Produced through hydro-treating, a process similar to traditional refinery operation, Renewable Diesel is also a biofuel that can be made from soy, but the terms are not interchangeable. Renewable Diesel meets ASTM D975 - the same standard as petroleum diesel.

Made from an increasingly diverse mix of recycled resources, biodiesel is a renewable, cleaner-burning diesel replacement that can be used in existing diesel engines without modification.

Using biodiesel has a variety of benefits for everyday drivers and equipment manufacturers.

Because it contains zero aromatics and 11% oxygen, biodiesel burns cleaner, reduces black smoke and reduces toxicity. Biodiesel also has a higher flash point and higher lubricity, making it safer to transport and easier on your engine's daily wear and tear.



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