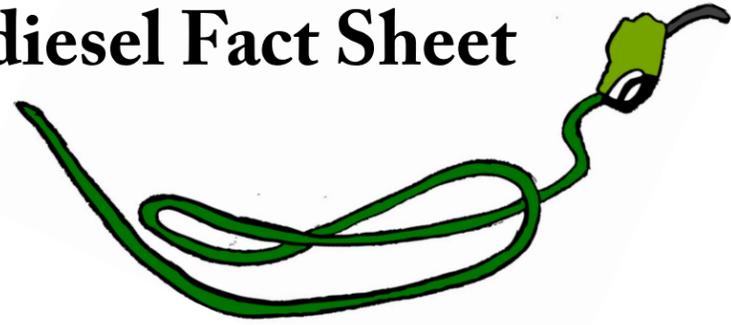


# Biodiesel Fact Sheet



## What is biodiesel?

Biodiesel is a naturally oxygenated fuel produced from organic feed sources such as soybeans, cooking oil, and animal fats. Biodiesel can be used in its pure form (B100) or blended at any ratio with petroleum diesel to achieve cost efficiency and improve cold weather performance. It is commonly used as B20 - a blend of 20% biodiesel and 80% petroleum diesel.

## What types of vehicles can use biodiesel?

Biodiesel can be used in any diesel vehicle without modification. It is used extensively in parts of Europe and is rapidly gaining support in the United States. Applications include buses, delivery trucks, waste disposal and recycling trucks, construction and farm equipment, heavy-duty freight hauling, boats and passenger vehicles. Biodiesel may also be utilized in stationary applications such as diesel generators and boilers.

## How does biodiesel perform?

Biodiesel performs like traditional diesel, though B100 may result in a minimal power loss at the high end and a slight reduction in fuel economy. B20 users generally experience no marked difference in fuel economy from petroleum diesel. ASTM International has reviewed biodiesel performance and issued a final specification (users should be sure that any fuel they purchase meets ASTM D6751). Because biodiesel acts as a lubricant, it reduces wear and tear on the engine, reducing maintenance costs and extending engine life. Biodiesel remains blended with petroleum diesel so it can be easily stored and dispensed in existing facilities. Biodiesel thickens more than diesel fuel in cold weather and special considerations or minor modifications are required for use of B100. Vehicles produced prior to 1993 should have rubber seals in fuel pumps and fuel systems replaced with non-rubber (Viton) seals.

## What are the benefits of using biodiesel?

For every 1 unit of fossil fuel energy that goes into producing biodiesel, 3.2 units of energy are produced, a 1:3.2 energy balance ratio. Biodiesel also results in significantly lower emissions of particulate matter, carbon monoxide, toxic contaminants, sulfur dioxide, hydrocarbons, visible smoke and noxious odors than petroleum diesel. Depending on the feed source, biodiesel can result in a 78% reduction in carbon dioxide emissions over the entire production process.

## Emissions reductions achieved by biodiesel as compared to petroleum diesel

Source: [www.epa.gov/otaq/models/biodsl.htm](http://www.epa.gov/otaq/models/biodsl.htm)

<u>Emission</u>	<u>B100</u>	<u>B20</u>
Carbon Monoxide	47%	12%
Hydrocarbons	67%	20%
Particulates	48%	12%
Sulfates	100%	20%
Nitrogen Oxide	+9%	+2%
Air Toxics	60-90%	20%

Biodiesel is non-toxic and biodegradable and therefore does not pose a threat to water and soil resources if B100 is spilled. Producing biodiesel from restaurant oil or animal processing wastes reduces the amount of materials overcrowding landfills. Additionally, biodiesel is one of the safest fuels to use, handle, and store because it does not produce combustible vapors and has a flash point that is twice that of petroleum diesel. Significant benefits of biodiesel include reducing dependence on foreign oil and providing alternative markets for farmers. Low blends of biodiesel are highly effective at enhancing the lubricity of diesel fuel. The typical blend used for lubricity enhancement is 2% biodiesel mixed with 98% diesel (B2).

## Where can I get biodiesel?

Biodiesel is currently available in NC through a state purchasing contract ([www.doa.state.nc.us/PandC/4051.htm](http://www.doa.state.nc.us/PandC/4051.htm)). This contract makes B20 available to all government purchasers, including public and private schools, municipalities, and state fleets. It is also available to entities that do not purchase from the state contract through several vendors and at several commercial stations throughout the state.

