

[Metro.net](#) (web)

Resources

► [Safety](#)

► [Pressroom](#) (web)

► [CEO Hotline](#)

► [Metro Projects](#)

► [Facts at a Glance](#)
(web)

► [Archives](#)

► [Events Calendar](#)

► [Research Center/
Library](#)

► [Metro Cafe](#) (pdf)

► [Metro Classifieds](#)

► [Retirement
Round-up](#)

Metro Info

► [Strategic Plan](#) (pdf)

► [Org Chart](#) (pdf)

► [Policies](#)

► [Training](#)

► [Help Desk](#)

► [Intranet Policy](#)

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This turbo diesel engine fills up on vegetable oil and the determination of Metro's Arthur Brown, a scheduling system analyst who converted his 1983 Mercedes to run on alternative fuel.



Want Fries With That? Arthur Brown's Mercedes Fills Up at KFC

By SHANTAY IOSIA

(Sept. 22, 2004) If you think your car has you chained to the fuel pumps, think again. Just ask Metro's Arthur Brown, who fills up his 1983 Mercedes at the back entrance to KFC, for free.

Brown, a scheduling systems analyst, purchased the car about three months ago hoping to beat rising gasoline prices by converting its fuel system.

His turbo diesel engine now runs on waste vegetable oil (WVO), which he collects monthly from a local Kentucky Fried Chicken store. KFC filters the WVO first, then he filters it again to remove any remaining particles, and it's ready to burn.

Brown had no ecological intentions when he began the project. His incentive was to save money and rekindle an abandoned hobby.

'Simple technology'

"Once cars got to be sophisticated with all the computers and different things, I quit working on them," Brown says. "This is going back to the simple technology which I can handle."

PHOTOS: SHANTAY IOSIA

After extensive research, Brown found that older model cars proved to be the most reliable and the diesel Mercedes was the best option for the fueling experiment because of its durability.



Brown installed a second fuel tank in his trunk to store the vegetable oil. Hoses connect it to the engine.

It's not unusual for a diesel engine to reach half a million miles, but although they are more fuel-efficient than gasoline engines, most Americans find them bulky and noisy.

With the Internet as his guide, Brown downloaded directions and installed a second fuel tank in his trunk to store the vegetable oil. The 12-gallon tank sits where his spare tire once did with hoses connecting it to the engine.

When Brown turns the key, ignition starts with the diesel fuel. The engine's hot coolant heats the vegetable oil to about 170 degrees Fahrenheit. This liquefies the gelled substance to a viscosity, or thickness, that is friendly to the engine.

Lights identify the fuel

After the vegetable oil is heated, a switch shifts the fuel source allowing the car to run on WVO. Colored lights on the dashboard identify the type of fuel the car is using.

The engine is switched back to diesel before the vehicle is shut off to prevent clogged injectors and filters. Brown says the converted fuel system cost less than \$500.

"I get the same mileage as the diesel fuel," says Brown, who commutes almost 70 miles from Moreno Valley. "It even sounds a little better. It doesn't have the diesel high-clicking sound."

Although vegetable oil is said to be friendlier to the environment than petroleum, the EPA has not yet recognized it as an energy source. Furthermore, there are no substantial studies to show what the emission contains and its long-term effects.

For now, Brown is confident that the fuel is harmless to his engine and to the environment. "It almost smells like French fries," he says.