
REMAPPING DEBATE

Asking "Why" and "Why Not"

Stanford researcher readily acknowledges limitations of study on organic versus conventional food

Original Reporting | By Heather Rogers | Food, Food safety

September 10, 2012 — The [press release](#) sent out last week by Stanford University detailing its researchers' findings on organic versus non-organic food downplayed any health benefit derived from eating organic food. Much of the ensuing media coverage, including stories in the [New York Times](#), [Reuters](#), and [USA Today](#), took its lead from Stanford's press pitch. However, the paper itself, published in the *Annals of Internal Medicine*, included the significant finding that consumption of organic foods reduces exposure to pesticides and antibiotic-resistant bacteria. Just as important is what the study left out: key issues relating to the relative safety of organic versus non-organic foods were not examined.

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The report's stated purpose was to "comprehensively synthesize the published literature on the health, nutritional, and safety characteristics of organic and conventional foods." So Remapping Debate thought it would be useful to speak to one of the study's authors to understand any limitations on how the scientists met that stated task.

We spoke with Dr. Crystal Smith-Spangler, a practicing internist and research instructor at the Stanford University School of Medicine, who was one of the lead authors.

While the study looked for evidence of direct impacts on the consumers of organic and non-organic food, it didn't appear to consider the environmental impact of non-organic farming. How might the pervasive use of agrochemicals that

remain in soil and might leech into groundwater affect human health? What about the health and safety impacts of pesticides on farm workers?

Smith-Spangler was quick to admit the study did not address these questions.

"It was beyond the scope of our article to review and be able to really answer [those questions]. In these articles in the medical literature you aren't given unlimited word count," she explained.

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In terms of the level of pesticide residue and antibiotic-resistant bacteria, the study itself did acknowledge that levels are significantly higher in the non-organic products that people eat, but took the position that such levels are, in general, not grounds for concern. As for antibiotic-resistant bacteria, the study said that cooking food would kill all bacteria (although the study did not address the question of eating foods cooked at temperatures insufficient to kill bacteria, let alone super-bacteria).

In terms of pesticide limits, the study asserted that, in general, the levels found are within the safety limits set by the Environmental Protection Agency. Remapping Debate asked Smith-Spangler whether the regulatory limits are sufficiently protective of health and safety. She acknowledged that there is a debate about the pesticide safety limits set by the federal government, but didn't see that point as relevant to her report. "It's beyond the scope of our paper to discuss the federal limits," she said. "A study that would examine the question, 'Is the amount of pesticides in our food safe?' would include a lot more data on dose response and maybe some animal data. And there are lots of experts out there who can weigh in on that issue."

In the face of the various elements of health and safety not addressed by the study, Smith-Spangler still insisted that her team's findings were intended to provide the evidence on which consumers could base their decisions. "Our goal was to present the evidence and try to help people understand the evidence," Smith-Spangler said. "But our goal was not to tell people what or what not to do."

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