

# Vegetables offer oil alternative

By Will Ennett for CNN

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**LONDON, England (CNN) -- As crude oil prices rise, the cost of driving a vehicle becomes an obvious worry and the search for alternative fuels becomes a more pressing matter.**

While the wait for hydrogen cells to develop and other technology to flourish continues, the humble vegetable is being used throughout the world as an environmentally friendly way to run cars.

Brazil has experimented with vegetable-based fuels for cars since the previous oil-price peak in the 1970s, when the country switched its fuel supply to a cheaper homegrown product: Sugar cane ethanol.

The renewable fuel boom lasted well into the 1980s -- at one point it accounted for 91 percent of cars produced in Brazil.

Vegetable oil may not have cutting-edge savvy and technological glitz, but Nasamax, a top-level English racing team, says it is determined to show what high-performance credentials vegetable oil has.

The Kent-based team's "green" car was the first to operate on renewable fuels when it completed the classic Le Mans 24-hour challenge in July.

Team spokesperson Janice Minton says the use of alternative fuels at endurance racing level proves their worth.

Welsh environmental campaigner Daniel Blackburn drove the length of Great Britain -- from John O'Groats to Land's End -- in a vegetable oil-fueled car last year.

He says that vegetable-fueled vehicles are much better for the environment than petrol and diesel and he cannot see any negative effects in using the alternative.

"There's enhanced performance from vegetable oil and better acceleration," he says.

During his journey, Blackburn also recycled cooking oil waste from local restaurants to help fuel his car, and says the smell was much more pleasant than petrol and diesel.

Other examples abound of companies using waste from cooking oil to fuel cars.

In Hong Kong, plans are afoot to convert diesel cars -- which are the most straightforward to change, to vegetable-based fuels, using leftover cooking oil from the city's many restaurants.

Most governments, however, have been slow to embrace potential solutions to carbon emissions, and are instead focusing attention on higher-tech options, including hydrogen cell research, which is still in its very early stages.

American president George W. Bush has committed \$1.2 billion for hydrogen cell research but mainstream use remains several years away.

Colin Matthews, head of Transport Energy Programs for London's Energy Saving Trust, says there are a variety of different sources of transportation fuel for the future.

LPG, or Liquefied Petroleum Gas, which is a product of natural gas fields, holds some advantages over diesel, he says.

It produces 12 percent fewer emissions than petrol and can be used in petrol cars, after a simple conversion.

Matthews says that further down the track, cells will provide an answer to transportation energy.

He believes such cars will be commercially available by 2010. However, he says it may be five years beyond that before they become commonplace.

"There is a difference between being commercially available and commercially viable," he says.

London is one of 10 European cities currently trialing environmentally friendly hydrogen-fueled buses, but the project has already highlighted some of the commercial obstacles to the rapidly developing technology.

Although funding is subsidized by the Energy Trust, a single bus costs \$1.2 million, whereas a normal bus is about \$150,000.

With so many alternative fuels available, the viability of biofuels has been questioned.

Matthews believes that instead of having one or two dominant types of fuels, there will be in future a "portfolio of different fuels and different technologies."



**Vegetable oil-based fuel could become a replacement for crude oil in future.**

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