

MotorWeek Transcripts

FYI 'Brew-It-Yourself Fuel'

JOHN DAVIS: When it comes to alternative fuels, biodiesel is getting a lot of attention. No wonder, mixtures of diesel fuel and refined vegetable oil have the potential of powering everything from tractors to airplanes to home heating systems. And thanks to American ingenuity not all biodiesel to come from commercial refineries. So we sent our FYI reporter Yolanda Vazquez on a grassroots mission to find out if biodiesel is really the people's fuel of the future.

YOLANDA VAZQUEZ: There's enough waste vegetable oil stored outside Matt McShane's barn that you'd think he had a restaurant inside.

Pry back the doors and you'll see how this leftover cooking grease is being used to make biodiesel.

MATT McSHANE, BREWS BIODIESEL: What we have here is a modified apple seed processor that can do about 40 gallons per batch of biodiesel.

VAZQUEZ: McShane's interest in green fuels is more than just a quaint hobby. He's brewing biodiesel to run his farm equipment and teach these college students a lesson or two in brew-it-yourself fuel.

MIKE GERMAN, PRESIDENT, UMBC BIODIESEL PROJECT: We've been running batches about once or twice a week, 40 gallons per batch, throughout semester – depending on oil supply and homework situations.

VAZQUEZ: The idea of refining your own biodiesel is popular not only amongst backyard brewers, but also community-minded advocates like Adam Schwartz, who's spent the last year setting up the green guild biodiesel co-op.

ADAM SCHWARTZ, FOUNDER, GREEN GUILD BIODIESEL CO-OP: I saw the potential of what a co-op could do and how it could really be used to promote biodiesel on a bigger scale than just personal use.

VAZQUEZ: For less than \$4 a gallon – and on certain days of the week – members can pull up to this makeshift fueling station to get their B80 blend. It can then be mixed with regular diesel to make B20 which is safe to use in most diesel engines.

KIKI JENKINS, BIODIESEL CO-OP MEMBER: So I probably come maybe once a month get anywhere from 10-15 gallons.

VAZQUEZ: Kiki Jenkins prefers to use biodiesel in her 25-year old Peugeot. She says the renewable fuel is more eco-friendly and merely serves as a stop-gap measure.

JENKINS: It takes us from where we are now with fossil fuels for where we want to be – something that has no emission or very limited emissions.

VAZQUEZ: Until they can build their own processing space, Schwartz's Co-op purchases biodiesel from a local distributor.

SCHWARTZ: But our eventual goal is really to be producing it on our own and really demonstrate sustainability in that way.

VAZQUEZ: He also hopes to turn this bright green container box . . .

SCHWARTZ: On this side of the wall will be the pump and hoses and all that.

VAZQUEZ: . . . into a 24-hour fueling station. Each one of these storage tanks can hold up to 300 gallons of biodiesel.

SCHWARTZ: Right now there's no station in the area that's regularly selling biodiesel and so we'll be able to make it regularly available in this state.

VAZQUEZ: Co-ops are sometimes seen as a way to support the democratization of fuel production.

DAN GOODMAN, EXECUTIVE DIRECTOR, BIODIESEL UNIVERSITY: It allows local areas to create a market for biodiesel and local consumers to acquire it even when gas stations don't carry it in their area.

VAZQUEZ: Dan Goodman is the executive director of Biodiesel University – a name that often causes confusion.

GOODMAN: Although it sounds like a degree granting institution that will teach you how to make biodiesel – that's not what we're about.

VAZQUEZ: Instead his goal is to get students interested in renewable energy. He does it by using these recycled urban transit buses as mobile education labs.

GOODMAN: Research has shown that people are more inspired and learn better by doing things, touching things, using all their senses. So we feel that's the appropriate way to deliver this type of knowledge.

VAZQUEZ: Public education is a core value of the national biodiesel board. Their website lists important fuel facts and commonly asked questions.

JENNA HIGGINS-ROSE, DIRECTOR OF COMMUNICATIONS, NATIONAL BIODIESEL BOARD: One of the greatest things about biodiesel is that appeals to just about everyone...people like it for different reasons.

VAZQUEZ: Director of communications Jenna Higgins-Rose says homebrewed biodiesel represents less than 1 percent of product in the marketplace.

HIGGINS-ROSE: And while the intentions behind homemade biodiesel are certainly honorable – there are a couple of issues people need to consider.

VAZQUEZ: Issue number one is fuel quality. Any biodiesel sold must meet the industry's ASTM standard. Otherwise, it can damage your engine. Number two involves the handling of hazardous chemicals. The department of energy warns the process is not for amateurs.

HIGGINS-ROSE: And the International Association of Fire Chiefs has a lot of concerns about people tinkering around with methanol in the garage – it's not something that the average person should be doing because it just isn't safe.

VAZQUEZ: McShane and his students wear goggles, respirators and gloves when working. They know producing biodiesel can be dangerous. But, when done safely, it's an effort worth exploring as this cleaner-burning fuel becomes a part of our nation's long-term energy strategy.

HIGGINS-ROSE: Biodiesel has so much to contribute and it's really a win-win for our country to invest in that.