

Fast food sludge can make motors run

BY SYLVANNA VANDERPARK

TORONTO (CUP) — The smelliest food grease can now be transformed into greenhouse friendly motor fuel.

It took University of Toronto Chemistry Professor David Boocock eight years to come up with the environmentally friendly technology.

"Biodiesel" transforms recycled cooking oils, tallows and low-grade vegetable oils into diesel. It is the first of its kind in the world.

George Adams, president of the U of T Innovations Foundation, is pleased with the discovery.

"The advantage of our biodiesel is that you can take the worst stuff you can imagine and turn it into fuel," he said. He says a similar innovation was made in Europe but with high quality vegetable oil.

"The end product we get from sewage is of the same quality that the Europeans get from vegetable oil," explained Adams.

Combined with petroleum diesel at a 20 percent blend, the formula has been approved by the U.S. Department of Energy and Environmental Protection Agency as an alternative fuel.

The formula has been recently licensed to the California-based Biodiesel Development Corporation (BDC).

By using cheap feedstock, it is estimated this method will cut fuel costs by as much as 50 percent, making it competitive with regular petrodiesel fuel.

And it provides a twofold environmental advantage by being a recycled product and a clean burning fluid.

It takes bad oil and extracts "lipids in sewage sludge that give good oil, like cholesterol, fats, greases and vegetable oil," said Boocock.

The sewage sludge will be collected from restaurants and food processing companies — anywhere where there's food being fried — including fast food restaurants like McDonald's where an average four to five buckets (80-100 litres) of grease sewage is disposed of each week.

Biodiesel is aesthetically attractive too.

"[It's] pale yellow in color and has an aroma equivalent to that of vegetable oil," Boocock said. "It reduces emissions, and the nicest thing about it is that it's biodegradable."

Boocock points out there are certain socio-political implications to this diesel.

"In tropical countries the technology can be used to convert the Methyl Ester from palm oil into biodiesel," he said. He claims the innovation could lessen foreign dependency for oil.

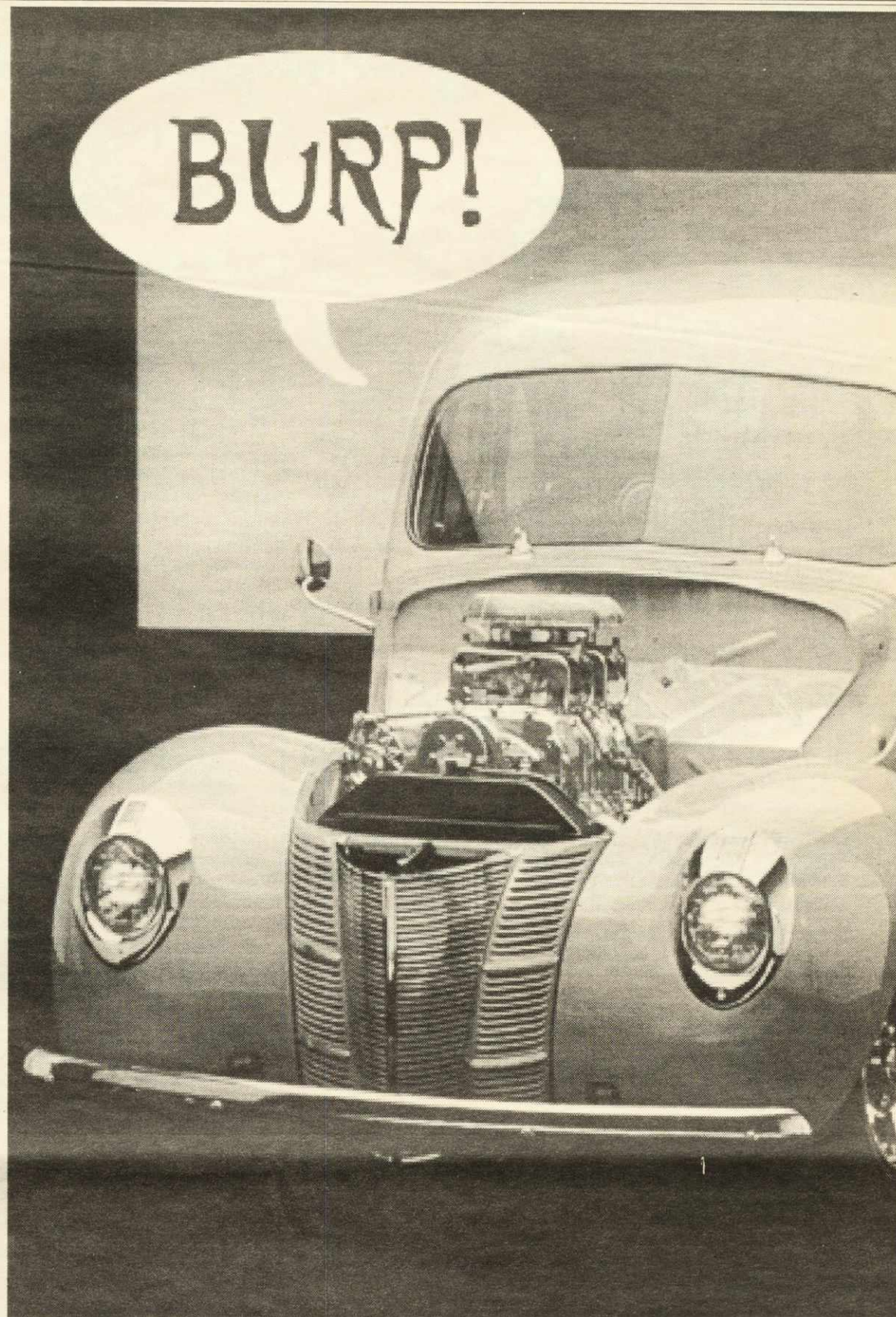
The researchers hope that U of T and Biodiesel will enjoy global success as more companies and countries pick up the licenses to use the formula.

"I think biodiesel will do well," said Adams. "What we need are some

Canadian entrepreneurs to take it on and globalize it. BDC will demonstrate that it works to scale, and then the hope is to scale it down to fit into communities."

Adams wants to see the new fuel put to good use.

"The least we can do with it is put it to use on school buses to prevent children from inhaling toxic fumes," said Adams.



DID YOU KNOW?

- Women in North America use about seven billion tampons each year.
- Tampons and pads are usually bleached white — though one wonders why.
- The by-products of chlorine bleaching are organochlorines such as dioxin, a known human carcinogen and toxic substance.
- In Halifax, our sewage is flushed directly into the ocean, tampon applicators and all, causing mortality of oceanic creatures.

And of course they look great lapping against our shorelines. So what are the alternatives? Luckily there is no lack of ingenious environmentally friendly inventions which are also good for your body. Unbleached pads and applicator-free tampons are available even in typical drug stores. Health stores carry reusable pads, much in the same style as reusable diapers — with a washable outer layer with Velcro wings, and a folded washable cloth inside. As mentioned in the 'Pulling the plug' article, another popular alternative is the cup or 'the Keeper', which lasts many years, is non-toxic to the body, and also promotes a greater, more positive connection with what was once a sacred cycle of women's lives.

Oh — and I couldn't resist adding this little (completely irrelevant) fact to the bunch:

- In 1994, Russian lumberjacks were paid with tampons when their employer ran out of the more conventional means of payment: cash.

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