

Can Turkey Guts Turn Into Fuel?

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Researchers are developing a new technology that could turn your holiday turkey into fuel. This past Thanksgiving, Americans gobbled down about 45 million turkeys. Researchers are working to develop a new technology that could turn the leftovers into fuel.

Changing World Technologies (CWT), a New York State environmental company, believes that it can change turkey guts into oil. The oil could be used to fuel cars, they say.

How can turkey fuel a car?

The company uses a process called thermo-depolymerization (TDP). TDP means that waste—like turkey guts—is ground up and mixed with water. The mixture is then heated to 500 degrees Fahrenheit (260 degrees Celsius)—more than twice as hot as boiling water!

The heated mixture is then compressed and cooked again. Eventually, this process turns the turkey guts into oil and other substances.

CWT built a factory in Missouri, where it hopes to turn 200 tons of turkey guts into 500 barrels of oil a day. The technology may help to recycle garbage, reduce U.S. dependence on foreign oil, and create clean-burning oil, CWT says.

But a number of people are not convinced that the process will work, including the New York Public Interest Research Group (NYPIRG), a group that works to protect the environment and reform the U.S. government. The group criticized CWT's leader, Brian Appel, saying, "This guy isn't for real!" Not believing the TDP process works, NYPIRG mocked some politicians for including tax breaks for TDP in their proposed energy bill.

Other environmentalists, however, believe that the technology could help the environment—and the U.S. "Obviously any technology that can turn human waste into something that benefits society is a sound investment," said Kevin Madonna, who represents a number of environmental groups. CWT also plans to turn waste from chickens, cows, hogs, onions, and even cheese into oil.

So next time you eat a turkey, hamburger, or chicken wing, remember that you could be biting into the future of fuel technology!



This factory equipment changes organic waste such as turkey guts into crude oil.

Photograph courtesy

Changing World

Technologies



Name (print): _____

Period #: _____

Date: _____

No Excuses!!

Turkey Guts into Fuel!!! Reading

Why we are doing this: to learn about how real scientists do real research and to practice getting information from text. Also we will learn about some new ways to make energy.

What to do: read the small article, and answer the questions as you read. Use correct, clear, and complete English sentences.

Before Reading:

1. What do you know about oil? How is it harvested? How is it refined?

During Reading:

2. What is Changing World Technologies?

3. How do they change turkey guts into oil?

4. Do you think this is a good idea? Why or why not?

5. What other items would you like to see recycled into oil?

6. If you had a job (or at the one you currently work) would you be willing to pay for more research on turning wastes into oil? What if we did the research at ESJH? Why or why not?

7. Reaction Space: For example: I found this interesting b/c I love turkey... or I hated this article because I would rather watch t.v. than read and let my brain rot =)