

## The Secret Life of A Potato

The Oklahoma Department of Environmental Quality is encouraging citizens to examine and rethink their consumption habits during the second Oklahoma Use Less Stuff Week from April 19-26, 2002. DEQ's Fenton Rood announced, "The DEQ wants to provide citizens with food for thought and viable alternatives to often wasteful habits through information available from our Use Less Stuff Campaign." Rood practices waste minimization in his own life, often riding his bicycle to work and striving to reduce amounts of paper consumption in the workplace. "This article examines the environmental impact of French fries, a popular American food, from start to finish," said Rood.

Listening to John C. Ryan, co-author of Stuff, the Secret Lives of Everyday Things, speak at the Oklahoma Environmental Education Expo in February of 2002 certainly made the crowd think about their consumption habits. Ryan confessed to the Expo attendees, "I am a compulsive consumer of french fries."

Ryan's last French fry purchase, a "biggie" order from Wendy's, was served in a bleached white, then dyed yellow and red paper carton made from pine pulp from an Arkansas mill. It was inside a bleached white sack with a bleached white then dyed yellow napkin. These packages no doubt required trees prepped in a pulp mill, which is fueled by oil, with about half probably from the Middle East and then bleached with chlorine, which is discharged along with other water waste into the nearest stream or river.

The ten-ounce potato took one-half square foot of sandy soil in Idaho's Snake River Valley to grow, along with seven gallons of water from the Snake River to irrigate. It was no doubt treated with fertilizers and pesticides to ensure that its shape and quality were just like all of the other potatoes. These chemicals probably accounted for about 38 percent of the farmer's expenses. If much of the fertilizer's nitrogen leaches into groundwater, that, plus concentrated salts, could make the water unfit--even for irrigation. It is likely some of the fertilizers and pesticides washed into streams when rain fell, and could have been toxic to mammals, fish and possibly birds through the skin and lungs. The Environmental Protection Agency's tests of waters in the Columbia Basin found agricultural contaminant in every tributary, including the Snake.

The potato was dug up by a diesel-powered harvester and transported to the processing plant where it was converted to five ounces of fries. The other five ounces of the potato went into a sludge waste that was sprayed on fields to dry. If excess nitrates seeped into the a drinking water source, they could cause blue baby syndrome. If a beauty parlor operating in the area used water with excess nitrates, someone's hair may have turned purple from a reaction with the nitrates.

Next the french fries were frozen, with electricity made from a hydroelectric dam on the Snake River. Salmon and fabulous white sturgeon living in the Snake River have been hampered from their journey back and forth from fresh water to salt water for forty years or more by these dams. It often takes **ten times** more energy to make frozen food than fresh food creating a much bigger demand on energy production, but fresh food is on the wane since frozen food is much more **convenient**. By 1990, Americans ate more frozen potatoes, mostly french fries, than fresh ones,

The fries were frozen using hydrofluorocarbon coolants, which have replaced the chlorofluorocarbons (CFCs) that harm the ozone layer. If some of the coolants escaped from the plant, they would likely have risen 10 miles up, into the stratosphere, where they could trap heat, contributing to the greenhouse effect. The frozen fries were transported to a retail market in Houston via an 18-wheel refrigerated truck. From the market, the fries were purchased by a Texas teenager who fried them in corn oil from Nebraska and served them up with salt mined in Louisiana and ketchup, made in Pittsburgh from Mexican tomatoes, and packaged in small plastic and aluminum pouches probably made in Ohio.

Ryan told us he did not mean to indicate that french fries are deemed an environmentally destructive food. He said they are middle-of-the-road in that regard, with their impact not even close to that of a hamburger. His point was that the issue of how we live and the choices we make in our daily life make impacts worldwide. Most of the resources needed to produce our "stuff" are used behind the scenes somewhere and not seen by us, **but everything we use has an ecological wake or a "secret life"**.

What can we do about all this "stuff" in our lives? Support sustainable agriculture. In Oklahoma, the Kerr Center for Sustainable Agriculture provides information, programs and funding: <[www.kerrcenter.com](http://www.kerrcenter.com)>. Instead of buying fried, over-packaged fast food, cook some organic produce for yourself and eat it on a real plate. Buy local foods or, best of all, grow your own. Garden produce is fresher, uses almost no energy except the sun, and puts to use un(der)used land -- your lawn. To find sources of locally grown, organic food, see: <[www.oklahomafood.org](http://www.oklahomafood.org)>. The Oklahoma Sustainability Network website: <[www.oksustainability.org](http://www.oksustainability.org)> suggests other resources for greening your life.

Ryan thinks we all agree that modern technology does wonders for us, but the American way of life has the biggest impact on the world's resources than any other country. We consume an average of 120 pounds a day in resources. We throw out approximately four pounds a day of waste, but most of this resource usage is in the "secret life" of items we consume and is unseen by us. Americans comprise only five per cent of the world's population, yet we use 24 per cent of the world's energy. We also own one-third of the world's cars, computers, paper and plastic.\*

Obviously, the solutions are often right under our noses. Ryan closed with a plea to the "roomful of super heroes", each with the power to do things better. Even though changing our habits to lower consumption patterns may not yield visible benefits to the environment, a little research on your part will convince you it is working. Just as our lives have much bigger impacts on the world than most of us realize, the benefits when we make simple choices to reduce our consumption of energy or stuff are much greater than we ever see.

For more details on the Use Less Stuff Campaign, contact campaign coordinator, Susie Shields, at <[susie.shields@deq.state.ok.us](mailto:susie.shields@deq.state.ok.us)> or 405.702.5166. Information is also available on the web: <[www.deq.state.ok.us](http://www.deq.state.ok.us)>.

\*Consumption figures from *"Statistical Abstract 1995"* and *"World Resources 1996-97."*

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