

Wisdom on Wheels

Our guide to navigating LA's budding biofuel community, from the pros and cons of biodiesel vs. SVO to the cheapest gallon of guilt-free gas this side of brewing your own

If you've been toying with the idea of crossing to the sustainable side of the freeway on veggie power, it's about time. Increased demand for war-free, environmentally-friendly domestic fuel sources—and the resulting improved commercial availability of vegetable oil fuel products and services—means more Angelinos are gassing up green.

"It's the vision of the positive impact we would have in the world if we grew all of our own fuel," said Matt Henigan, an account executive for Santa Monica-based Sustainable Works and the proud owner of a 1995 biodiesel-powered Mercedes Benz E300. "The carbon I'm releasing into the air equals the carbon absorbed by the plants grown to make the biodiesel. I'm reducing dependence on Middle Eastern oil, plus lessening my environmental impact."

For those who wish to drive unfettered by fossil fuel guilt, there are currently two bio-fuel options in LA: biodiesel, a mixture of vegetable oil, lye and methanol or ethanol; and straight vegetable oil (SVO).

Turning Dirt into Diesel

Hugely popular in Europe, biodiesel is more common than SVO among local green transportation connoisseurs because of its ease of use and controlled, ultra-low emissions. Currently only two gas stations in LA sell biodiesel at the pump (see sidebar), which can be inconvenient, but more are expected soon. Any diesel engine car can run on biodiesel, without conversion, but regular diesel fuel can still be used in a pinch (a bonus on long road trips).

Homebrewing biodiesel is also an option. The Dervaes, a Pasadena-based urban homesteading family, craft their own biodiesel for under a dollar a gallon. "My [adult] son Justin brews 30 to 40 gallons at a time in an old waterheater in the garage," patriarch Jules Dervaes said. "It's the American thing to do, to have a gas station in your garage."

The process starts with straight vegetable oil, to which lye and racing methanol are added to create a less viscous oil, biodiesel, and the byproduct glycerin. (WLT ran a brew your own biodiesel breakdown last February, archived on our website wholelifetimes.com). Readymade homebrewing systems are also available for those who don't want to build one from scratch.

The Dervaes deliver their organic heirloom tomatoes and salad greens to upscale area restaurants in a sleek, homebrew-powered Chevy Suburban. One of their customers supplies the vegetable oil needed for homebrewing, completing the carbon-neutral cycle.

From the Frying Pan to the Fuel Tank

SVO is gaining ground in LA as more people discover the delights of paying just once to convert their diesel engines to accommodate free, used restaurant cooking oil. No more gas stations; instead, it's a scramble to stake out the finest local sushi and tempura restaurant (Japanese chefs replace cooking oil more often, resulting in a higher-grade fuel).

Restaurant owners are usually thrilled to bypass paying for oil disposal and will leave five-gallon jugs of used oil out back for their SVO partners. Oil must be filtered and batch-tested for high acidity before use.

Where biodiesel reduces the viscosity of vegetable oil through a chemical process, SVO reduces viscosity by preheating the oil in the engine. At Silver Lake-based Lovecraft Bio-fuels, owner Brian Freedman converts four or five diesel cars to SVO each day. He sells pre-filtered oil to those who don't want to collect and prepare their own (\$1.40/gallon for recycled oil, and between \$2.40 and \$2.60/gallon for new).

continued on page 24



continued from page 22

The choice between biodiesel and SVO garners strong opinions; sustainable fuel advocates usually stand for one or the other. The biodiesel camp points out that uncontrolled levels of oil quality, filtration and system maintenance mean that some SVO cars run clean, others dirty. Plus the heavier viscosity of SVO can age injectors and other engine parts faster. SVO advocates retort that biodiesel allows corporate America to maintain its grip on fuel profits through commercial refineries and biodiesel-petroleum diesel mixtures.

But one point is certain: in a petroleum-dominated world, fractious attitudes among all fuel advocates are only going to throw a kink in the works. That's why Russell Sydney, organizer of LA's 400-member Sustainable Transport Club, chooses instead to network, share information on all types of transport and build community. Although he prefers biodiesel, he appreciates the potential of SVO. "SVO users have done a great job of identifying and using a wasted fuel source," he said. "A community-based collection system would allow SVO to be treated properly. Creating quality fuel is key. But the first step is to stop being as wasteful as we are with the resources we've been blessed with."

—KATIE WINCHELL

	BIODIESEL	SVO
Pros	Ease of use, controlled low emissions.	Free fuel.
Cons	Biodiesel stations are few and far between. Making your own is technical and time-consuming.	Collecting and filtering the oil on your own is time-consuming.
Cars	Any diesel; Volkswagens and "Reagan years" Mercedes-Benzes popular.	Any diesel; Volkswagens and "Reagan years" Mercedes-Benzes popular (all cars require full conversion).
Conversions/Equipment Resources and Costs	<p>Little or no modifications necessary. But for the DIY folks:</p> <ul style="list-style-type: none"> • Find info on homebrewing fuel at biodieselcommunity.org • Purchase your own homebrewing system (about \$3,000) from makebiodiesel.com • Biodiesel used car sales from \$1,800: biobling.com, based in LA 	<p>Add tank, fuel lines, filtration, toggle switch.</p> <p>Conversion services (from \$700) and converted used cars from (\$2,500): Lovecraft Biofuels 4000 Sunset Blvd., LA lovecraftbiofuels.com</p> <p>DIY Conversion kits (from \$500) and kit installation (from \$600) available on greasecar.com, goldenfuelsystems.com</p>
Where to find	<p>99.9% Biodiesel (B99.9) at the pump:</p> <p>Palisades Gas & Wash, 890 Alma Real Road, Pacific Palisades</p> <p>USA Gasoline, 4395 Glencoe Avenue (@ Mindanao), Marina Del Rey</p> <p>Cudahy FuelStop, IFL Corporation, 8330 Atlantic Ave., Cudahy (5 gallon buckets of B-99 also available for take-home)</p> <p>B99 or B100:</p> <p>LA Biodiesel Coop, West LA/Santa Monica, biodiesel-coop.org, Min. \$250 membership</p> <p>LA Biofuels delivers 55-gallon drums of B99 to your door. 310.396.5310</p>	<ul style="list-style-type: none"> • Source your own free five-gallon jugs of used cooking oil from restaurants. • Buy pre-filtered oil from LoveCraft Biofuels for \$1.40/gallon recycled, \$2.40-\$2.60/gallon new.
Resources	<p>LABiofuel.com</p> <p>SustainableOptions.com</p> <p>PathToFreedom.com</p>	<p>JourneyToForever.org</p> <p>SustainableTransportClub.com</p>

