Organic – Pro

General

A. Organic just as flavorful/appealing

Trace Amrstrong Florian (MS in food sciences) and Dr. Scottie Misner (PhD in nutrution, associate nutrition specialist in the Department of Nutritional Sciences at the University of Arizona), August 2013, University of Arizona College of Agriculture and Life Sciences Cooperative Extension, "Organically grown foods versus non-organically grown foods", accessed August 8, 2016, http://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1603.pdf (page 2)

The information from the studies below also shows no significant flavor difference between organically grown and conventionally grown foods. Instead, taste differences appear to come from the food variety, its growing conditions, and its maturity and harvest time. Unlike the past, most of today's organic foods compare very favorably in appearance with conventionally grown foods.

Organic is Superior

A. Study: Organic eliminates pesticides from children's urine

Prof. Chensheng (PhD, associate professor of environmental exposure biology at Harvard, ad hoc member of the US EPA Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel), June 16, 2013, The Wall Street Journal, "Yes: It's Common Sense to Try To Avoid Pesticide Exposure", accessed October 16, 2016, http://www.wsj.com/articles/SB10001424127887324063304578525342828282504

While studies in recent years have delivered a decidedly mixed message about the healthfulness of organic food, those on both sides of the debate generally agree that organic produce typically contains fewer pesticides than conventional produce, and that people may be able to reduce or eliminate agricultural chemicals from their bodies by adopting an organic diet. This was illustrated in a study published in the journal Environmental Health Perspectives in 2006. That study, which I led, showed that within five days of substituting mostly organic produce for conventional produce in children's diets, pesticides disappeared from the children's urine.

B. Comparable prices when bought in season

Prof. Chensheng (PhD, associate professor of environmental exposure biology at Harvard, ad hoc member of the US EPA Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel), June 16, 2013, The Wall Street Journal, "Yes: It's Common Sense to Try To Avoid Pesticide Exposure", accessed October 16, 2016, http://www.wsj.com/articles/SB10001424127887324063304578525342828282504

Yes, organic food typically costs more and can be harder to find than traditional food, but one could argue that the price of conventional food is artificially low because of all the subsidies that organic farmers don't get and that the government could do more to help organic farmers lower their costs. Nevertheless, when bought in-season, organic produce is often comparable in price to conventional produce.

C. Organic reduces health risk by up to 94%

David C. Holzman (science writer), December 2012, Environmental Health Perspectives, Vol. 120, No. 12, "Organic Food Conclusions Don't Tell the Whole Story", accessed October 16, 2016, http://ehp.niehs.nih.gov/wp-content/uploads/2012/11/ehp.120-a458.pdf

In a letter accepted for publication in the *Annals of Internal Medicine,* Benbrook pointed to the Stanford team's lack of consideration of extensive government data on the number, frequency, potential combinations, and associated health risks of pesticide residues in U.S. food. Using data from the U.S. Department of Agriculture's Pesticide Data Program, Benbrook calculated a 94% reduction in health risk attributable to eating organic forms of six pesticide-intensive fruits.

D. Existing studies and common sense suggest benefits

Prof. Chensheng (PhD, associate professor of environmental exposure biology at Harvard, ad hoc member of the US EPA Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel), June 16, 2013, The Wall Street Journal, "Yes: It's Common Sense to Try To Avoid Pesticide Exposure", accessed October 16, 2016, http://www.wsj.com/articles/SB10001424127887324063304578525342828282504

But let's be clear: Some convincing scientific does exist to suggest that an organic diet has its benefits. What's more, it only makes sense that food free of pesticides and chemicals is safer and better for us than food containing those substances, even at trace levels.

E. A/T "Annals of Internal Medicine meta study": Left out important data

Prof. Chensheng (PhD, associate professor of environmental exposure biology at Harvard, ad hoc member of the US EPA Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel), June 16, 2013, The Wall Street Journal, "Yes: It's Common Sense to Try To Avoid Pesticide Exposure", accessed October 16, 2016, http://www.wsj.com/articles/SB10001424127887324063304578525342828282504

Organic skeptics like to cite a meta-analysis study published in the Annals of Internal Medicine last year that suggested organic foods are neither healthier nor more nutritious than their conventional counterparts. Left out of that analysis, however, were recent field studies showing that organic produce, such as strawberries, leafy vegetables and wheat, not only tastes better but contains much higher levels of phenolic acids than conventional produce. Phenolic acids are secondary plant metabolites that can be absorbed easily through the walls of intestinal tract, and can act as potent antioxidants that prevent cellular damage, and therefore offer some protection against oxidative stress, inflammation and cancer.

F. A/T "post-harvest contamination": Moot point

Prof. Chensheng (PhD, associate professor of environmental exposure biology at Harvard, ad hoc member of the US EPA Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel), June 16, 2013, The Wall Street Journal, "Yes: It's Common Sense to Try To Avoid Pesticide Exposure", accessed October 16, 2016, http://www.wsj.com/articles/SB10001424127887324063304578525342828282504

As for suggestions that organic food is just as susceptible to bacterial contamination as regular food, that is off point. That type of contamination can happen after harvesting and often has nothing to do with how food is grown. Knowing that we could reduce our exposure to pesticides and increase our exposure to antioxidants by eating organic food, it makes great common sense to consume more of it.