### Retail locations:

America's Fuel (B20)  
801 SW Broad St  
Southern Pines, NC 28677  
910-692-7337

Exxon (B20)  
4401 Roxoboro Rd (at N Duke St)  
Durham, NC 27704  
919-471-6924 (Edward Holmes)

BP #4 (B20)  
531 Roosevelt Blvd (Hwy 74)  
Monroe, NC 28111  
704-289-5438

Cruizer's Biofuels (B20)  
1914 Sedwick Rd (at Hwy 55)  
Durham, NC 27713  
919-806-3458

Fuel Land #2 (4 B20 pumps)  
10222 Johnston Rd.  
Charlotte, NC 28210  
704-543-4600

Gasland USA #3 (B20)  
919 S Lafayette St  
Shelby, NC 28152  
704-480-9733

Gasland USA #7 (B20)  
1801 E Dixon Blvd.  
Shelby, NC 28152  
704-484-9175

Homer's Truck Stop (6 B20 pumps)  
306 Stamey Farm Rd, (I-40, Exit 146)  
Statesville, NC 28677  
704-871-8008

Gas-Up (B20 & B99)  
405 Haywood Rd. (I-240, Exit 2)  
Asheville NC 28806  
828-252-5589

Penn Mart (B20)  
1600 S. Main Street  
Salisbury, NC 28144  
704-636-0592 (Steve Jarrett)

Oakboro Oil Company (B20)  
104 N. Main St,  
Oakboro, NC 28129  
704-485-8018 (David Heath)

New Dixie Mart # 19, (B20)  
I-95 & NC 33 at exit 150  
Roanoke Rapids, NC 27870

I-40 BP (B20)  
1975 Old Mountain Rd  
Statesville, NC 28677  
704-873-5588

Amsterdam Mini Mart, (B10)  
103 NC 46, (NC 46 & 301)  
Garysburg NC 27831  
252-538-0266

A Double A Enterprise, (B10)  
122 Roanoke Ave (NC Hwy 48),  
Roanoke Rapids, NC 27870,  
252-537-0100

Bounds Oil Co. (B10)  
Div of New Dixie Oil, Corp.,  
Seaboard, NC 27876  
252-589-4571

Jackson Mini Mart, (B10)  
308 Jefferson Street (NC Hwy 158),  
Jackson NC 27845  
252-534-0481

New Dixie Mart # 2, (B10)  
11 Hwy 158, (NC 46 & 158)  
Roanoke Rapids, NC 27870  
252-535-2674

New Dixie Mart # 13, (B10)  
142 Julian Allsbrook Hwy,  
Roanoke Rapids, NC 27870  
252-537-1589

### Biodiesel Co-ops (Members Only):

Bull City Biodiesel (B99)  
603 Ellis Rd.  
Durham, NC  
[bullcitybiodiesel.org](http://bullcitybiodiesel.org)

Piedmont Biodiesel (B99)  
Moncure, Pittsboro, Carrboro, Durham, Hillsborough  
[biofuels.coop/tanks.shtml](http://biofuels.coop/tanks.shtml)  
919-321-8260

**Distributors** (complete listings and contact information available at [www.ncsoy.org](http://www.ncsoy.org)):

Berico Fuels Greensboro  
Blue Ridge Biofuels, LLC Asheville  
Bounds Oil Company Seaboard  
Bud's Oil Company Harmony  
Cherry Oil Company Kinston  
Clark Oil Company (off-road) Belhaven  
Cross Road Fuel Service Hertford  
D.M. Price & Sons Seven Springs  
Filter Specialty Autryville  
Grace Fuel Company, Inc Asheville  
Grain Growers Cooperative Wilson  
Griffin Industries, Inc. Cold Springs, KY  
Hill Oil Company Lexington, Midway  
Lowry Oil Elizabeth City  
Micro Oil (off-road) Micro  
Monroe Oil Company Monroe  
Monson Oil Cary  
New Dixie Oil Roanoke Rapids, Littleton  
Oakboro Oil Company Oakboro  
Parker Gas Co., Inc Newton Grove  
Piedmont Biofuels Pittsboro  
Pit & Pump #4 Winterville  
Potter Oil & Tire Co., Inc. Aurora  
Rex Oil Company Thomasville  
Sampson-Bladen Oil Company Clinton  
Teal Oil Company, Inc. Raeford  
Thomas Petroleum Co., Inc. Shelby  
United Energy Aiken, SC  
Wilson Petroleum Company Wilson  
World Energy Chelsea, MA

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**Resources:**

National Biodiesel Board ([www.biodiesel.org](http://www.biodiesel.org))  
Triangle Clean Cities Coalition ([www.triangletcleancities.org](http://www.triangletcleancities.org))  
Centralina Clean Fuels Coalition ([www.4cleanfuels.com](http://www.4cleanfuels.com))  
Land-of-Sky Clean Vehicle Coalition ([www.landofsky.org/planning/p\\_cvc\\_home.html](http://www.landofsky.org/planning/p_cvc_home.html))  
NC Solar Center ([www.ncsc.ncsu.edu](http://www.ncsc.ncsu.edu))

