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Couple helps bacon fat fuel diesel engines

Turning algae into fuel may be future energy project helping the environment

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MANITOWOC — Randy Kirt may have had quite an appetite by the time he drove 80 miles to Clintonville on Monday morning.

"There's no soot, no smoke, it gives you better efficiency and it smells like bacon," Bio-Blend Fuels co-owner Dan Kaderabek told one of his first filling station customers.

He and his wife, Tracy Kaderabek, formed Bio-Blend fuels in 2005 and last June moved to their current 3-acre production facility, 2815 Basswood Lane.

In essence, pig fat equals the biodiesel fuel that Kirt, owner of Modern Tool & Machine in the same north side industrial park as Bio-Blend Fuels, put into his Chevy pickup truck.

"The pork gets run through microwaves to make precooked bacon, the grease falls off and that's what we use," Dan said. "Americans' bad eating habits ensure our supply."

On their Web site, www.bioblendfuels.com, the Kaderabeks state a primary benefit of biodiesel — which also can be made from soy or canola oil, including recycled fryer oil — is that since it is made domestically, it reduces U.S. dependence on foreign oil.

Using biodiesel keeps fuel-buying dollars at home instead of sending it to foreign countries, the Kaderabeks contend, and reduces the nation's trade deficit and creates jobs.

Kirt agrees.

"I'd like to keep the money local," said Kirt, as he swiped his credit card at the filling station that opened last week.

The Kaderabeks use a "transesterification" process to create the biodiesel they said is a safer, cleaner alternative to petroleum diesel.

Other benefits, the Kaderabeks state, include the burning of biodiesel in auto, truck and marine engines is nearly "carbon-neutral," contributing nearly zero emissions to global warming and that engine life is extended as biodiesel has excellent "lubricity."

Not relying on government

While the Kaderabeks view producing biodiesel as an environmentally friendly "green" industry, their business model for success doesn't depend on what direction political winds are blowing.

"We're not relying on government handouts or rebates or tax credits," said Tracy. "Those would be a bonus, but you can't rely on those in running your business."

Success will be based, they said, on having low overhead and selling the biodiesel cheaper than regular petroleum diesel.

On Monday, Kirt filled his tank with a 50-50 blend of biodiesel and regular diesel for \$2.09 a gallon, compared to about \$2.20 for 100 percent fossil fuel, "dino diesel."

The Kaderabeks' blend of 20 percent biodiesel-80 percent regular diesel sold for \$2.17 Monday while "B99" (almost all fuel from the pig fat) was \$1.99.

Dan has a patent pending on the automated dispensing system giving purchasers the biodiesel blend they prefer.

Tracy said biodiesel will clean fuel lines. For customers with an old diesel vehicle, the first tank or two of biodiesel could free up the accumulated crud and clog the fuel filter, requiring it to be changed.

She's working on a brochure explaining what biodiesel purchasers can expect, for example, B100 (100 percent biodiesel) can get slushy when the temperature is less than 32 degrees.

Tracy said Monday with cool spring weather she's putting B50 in her own pickup.

The Kaderabeks also use their biodiesel in their 59-foot powerboat. They've closed down Boatworx, their boat storage business they had when in the City Centre, on the Manitowoc River peninsula.

Tracy said they've been fortunate to retain the same three employees they had when their business was at City Centre.

Pig fat now, algae in the future

The Kaderabeks live in Cleveland with their 10-year-old daughter, Elle. When they see algae off the Lake Michigan shoreline at Hika Bay, the Kaderabeks eye a potential moneymaking, environment-saving opportunity.

"In five years, I think there will be the technology and effort made to make biofuel out of algae," Dan said of the organisms.

"When you squeeze the algae you get a pulp rich in sugars and starches that can be made into ethanol," Dan said. "The algae cleans the water ... we'll take the algae and make fuel, it'll burn with no emissions, the earth survives and everybody's happy."

For now, they'll concentrate on the biodiesel from pig fat and, sometimes, from beef tallow depending on which is most cost-effective commodity for producing blends at their filling station.

Tracy talks of a day when they might expand to a point where the Kaderabeks have biodiesel fueling stations at franchises in Wisconsin or the Midwest.

"We were good at the boat thing ... and are fortunate enough, as a married couple, to find another industry where we can be successful and make money," Tracy said.

She said she has spent the past year making sure that all aspects of their biodiesel business will be run properly, complying with various regulations and passing inspections from different agencies, including weights and measures.

"This industry is a challenge with things changing so often," Tracy said. "It is exciting to be part of it."