G. A/T "no good studies": Lack of funding, not lack of evidence

Prof. Chensheng (PhD, associate professor of environmental exposure biology at Harvard, ad hoc member of the US EPA Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel), June 16, 2013, The Wall Street Journal, "Yes: It's Common Sense to Try To Avoid Pesticide Exposure", accessed October 16, 2016, http://www.wsj.com/articles/SB10001424127887324063304578525342828282504

Is there definitive scientific proof that an organic diet is healthier? Not yet. Robust scientific studies comparing food grown organically and food grown conventionally don't exist, thanks to a lack of funding for this kind of research in humans. The lack of definitive evidence - combined with the higher price of organic food - has given skeptics a golden opportunity to argue that organic isn't worth the cost and effort. But let's be clear: Some convincing scientific does exist to suggest that an organic diet has its benefits.

H. A/T "Stanford study": Omitted data

David C. Holzman (science writer), December 2012, Environmental Health Perspectives, Vol. 120, No. 12, "Organic Food Conclusions Don't Tell the Whole Story", accessed October 16, 2016, http://ehp.niehs.nih.gov/wp-content/uploads/2012/11/ehp.120-a458.pdf

A widely reported Stanford University study concluding there is little difference in the healthfulness and safety of conventional and organic foods has been criticized by experts in the environmental health sciences for overlooking the growing body of evidence on the adverse effects of pesticides. Critics take to task the authors' omission of relevant studies and over interpretation of the data.

Disadvantage: Pesticide Exposure

A. Linke: Even "safe" pesticide exposure levels are harmful

Prof. Chensheng (PhD, associate professor of environmental exposure biology at Harvard, ad hoc member of the US EPA Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel), June 16, 2013, The Wall Street Journal, "Yes: It's Common Sense to Try To Avoid Pesticide Exposure", accessed October 16, 2016, http://www.wsj.com/articles/SB10001424127887324063304578525342828282504

Many say the pesticides found in our food are nothing to fear because the levels fall well below federal safety guidelines and thus aren't dangerous. Similarly, they say the bovine growth hormone used to increase cows' milk yield is perfectly safe. But federal guidelines don't take into account what effect repeated exposure to low levels of chemicals might have on humans over time. And many pesticides were eventually banned or restricted by the federal government after years of use when they were discovered to be harmful to the environment or human health.

B. Impact: Avoiding pesticide exposure reduces cancer risk

Prof. Chensheng (PhD, associate professor of environmental exposure biology at Harvard, ad hoc member of the US EPA Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel), June 16, 2013, The Wall Street Journal, "Yes: It's Common Sense to Try To Avoid Pesticide Exposure", accessed October 16, 2016, http://www.wsj.com/articles/SB10001424127887324063304578525342828282504

Pesticides, in particular, are made to kill organisms, and the President's Cancer Panel in 2010 made clear that it sees them as a threat, advising Americans to "reduce their cancer risks by choosing, to the extent possible, food grown without pesticides or chemical fertilizers."

C. Link: Pesticide exposure lowers IQ

David C. Holzman (science writer), December 2012, Environmental Health Perspectives, Vol. 120, No. 12, "Organic Food Conclusions Don't Tell the Whole Story", accessed October 16, 2016, http://ehp.niehs.nih.gov/wp-content/uploads/2012/11/ehp.120-a458.pdf

The Stanford researchers also missed opportunities to examine the relationship of pesticides and health outcomes demonstrated in a growing number of cohort studies, says Brenda Eskenazi, a professor in the School of Public Health at the University of California, Berkeley. Eskenazi conducted one such study, one of a trio published in April 2011 that examined the relationship between cognitive development and prenatal pesticide exposures in two multiethnic inner-city populations and one farmworker community in California. One of the studies found deficits of 7 IQ points in 7-year-old children in the highest quintile of pesticide exposure, compared with children in the lowest quintile, as measured by maternal urinary pesticide metabolite levels during pregnancy. Results were comparable in the other two studies.

D. Impact: Subtle yet substantial impact on broader health/intelligence

David C. Holzman (science writer), December 2012, Environmental Health Perspectives, Vol. 120, No. 12, "Organic Food Conclusions Don't Tell the Whole Story", accessed October 16, 2016, http://ehp.niehs.nih.gov/wp-content/uploads/2012/11/ehp.120-a458.pdf

In concluding that the evidence "does not suggest marked health benefits from consuming organic versus conventional foods," many commenters, including Eskenazi and Benbrook, felt the Stanford team ignored risks to broader public health like those outlined in an April 2012 review by David C. Bellinger, a professor of neurology at Harvard Medical School. In his review Bellinger argued that subtle impacts of organophosphate pesticides on neurodevelopment can add up to substantial population-level impacts. He wrote, "It is frequently noted that a modest downward shift in mean IQ scores will be accompanied by a substantial increase in the percentage of individuals with extremely low scores.