

## Top Paper in Environmental Policy: Eat locally, or eat differently?

"Food-Miles and the Relative Climate Impacts of Food Choices in the United States" by Christopher L. Weber and H. Scott Matthews, Carnegie Mellon University, **2008**, 42 (10), 3508–3513; DOI 10.1021/es702969f.

When Christopher Weber and H. Scott Matthews of Carnegie Mellon University published their *ES&T* paper last year, they didn't expect a backlash, but they got one. Their manuscript, *ES&T*'s top policy paper of 2008, examined the environmental benefits of eating locally grown foods and found them a bit lacking in the carbon-footprint department—eating less red meat and dairy turned out to be a better way to reduce greenhouse gases than an all-local diet, according to the pair's life-cycle assessment.

Soon, local eaters or "locavores" started peppering the authors with emails about a perceived attack on their way of life. "Which was not at all the intended purpose of the paper," Weber says. "The point of the paper was to say that yes, you can lower your footprint by eating local foods, but you can do more on average by eating differently. It's not that eating local is a crock," he says.

Matthews adds, "Chris and I both actually purchase food from local food co-ops and buy things locally. It's not at all that we don't believe in buying local, but carbon reductions should not be at the top of the list of reasons." The team found that eating an all-local diet saves the greenhouse gas equivalent of driving 1000 fewer miles each year, but eating a vegetarian diet 1 day per week is equal to driving 1160 fewer miles per year.

The authors were flooded with interview requests and have appeared in dozens of news stories since the paper was published. Weber has continued to reduce his own carbon footprint by cut-



H. Scott Matthews (left) and Christopher L. Weber check out the local veggies in a Pittsburgh grocery store.

ting back on energy-intensive meat and dairy, and he reports a surprising turn of events that further reduced his emissions: "I won a car!" he says. During a speaking engagement at a renewable-energy fair, he entered and won a raffle for a hybrid-electric Toyota Prius. "So I guess the way to lower your carbon footprint involves writing a paper about food-miles and then being extremely lucky," he says.

Food writer Michael Pollan has embraced the authors' ideas and recently suggested that President Obama lead the country in enacting "Meatless Mondays" at the White House (no word on whether the president has taken up his proposal). The idea of meatless Mondays first arose during World War I as a conservation effort, and it has reemerged as a health and environment saver. According to Pollan in a recent interview on *Bill Moyers Journal*, if all Americans eliminated meat from their diets one night per week, the environmental effect

would be equivalent to taking "30 to 40 million cars off the road for a year." Although Pollan did not mention the *ES&T* paper or authors by name, those numbers are consistent with, and in all likelihood drawn from, Weber and Matthews's work.

*ES&T* associate editor Laura Sigg of the Swiss Federal Institute of Aquatic Science and Technol-

ogy (Eawag) says the paper gives consumers important and useful information and quantifies greenhouse gas emissions "by sources which are often not considered."

The researchers are now working with a major software company to develop ways for businesses to better track their products' carbon footprints, and they're tallying the lifetime energy use and greenhouse gas emissions of online music services.

"And we would love to do more," Weber says.

—ERIKA ENGELHAUPT