

# Scientists study how climate change impacts food production

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The old adage, “We are what we eat,” may be the latest recipe for success when it comes to curbing the perils of global climate warming. Despite the recent popular attention to the distance that food travels from farm to plate, aka “food miles,” Carnegie Mellon researchers Christopher L. Weber and H. Scott Matthews argue in an upcoming article in the prestigious *Environmental Science & Technology* journal that it is dietary choice, not food miles, which most determines a household’s food-related climate impacts.

“Our analysis shows that despite all the attention given to food miles, the distance that food travels is only around 11% of the average American household’s food-related greenhouse gas emissions,” said Weber, a research professor in Carnegie Mellon’s department of civil and environmental engineering and engineering and public policy.

The researchers report that fruit, vegetables, meat and milk produced closer to home rack up fewer petroleum-based transport miles than foods trucked cross country to your table. Yet despite the large distances involved—the average distance traveled for food in the U.S. is estimated at 4,000-5,000 miles —the large non-energy based greenhouse gas emissions associated with producing food make food production matter much more than distance traveled.

The authors suggest that eating less red meat and/or dairy products may be a more effective way for concerned citizens to lower their food-related climate impacts. They estimate that shifting to an entirely local

diet would reduce the equivalent greenhouse gas emissions as driving 1,000 miles, while changing only one day per week's meat and dairy-based calories to chicken, fish, or vegetables would have about the same impact. Shifting entirely from an average American diet to a vegetable-based one would reduce the same emissions as 8,000 miles driven per year.

Source: Carnegie Mellon University

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