

Stanford Research on Organics Hits the Stats, but Misses the Point

By: Lisa J. Bunin, Ph.D. Organic Policy Director, Center for Food Safety

September 7th, 2012

Originally published on Center for Food Safety Website



“Are Organic Foods Safer or Healthier than Conventional Alternatives?” Stanford University researchers attempted to answer this question in their [recently released analysis](#) of published literature on the health, nutrition and safety of organic and conventional foods. The study has definitely kicked up a lot of dust—some of which is based upon questionable number crunching, and it largely misses the point of why organically grown food is a superior choice. In fact, it’s fair to say that the study itself erroneously characterizes what defines “safer or healthier” food and misjudges the critical importance of the farming systems used to produce it. The confusion this creates—and the potential misinformation it can spread—needs addressing.

While the limited nutrition factors the study compares showed marginal differences at best, that’s a moot point. It’s not the nutritional features that distinguish organic from conventional food that are most relevant; it’s the safer, healthier growing practices that define the organics sector that deserve focus. Safer and healthier for the environment, farmworkers and wildlife. Safer and healthier for human consumption. While the study’s conclusion offers a passing nod to this difference, its authors fail to recognize the overwhelming importance of the quality of growing practices as the defining difference between the two production methods. Their conclusion?

The evidence does not suggest marked health benefits from consuming organic versus conventional foods although organic produce may reduce exposure to pesticide residues and organic chicken and pork may reduce exposure to antibiotic resistant-bacteria.

In the studies they examined, pesticide residues were found on 7% of organic produce samples, versus residues on 38% of conventional produce samples. Given this one piece of data alone,

their conclusion is baffling. According to [Dr. Charles Benbrook's calculations](#), using the same data used by Stanford researchers, the risk is even lower. His calculations show “an overall 81% lower risk or incidence of one or more pesticide residues in the organic samples compared to the conventional samples.” Wouldn't such a dramatic reduction of ingested pesticides represent “marked health benefits”? Based upon the study's own review of what constitutes “organic,” consumers who buy organic are assured that they will avoid toxic chemicals in their food, water, air and land. Exactly who doesn't think that sounds like a safer, healthier eating experience?

The quality and composition of the meat we consume is another critical component of the organic food landscape. Antibiotic resistance is a huge public health concern, and it's [another reason why people buy organic meat](#). A recent Consumer Reports [public opinion poll](#) found that 72% of those asked responded that they were either “very concerned” or “extremely concerned” that widespread use of antibiotics would lead to antibiotic-resistant superbugs. The good news for organic consumers is that the Stanford study confirms that organic food is safer in this regard. Where was that meaningful factoid in the headlines we've seen in the media? Researchers actually found that the risk of finding bacterial resistance to three or more antibiotics was 33% higher in conventionally raised grown chickens and pigs than in those that are organically raised.

Putting their unremarkable basic nutritional evaluations aside, the real question Stanford researchers needed to ask and answer is: what are the health concerns that motivate people to choose organic over conventionally grown foods? People eat organic fruits and vegetables because they are grown without the use of synthetic pesticides, herbicides, genetically engineered seed, and sewage sludge. They buy organic meat and dairy because organically raised farm animals are not routinely administered synthetic growth hormones or antibiotics, like their conventional counterparts. Other benefits include the fact that these animals are required to be pastured and fed a 100% organic diet, which cannot include poultry litter or animal by-products. Certified organic practices also require the humane treatment of animals, which is not the reality for conventionally reared animals. Moreover, all organic food must be certified by an independent third-party certification organization, which means that USDA-deputized agents annually inspect organic farms and their records to ensure compliance with the Organic Food Production Act.

For people who regularly purchase organic food, it is inconceivable that food repeatedly sprayed with toxic chemicals has no long-lasting, detrimental effects on their health. They understand that agrochemicals kill most, if not all, of the living organisms in the soil, and that adding synthetic fertilizers to feed crops depletes rather than builds soil, as required in organic farming systems. Agrochemicals can leach into the groundwater, rivers, streams, and the ocean, disrupting natural ecosystems, killing aquatic life and causing eutrophic “dead zones.” Organic consumers support ecological-based farming methods that enhance the soil's own natural fertility through the use of good farm stewardship practices, including composting, crop rotations and intercropping to attract beneficial insects and fix atmospheric nitrogen into the soil. That way, plants uptake nutrients from the soil, and not from synthetic chemicals.

Despite some of the misleading, shock headlines that appeared when the study was first released, including, [Stanford Scientists Cast Doubt on Advantages of Organic Meat and Poultry](#) (The New York Times) and [Little evidence of health benefits from organic foods, Stanford study finds](#),

(Stanford School of Medicine website), a more accurate and informed one came from the Organic Trade Association's response, [Stanford research confirms health benefits driving consumers to organic](#). This is good news for organic consumers and anybody who wants to join them. Good news that seems to have been hidden from view in the Stanford report. In the end, the headline we should be seeing more and more came from Consumer Reports: [Don't Give Up on Organic Food](#).