

SUSAN CHAITYN LEBOVITS

Recycle, reuse, and ready to roll

Brothers convert
2 vehicles to run
on vegetable oil

Their vehicles may smell a little funny, but David and Richard Posluszny are getting the last laugh by paying 28 cents a gallon to run them on vegetable oil.

The brothers, both majoring in building materials and wood technology at the University of Massachusetts at Amherst, drive home to Northborough once a month to fill up on used frying oil from local restaurants.

David, 22, was inspired to convert his diesel-powered 1983 Mercedes 240D to run on the oil after seeing a poster in his college dorm in 2002.

But first he had to serve a year's tour in Iraq with the Army National Guard. He brought along a number of how-to books so he'd be ready to overhaul his car when he returned.

And that's just what he did. He invested \$1,200 in parts and spent four hours a day under the hood for two weeks installing them. Then his car was ready to roll — on peanut, soy, and canola oils.

Richard, 20, followed suit, converting his 1989 Ford truck.

David says the fuel's distinctive odor is not apparent while he's driving, but "if I'm running the car and step out, I feel like I'm in a McDonald's parking lot."

While the actual fill-up takes under 10 minutes, the process of picking up the vegetable cooking oil and getting it into their homemade filtration system is a three-hour ordeal.

They arrive at the restaurants with a trailer carrying a 275-gallon plastic tank, and siphon the used oil from steel drums they provided to the restaurants. Then they haul it to their family's home and pour it into the processing plant that Dave set up in the garage.

Three insulated 55-gallon galvanized containers, neatly arranged in the left bay of the garage, hold the oil while it is heated to an average temperature of 90 degrees, keeping it in a liquid state that allows water and food particles to settle to the bottom while the oil rises to the top. After a year of using the system, there is just an inch of accumulated waste at the bottom of the barrels.

"They use a kilowatt meter to monitor how much juice their electric heater uses to warm the oil. The cost is \$34.56 a year in electricity," David said, or about 3 cents a gallon; filters are their biggest expense, adding 25 cents per gallon of fuel produced by their little processing plant.

With the raw material given away by the restaurants, the total cost is 28 cents per gallon. David said his car averages 23 miles per gallon on the oil and diesel mix.

Both of their cars have two fuel tanks: one for the treated vegetable oil, and one for regular diesel. Since the cooking oil must be in a liquid state, which is especially tricky in cold weather, they run the vehicles on diesel for a few minutes until the engine has reached 170 to 210 degrees, usually within a few miles. Then with the



Richard (left) and David Posluszny of Northborough have each converted vehicles to run on vegetable oil.

flip of a switch, the vehicle is burning vegetable oil. They switch back to diesel for the last mile so the fuel lines will be clear of vegetable oil when the engine is turned off.

The brothers have become oil connoisseurs of sorts.

"Nonhydrogenated oil is easier to work with," said David. They prefer 100 percent vegetable oil — soybean, peanut, or canola — and say they have found top-of-the-line waste oil at A. J.

Tomaiolo's restaurant and Capt'n Jud's Northboro Fish Market.

Last spring, David was confident enough to drive across the country, with stops at the Grand Canyon in Arizona, Zion National Park in Utah, and Las Vegas — all for \$60 in diesel fuel. He researched fill-up points and brought along a portable filter to process restaurant oil along the way. The trip

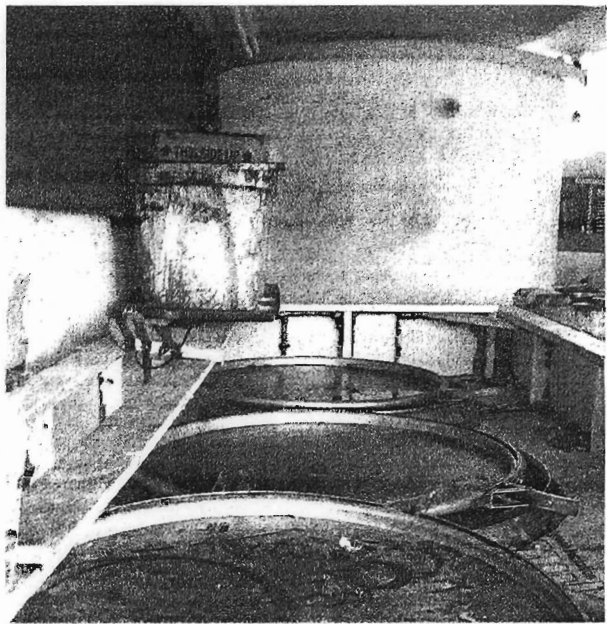
west was a snap. Heading home was a different story.

"On the way back I ran out of vegetable oil," said David. "Either the oil was hydrogenated or the dumpsters were empty." He found himself in Iowa with no oil and just \$100 left.

He had budgeted for every day of the trip and was determined not to have his parents bail him out, so he started looking for ways to raise enough cash to pay for diesel. He attempted to pawn his camping equipment, stopped by farms to ask for day work, and inquired in local restaurants for a job.

His attempts at finding work failed, but in Oklahoma he stumbled upon a casino on a Native American reservation. He bought \$60 in chips, sat down at a hold 'em poker table, and 45 minutes later left with \$180, enough to get him home. "As soon as I hit the number I needed, I left," said Dave.

Parents John and Nancy were horrified at the tale. Brother Richard



A filtration system takes up one bay in the Posluszny family's garage, with three 55-gallon containers holding the recycled cooking oil.

thought it was amazing.

John Posluszny is a project engineer for Aspen Aerogels, maker of high-efficiency insulation. He said David has a long history of not just dreaming up innovative ideas, but making them work.

"In March of 2006 he built a hot-water solar panel system in the backyard," said John. Seven years earlier, he said, David had the entire family "make snowshoes out of PVC piping, and when he was 14 he decided to take us all on an adventure to the White Mountains in the middle of February, where it gets so cold you can hear the sap popping inside the trees." David had researched how to build snow shelters that would shelter them in the

minus-30-degree temperatures.

"He's intense 24/7," said Richard. "One day at dinner we prepped one of our friends to ask him about insulation. It wound up being a two-hour conversation."

David said he has no grand plans to convert the world to run on veggie oil.

"I'm not interested in politics or government, making policies, or forcing anything on anybody," he said. But for those who want to save the Earth and a few bucks, he's happy to help.

To learn more about Richard and David or to donate used fryer oil, visit theygreasybrothers.com. To suggest a People item, e-mail Lebovits@globe.com