

# TRANSFAT TRANSPORTATION

A famous Hollywood actor has a novel way of making her environmental statement. Once a week or so, Daryl Hannah has a barrel of used french fry oil from Los Angeles restaurants delivered to her home. She uses the oil to power her “bio-diesel veggie cars.”

The idea of french fry power may not be an obscure pursuit of Hollywood actors if researchers at the University of British Columbia have their way. A few years back when they were science students at the university, Peter Doig and Geoff Hill toyed with the idea of developing bio-diesel fuels. With the support of their professor, they focused on the idea of using waste cooking oil. The idea was not so farfetched when it is considered that in the 1890s, when the diesel engine was developed, its inventor intended that it run on vegetable oil.

A ready supply of the raw material was to be found in the university cafeterias. At a pilot lab on campus, it goes through a process that eliminates the fatty acids and is then mixed with methanol, purified and evaporated through a still. Currently, two students who belong to *what energy crisis?* the Environmental Youth Alliance on the university campus spend eight hours a

week collecting waste cooking oil from the university cafeterias, enough to supply the small laboratory with enough product to produce 100 litres of fuel per week.

This is more than a youth science fair idea. The university has agreed to operate all of its campus

lawn equipment with a 20 per cent bio-diesel fuel blend for the next few months as a pilot program to determine whether there are long-term options for a fuel switchover. With enough waste cooking oil at UBC to produce 1,000 litres of fuel per week, the bio-diesel fuel could operate 15 one-ton trucks to run 250 kilometers each, or it could fuel 60 cars with diesel engines permitting them to get 1,000 km per tank. The dividends of even a 20 per cent blend of bio-diesel fuels are significant in environmental terms. The main components of smog, which are particulate matter and ground level ozone would be reduced by half and carbon dioxide emissions reduced by 20 per cent.

It's reported in the UBC Alumni Magazine that Harvard University has recently switched to running all of its diesel vehicles on bio-diesel.

It may turn out to be one of the great ironies of the age that just as people are being persuaded to cut down on their french fries we may be eliminating a source of low-pollution energy.



*Daryl Hannah*

## BEST BEFORE 300 AD

Scientists have recovered a small container of cosmetics dating back to the middle of the second century

